The 21st Century Guitar

Volume 1 *Proceedings of The 21st Century Guitar Conference 2019 & 2021*

Article 21

5-8-2023

Modes of listening in the interpretation of electroacoustic music

Lauren Wilson
Eastman School of Music

Modes of listening in the interpretation of electroacoustic music

Abstract

A cursory look through the literature on modes of listening reveals a wealth of different ways to attend to one's sonic environment. Authors in the literature describe various, nuanced modes to frame one's listening, and yet the terms also have central commonalities. In this essay, I explain that bringing these authors into dialogue with one another in a way that emphasizes these commonalities provides a rich interpretive tool, particularly for electroacoustic music. These different listenings ultimately compose my analysis, and I suggest that consciously engaging with modes of listening can shape listener experiences of electroacoustic music in analytically fruitful ways. Natasha Barrett's Deconstructing Dowland for guitar and electronics provides an aural realm in which to consider how one might usefully employ modes of listening as an analytical tool. The music possesses more potential listening experiences than a sound's single pass through the auditory system can perceive. When I consciously think about my approach to listening, however, the soundscape becomes a laboratory in which to explore the music from any perceptible angle. After gaining the intimate familiarity with the piece that analysis requires, I can begin the familiar analytical process of examining plausible interpretations to construct a coherent reading. Here, active engagement with modes of listening directs analytical decisions as the music and I construct my reading of the piece by drawing upon the four modes I propose. Overall, the typology I propose allows us access to meaningful analytical engagement with a repertoire whose vocabulary and notational particularities can hinder other methodologies.

Keywords

listening, electroacoustic, phenomenology, analysis, interpretation

Cover Page Footnote

Lecture given at The 21st Century Guitar Conference 2019.

PROCEEDINGS OF THE 21ST CENTURY GUITAR CONFERENCE 2019 & 2021
R. Torres, A. Brandon & J. Noble (Eds.), 2023

Modes of listening in the interpretation of electroacoustic music[1]

Lauren Wilson
Eastman School of Music

A cursory look through the literature on modes of listening reveals a wealth of different ways to attend to one's sonic environment. Authors in the literature describe various, nuanced modes to frame one's listening, and yet the terms also have central commonalities. In this essay, I explain that bringing these authors into dialogue with one another in a way that emphasizes these commonalities provides a rich interpretive tool, particularly for electroacoustic music. These different listenings ultimately compose my analysis, and I suggest that consciously engaging with modes of listening can shape listener experiences of electroacoustic music in analytically fruitful ways.

Natasha Barrett's *Deconstructing Dowland* for guitar and electronics provides an aural realm in which to consider how one might usefully employ modes of listening as an analytical tool. The music possesses more potential listening experiences than a sound's single pass through the auditory system can perceive. When I consciously think about my approach to listening, however, the soundscape becomes a laboratory in which to explore the music from any perceptible angle. After gaining the intimate familiarity with the piece that analysis requires, I can begin the familiar analytical process of examining plausible interpretations to construct a coherent reading. Here, active engagement with modes of listening directs analytical decisions as the music and I construct my reading of the piece by drawing upon the four modes I propose. Overall, the typology I propose allows us access to meaningful analytical engagement with a repertoire whose vocabulary and notational particularities can hinder other methodologies.

The ways we direct our auditory system to process acoustic information – our *mode of listening* – greatly affects what we do with that information. In our everyday encounters with the world, we do not typically select our mode of listening consciously, yet it plays a crucial role in the information we receive from a sound. Imagine two scenarios. First, I put on my headphones and begin listening to an unknown track. As the music begins, sounds gradually amass into cacophony – a ping from the left, static to the right; abrasive, pitched percussion inches from my ear, and at the same time, a whirring sound quickly approaches from the distance. Soon: silence. What did I just hear? How do these sounds fit together? Which ones will come back later? Now, consider an alternative situation: I put on my headphones and carefully scroll through my library to play Natasha Barrett's *Deconstructing Dowland* for guitar and electronics. I hear exactly the same set of sounds, but in this situation, my questions differ. Which sounds are the guitar? Where is the Dowland song? These two listening situations contain identical sonic information, but because of different contextual information, I approach my listening differently.

In this paper, I demonstrate how consciously engaging with and manipulating modes of listening can create a musical analysis. The significant body of work examining modes of listening spans a variety of contexts, from writings on composition and theory to philosophy and sound studies. After discussing this literature very briefly, I explore how and why we might bring these modes into dialogue with each other. With this theoretical framework in place, I turn to Natasha Barrett's piece to demonstrate the different listening experiences conscious engagement with modes of listening can afford. The listener-centered observations I offer comprise my analysis of the piece, and I explain how this type of analysis provides a fruitful way to engage with electroacoustic music.

[1] Lecture given at The 21st Century Guitar Conference 2019.

Modes of listening in general

Fundamentally, one's mode of listening determines what the auditory system does with a given sound. The auditory system, primed intentionally or unintentionally for a specific way of engaging with sound, takes in the sound and processes it as our listening experience. Modes of listening first entered mainstream musical discourse in Pierre Schaeffer's 1966 Treatise on Musical Objects. Aiming to guide the ears of his contemporaries toward an appreciation of his musique concrète, Schaeffer identifies four modes of listening one can experience. Schaeffer's ideas about sound, drawn from the phenomenology of Husserl, occupy both the noetic and noematic sides of sonic experience. The modes of listening, *ouïr*, *comprendre*, *écouter*, and *entendre* are noetic responses to the noema, the object of one's actions. In Schaeffer's case, the particular qualities of a given sound object mandate an appropriate mode of listening. While many authors who theorize on human experience of sonic events lay out a clear distinction between hearing and listening, Schaeffer does not. Although he is not concerned explicitly with differentiating hearing and listening – recall his primary agenda of teaching audiences to understand his music – differences appear implicit within his more specific definitions (Schaeffer, 1966/2017).

As the first mode, *ouïr* serves as a sound's first point of contact with a listener and often translates to "perception." For Schaeffer, it "constitutes the '*fond sonore*' shared by all other . . . ways of attending to the sonorous world" (Kane, 2014, p. 27). *Ouïr* is passive, requiring neither attention nor intention to experience. The other three modes in Schaeffer's typology are active. *Comprendre* (to comprehend) aims at gathering the meaning from a sound by treating it as a sign that belongs to some kind of language. A sound is not evaluated for its acoustic or morphological properties, but for the message that sounds with these particular properties signify. These two modes seem to lie at the extremes of sonic perception, with *ouïr* its most primal and *comprendre* its most cerebral.

Between these two extremes, Schaeffer's remaining modes occupy a large section of his focus. Commonly, the verbs *entendre* and *écouter*, equivalents of the English to hear and to listen, "describe the active and passive modes of listening" (Kane, 2014, p. 27). This does not seem to reflect Schaeffer's use of these words, however. *Écouter* is "active, situated, positional, and indexical," which does indeed position it as an active mode of engagement with one's environment (Kane, 2014, p. 27). Immediately, we hear sounds as indices of surrounding objects and events, and in doing so, we also identify the source of a sound. Yet, *entendre*, under which one "attends to sounds as such", could hardly be passive if it is "used to focus the listener" on the unique sonic qualities of a given sound object (Kane, 2014, pp. 28-29). Schaeffer emphasizes the latin root of *entendre*, *intendere*, and thus maintains the presence of intentionality in this mode of listening. Recalling Schaeffer's "prescriptive agenda" to advocate for the mode of listening that he felt best suited his new *musique concrète* highlights the necessity of this emphasis; he, of course, would not want to suggest that his music is best heard passively (Clarke, 2005, p. 144). Through the intentional – but non-indexical – *entendr*e, one engages in Schaeffer's ideal state of hearing: *reduced listening*. This type of hearing allows one to hear a sound as itself, rather than as a representation of something else, by bracketing *écouter* and *comprendre*.

Authors have continued to develop modes of listening, both by elaborating upon Schaeffer's and by theorizing their own. Table 1 shows a sampling of authors who have discussed modes of listening. Each author understands the modes to be ways the auditory system processes information to shape experiences of sound. Clearly, there are many different systems for parsing one's hearing, and each one highlights different aspects of interacting with sound. My purposes here don't require considering the nuances of each individual mode, as the synthesis modes I present will demonstrate. Still, a cursory

examination of some key authors clarifies the necessity of developing a vocabulary to speak generally about modes of listening.

Table 1 Modes of listening categorized by author

Author	Modes of Listening	Other Terms for Aural Attention
Roland Barthes (1985)	Alert, Deciphering, Contextualizing [my term for Barthes's "third mode"]	Hearing
Michel Chion (1983/2009)	Ouïr, Comprendre, Écouter, Entendre	N/A
Jean-Luc Nancy (2002/2007)	Listening	Hearing
Pierre Schaeffer (1966/2017)	Ouïr, Comprendre, Écouter, Entendre	N/A
Barry Truax (1984)	Listening-in-search, Listening-in-readiness, Background listening	Hearing
Tuuri and Eerola (2012)	Connotative mode and sub-categories within: Source-oriented, Context-oriented, Quality-oriented	Reflexive Mode

Speaking more generally about listening, Roland Barthes's essay "Listening" establishes a clear distinction between hearing, a physiological phenomenon, and listening, a psychological act. Hearing depends upon acoustics and the physiology of the ear. Listening, on the other hand, is multidimensional. Barthes, like Schaeffer, talks about listening to an object, yet Barthes's concept of an object with regard to listening differs fundamentally from Schaeffer's. He says that that "listening cannot be defined only by its object or, one might say, by its goal," which suggests that Barthes's object does not have the autonomy of Schaeffer's sound object (Barthes, 1985, p. 245). Still, Barthes proposes that listening has three general types. *Alert* is the mode shared by all living beings in which one perceives sound. Animals and humans in this listening mode turn their hearing toward specific indices. Here, one can already detect a difference between Barthes's first concept of listening and Schaeffer's. While *Ouïr* is omnipresent and passive, alert is indexical (Barthes, 1985, p. 245). Thus, passive listening is not possible in Barthes's system, and any unconscious reception of sound stops at hearing – precursor to any of Barthes's three listening modes.

Barthes's second listening mode, *deciphering*, first begins to differentiate human from animal. Here, one processes the sounds they take in according to certain signs before they reach the third listening mode. Barthes does not name this third mode, but notes that it is the most modern of the three. It is concerned with "who speaks, who emits" (Barthes, 1985, p. 246). In doing so, listening contributes to an intersubjective space and makes possible compassion and understanding (Jing, n.d.). I will call this mode *contextualizing*. While Barthes does not offer examples of what one might hear under a particular listening mode, he seems to think that humans progress through all three modes in response to hearing a sound. In any mode then, one will identify a sound (alert), interpret its meaning (decipher), and contextualize it (the third mode). This process aligns most nearly with Schaeffer's concept of *comprendre* in that the end result is an understanding of meaning. Thus, Barthes's concept of listening inhabits the specific portion of Schaeffer's modes that focus on interpretation.

Electronic composer Barry Truax considers modes of listening in his book Acoustic Communication. For Truax, a communicational approach to acoustics deals with the exchange of information rather than a transfer of energy; it considers sound alongside the cognitive processes that understand it. This

distinguishes it from methods of acoustic investigation more concerned with signal processing and energy transfer (Truax, 1984, p. 9). Like Barthes, Truax divides the reception of sound into the categories hearing and listening. Hearing processes acoustic energy in the form of sound waves and vibrations, and the ear and brain receive the information at minutely varied times. The timing of information given to the brain by the hearing ear offers perspectives on the spatial relationships in one's environment (Truax, 1984, p. 15). This definition of hearing is significantly broader than Barthes. For Truax, hearing is capable of providing information to the brain, whereas Barthes's hearing and Schaeffer's *ouïr* only receive information. For these authors, the point at which the ear communicates a sonic stimulus begins listening.

Listening in Acoustic Communication involves interpreting the heard information, and although it can take place at varying levels of attention, it is always "consciously controlled" (Truax, 1984, p. 16) These differing levels of attention correspond to three differing levels of listening that Truax terms *listening-in-search*, *listening-in-readiness*, and *background listening* (Truax, 1984, pp. 19, 20). Each of these levels necessarily begins with hearing, and engagement with a particular level depends upon the purpose of one's listening. Listening-in-search, the most active level of listening, prioritizes detail and tends to focus on a single sound or group of sounds while excluding others. A level of attention removed from listening-in-search, listening-in-readiness prepares us to receive significant information, even while focusing our attention elsewhere. For example, while walking down a sidewalk people may direct their attention to their inner thoughts, yet typically maintain enough aural awareness to hear someone walking up behind them and move aside. Finally, Truax's most detached form of listening, background listening, occurs when a heard sound remains in the background of one's consciousness. It occupies a level slightly above mere hearing, though. We maintain enough awareness of the sound that, if asked later whether we heard the sound, we could probably recall it. This level of listening maintains an important distinction from "subliminal" perception in which one would totally lack awareness of a sound, yet "later behavioral evidence" would suggest one had indeed heard the sound (Truax, 1984, p. 21).

In his essay *Listening*, Jean-Luc Nancy (2002/2007) also explores different modes through which one might hear a sound. Like Barthes and Truax, Nancy primarily explains a distinction between hearing and listening, but his conclusions differ from these authors.[2] First, he explains that he believes philosophy often defines listening as something "more on the order of understanding" (p. 1). Such a definition would imply that philosophy equates listening with Schaeffer's *comprendre*, and would provide a relatively narrow interpretation of the word among the writers considered. Nancy thinks listening has a broader meaning than this, though, and considers the original meaning of the word *écouter*. The word *écoute* "designated a place where one could listen in secret," and for Nancy, intent listening occurs when one aims to "capture or surprise the sonority rather than the message" (pp. 4–5) This focus on the qualities below a sound's signifying or representational surface – and thus on its 'secrets' – echoes Schaeffer's sound object. Nancy and Schaeffer are the only authors discussed thus far who conceive of a conscious mode of listening that can take place without reference to a sound's source. Barthes and Truax would classify such a non-indexical sensing under hearing, yet their definitions of hearing also exclude the essential element of intentionality that listening beyond a sound's signification requires.

More recent work by Kai Tuuri and Tuomas Eerola (2012) considers the modes of listening discussed by these and several other authors including David Huron and Michel Chion. Tuuri and Eerola draw upon work in perception and embodied cognition to connect modes of listening more explicitly with experience. The modes of listening provide "different ways of making sense of potentially the same sound" (p. 137). In

[2] Brian Kane (2012, 2014) explores Nancy's ideas about hearing and listening, and their intersections with Pierre Schaeffer extensively.

addition to the various perspectives of one sound afforded by multiple listening modes, different modes also appeal to "different aspects of coping with the world" (p. 137). These two intentions for forming their taxonomy, then, confirm at least two things about the function of modes of listening in music: First, we can choose how we listen, and in doing so, can perceive different features within a sound. Though, as previous authors have asserted, indexical modes of listening like *écouter* tend to be our most automatic response to a sound, they do not have to be our only response. In fact, allowing for the application of multiple listening modes can account for the variety of different interpretations and meaningful experiences people hear in response to a single physical sound (Tuuri & Eerola, 2012, p. 138). All modes of listening can theoretically apply to a given sound, but some aural stimuli may "induce the activation of certain modes more strongly than others" (Tuuri & Eerola, 2012, p. 138). Tuuri and Eerola do not detail specifically what kinds of sounds might encourage specific listening modes, but the implications of this concept have significant consequences for musical experience that I will explore shortly.

After detailing the listening modes described by other authors, Tuuri and Eerola (2012) identify their eight modes of listening that include two "pre-attentive" modes, two "source-oriented" modes, three "context oriented" modes, and a "quality-oriented" mode. These modes exist in a hierarchy of low to high levels of cognitive abstraction, but, they emphasize, the modes are highly interactive (p. 141). The pre-attentive modes focus on more passive modes of listening: *reflexive listening*, which we do not undertake consciously, and *connotative listening*, which focuses on "early associations, mental images, and feelings" evoked by a particular sound (p. 141).

The next level of Tuuri and Eerola's (2012) listening hierarchy, source-attentive modes, include the *causal* mode and the *empathetic*. The causal mode aligns closely with the other discussed indexical modes of listening. Like *écouter*, Truax's hearing, and alert, the causal mode of listening attends to a sound's source. The empathetic mode of listening relates closely to the causal, but in addition to identifying a sound's source, this mode of listening tries to obtain information about the sound's affect. This mode seems to form a sub-category of Schaeffer's *comprendre* or Barthe's contextualizing, in that in addition to identifying a sound's source, the listener uses attributes of the sound to deduce information (specifically about affect, in this case). After identifying the source of an aural stimulus, focus can turn to its context, for which Tuuri and Eerola name three modes. *Functional listening* concentrates on "denoting functional purposes of sounds," and the authors provide a broad-reaching definition of "function" that includes fire alarms signaling danger, music suitable for relaxation, and transitional cues in audiovisual narratives (p. 142). The authors give only a brief definition of the *semantic* mode, which denotes "arbitrary meanings" that a sound might represent (p. 142). It is not clear how these meanings differ from the sound's affect provided by the empathetic mode or the function inferred by the functional mode. The final mode of context-oriented listening it the *critical approach*, in which one reflects on the appropriateness of a perception. It is through critical listening that the auditory system acknowledges the potential for misunderstanding a sound, evaluates its aesthetic values, and interrogates one's reaction to the sound (p. 142). Tuuri and Eerola's final mode, *reduced listening* mirrors Schaeffer's of the same name. Like Schaeffer, they note that, despite this mode's avoidance of sound indexing, reduced listening is highly intentional. Resisting the automatic urge to attend to a sound's source or meaning typically involves "high-level self-conscious cognitive reflection" (p. 142), and Schaeffer himself describes reduced listening as a new "listening intention" (Chion, 1983/2009, p. 27).

These 20 modes just scratch the surface of options, and as Tom Rice (2015) observes in Keywords in Sound, "these taxonomies of listening have . . . created what can feel like an infinite regress, where modes of listening continually proliferate without necessarily interlinking or building on one another in productive ways" (Rice, 2015, p. 104). While it is important to recognize, for example, that Barry Truax's (1984)

listening in search and Michel Chion's (1988/2016) causal listening differ in their details, it is perhaps more helpful to note that both of these modes ultimately focus on attending to the physical source of a sound, as opposed to its meaning. A commonality-emphasizing approach such as this can prove useful in interpreting music both as performer and listener, and it is the approach I draw upon in my analysis of Natasha Barrett's piece.

Methodology

Placing an interrogation of our listening process at the forefront of our analysis is particularly helpful in working with electroacoustic music for a few reasons. First, the score of an electroacoustic piece is an unreliable indicator of what the music sounds like; it may not notate all of the sounds heard in the piece. Second, sounds that we hear may be unidentifiable, unmatched with anything we have heard previously. Finally, electroacoustic music frequently obscures relationships between sounds and sound sources. Modes of listening are a powerful analytical tool, for both listeners and players of electroacoustic music, so I aim to remedy the dilemma Rice identified by bringing the modes from Table 1 into dialogue with each other. Table 2 presents a re-ordering of Table 1, now arranged by general listening intention. Examining the modes in this way allows commonalities previously obscured to emerge. For example, the row titled "other intentional ways of listening" include Schaeffer's *Entendre*, Tuuri and Eerola's (2012) "quality oriented" listening modes, and Truax's (1984) Listening in readiness. Each of these focus on listening to what Schaeffer termed "sound objects" – that is, sounds as they are, before any meaning or connotation is added. Though studying these modes for another purpose might rely very much on the difference between each of them, the analytical work I am concerned with here does not. Instead, I am interested in how I interpret the sounds of Barrett's piece when I listen in this non-indexical, qualitative way. To streamline the process of bringing these and other modes together, I have designated four "synthesis modes" in the detached row of Table 2.

Table 2 Listening modes recategorized by commonality inform my synthesis modes (detached)

General listening intention	Listening modes
Passive aural perception	To perceive aurally, Reflexive, Nancy's hearing, Barthes's hearing
Other passive listening	Background listening
Non-interpretive, indexical listening	Truax's hearing, Schaeffer's to listen, Alert, Source-oriented modes
Interpretive, interrogatory listening	To comprehend, Contextualizing, Context-oriented modes
Other intentional ways of listening	Schaeffer's to hear, Reduced listening, Listening-in-search, Listening-in-readiness, Deciphering, Quality-oriented

Hearing	Indexical listening	Interpretive listening	Non-indexical, qualitative listening

The first synthesis mode, Hearing, describes passive aural perception. As the modes that fall into this category define it, hearing does not bring any specific listening intention to a sound, and observations are made in hindsight. Since my analysis will focus on ways of listening for purposes of interpretation and analysis, this mode is not needed here. The next mode "indexical listening" deals with the physical source of a sound. Observations here might include the interpretation of dialogue between instruments or assessment of fit between a particular sound and its source, for example. An "interpretive" listening brings sound into context with prior conceptual knowledge. An interpretive listener might, for instance, consider a sound heard in dialogue with knowledge of other repertoire or in relationship to learned formal or harmonic concepts. Finally, "non-indexical, qualitative" listening attends to features of the sound outside of conceptual knowledge and physical sound sources. Instead, it focuses on gaining insight into textural and timbral features of a sound. Rather than categorizing sounds in an orchestra by instruments, for example, one might consider the "sharp" or "bright" sounds in relation to some other musical feature. With these definitions in place, we can continue to Barrett's *Deconstructing Dowland*. In discussing this piece, I demonstrate how engaging with different modes of listening can shape an interpretation.

Analysis

Preliminaries

Deconstructing Dowland was written in 2009 with guitarist Stefan Östersjö, and it is the second of Natasha Barrett's pieces for guitar and live electronics that quite literally deconstruct the music of John Dowland. This piece deconstructs the three galliards on *Can She Excuse My Wrongs*, or the *Earl of Essex's Galliard*. I find Barrett's piece fascinating in its contribution to a well-known lineage of contemporary music that uses Dowland's lute songs as its source material (most obviously to this audience, Benjamin Britten's Nocturnal). Each piece subjects Dowland's music to contexts of which the composer could never have conceived. Barrett's piece, additionally, presents a few of the challenges that often accompany electroacoustic music: the score doesn't reflect the sound, and it prompts questions we would not typically ask about the piece's source material, like the question of filtering Dowland's music through electronics.

Authors who discuss modes of listening agree that any mode is available to the interpretation of most aural situations, but that sounds often trigger a default mode. We can always intentionally choose our mode of listening to a sound, but in the absence of a conscious choice, a given context will bring certain modes to the fore. In listening to the Barrett (2009a) piece's opening, my default mode of listening is indexical – mostly. Since I am purposely subjecting my ears to the sounds of this music, I begin my listening with some cursory information: having read the title of the piece, I know I will hear a guitar and I will hear electronics. This sets my ears up to listen for these two entities. If I knew nothing else about the music, this would accurately describe my initial experience. Additionally, there are two other general approaches I may have to my first experience of this music: having less information or more information prior to listening. If I encountered this music unexpectedly over a shopping mall loudspeaker, I would not enter my listening with any expectation of the performing forces, and thus no initial inclination to distinguish them. I will consider this type of listening situation later. My personal first listening experience more accurately falls to the "more information" side, though. I enter the listening experience knowing, in addition to the performing ensemble, where Barrett derives her musical material. As indicated by the title and the score's front matter (Barrett, 2009b), which I read before my first hearing, the piece quite literally deconstructs three galliards of John Dowland. Thus, I devote some part of my listening attention to recognizing these sounds through the interpretive modes of listening.

Recognizing a particular sound in the piece as drawing upon Dowland's music is a different process from the identification of the music's sound sources, and it is possible to do one without the other. Of course, I can use the raw sonic data provided to my ear to identify the generating entity behind a particular sound. This non-interpretive, indexical mode takes a sound's source as an "inexhaustible concrete given" and provides an objective perspective on the sound; it attends to the qualities of sound that will exist regardless of whether a listener is present to perceive them (timbre, volume, frequency, etc.) (Chion, 1983/2009, p. 21). To register a musical passage as drawing upon Dowland, I must engage with a different set of cognitive processes. I first need an understanding of the general essence of *Can She Excuse My Wrongs?* Barrett's piece seldom quotes the galliard directly, so a prior familiarity with Dowland's music is crucial to my ability to hear influence of Dowland's sound world within the work. A knowledge of Dowland's music and of ways a modern composer might employ pre-existing material in their work both play a role in this process, and I could perceive them even if I am unsure of the physical sources creating the sounds. Unlike listening for whether a guitar or a computer produces a particular sound, listening for Dowland's influence is abstract. That is, it still attends to an object of perception – harmonic material, rhythm, melody – but with the abstract aim of interpreting a language or meaning (Chion, 1983/2009, p. 21). This mode of listening is interpretive and interrogatory; I bring Dowland's and Barrett's music into dialogue by evaluating the relationships between essential musical elements *of Can She Excuse My Wrongs?* and *Deconstructing Dowland*.

Beginning to listen

The account of listening to Barrett's piece just given reflects the way I might listen attentively, but without any pre-planned ideas of how I will listen. In this case, the work's title and front matter triggered questions about the music in my mind: 'How does the composer distribute sounds between guitar and electronics?' and 'In what ways does this piece use the galliards of John Dowland?' I found that indexical and interpretive modes would provide me with these answers, and for this listening goal, these modes are what Ola Stockfelt would describe as "adequate modes of listening" (Stockfelt, 2006, p. 88). Tuuri and Eerola acknowledge that certain situations will prompt certain modes, and their taxonomy of modes takes the "multi-functionality of listening" into account (Tuuri & Eerola, 2012, p. 138). The authors do not attempt to discuss what kinds of situations might elicit particular modes, and this is what I attempt to do here. This goal is complicated because, as Schaeffer emphasizes, listeners cannot "escape from their own subjectivity," and writers must acknowledge that they can only speak to their individual hearings (Chion, 1983/2009, p. 22). By investigating my hearing of the music in question, though, I think that general trends will emerge. The account given of my initial listening to the beginning of *Deconstructing Dowland* might indicate the listening modes one will engage with after receiving some general, preliminary knowledge about the music.

A different listening experience can be had when one intentionally plans to tune into a particular mode to hear a passage or entire piece of music. As several authors note, listening involves an "intentional noetic act," and this intentionality affords listeners the opportunity to choose the mode(s) through which they listen (Kane, 2014, p. 27). That there is a choice to be made suggests that the modes of listening I employ to engage with Barrett's piece offer fundamentally different listening experiences. Examining a particular passage through multiple listening intentions can illustrate this. Figure 1 shows mm. 11–18, which include the first extensive exchange between the guitar and the computer.

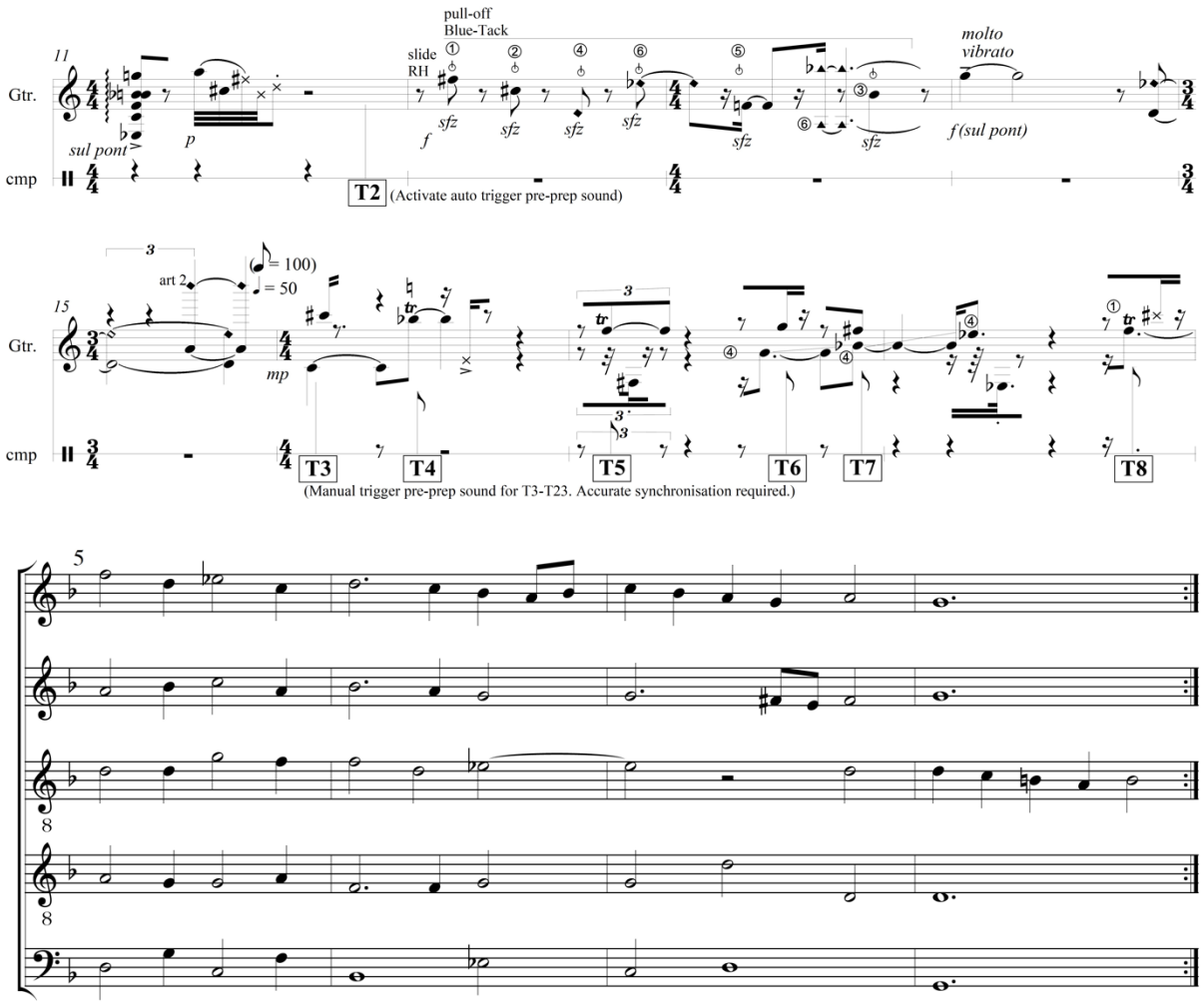

Figure 1 Excerpts from Natasha Barret's *Deconstructing Dowland* (above) and John Dowland's *Can She Excuse My Wrongs?* (below): the latter was appropriated by the former. Reprinted with permission from *Deconstructing Dowland* (p. 1) by N. Barret, 2009, NB noter and *Can She Excuse My Wrongs?* (*The Earl of Essex's Galliard*) (p. 1) by J. Dowland, 1605, Ulrich Alpers.

One moment, three ways

When I adopt an indexical mode of listening, the music is a dialogue between guitar and electronics, in itself a complicated situation. As guitarists, we can identify the pizzicato sounds as a guitar immediately. By process of elimination, the shimmery, astral sounding noises are probably the electronics, and we continue to trace these sounds throughout our listening. After identifying these sources, an indexical mode of listening presents a dialogue between guitar and computer, and tracking the sources reveals how the exchange develops over the passage. In mm. 12–14, the guitar and computer take turns in their articulations of the music's focal material; one resonates underneath the other, but the two parts do not emit new sounds simultaneously. The dialogue evolves as the guitar and computer make more sounds together. The guitar plays a slow-moving, trilled melody, and as the notes trail off, the computer follows with similar sounds. Highlighting indexical listening in our interpretation creates a focus on dissonances that exist between what sounds we think an instrument should make, and the sounds we are actually hearing. Through indexical listening, I hear the once divergent exchange between the guitar and computer

shift to more close echoing. The juxtaposition of familiar and foreign identities in these early measures hints at their ability to become intricately entangled later in the piece.

Consider the example again, this time with an interpretive listening. In this mode, we turn attention to the intangible, intertextual meaning of the music. Observations related to the music's source materials, the Dowland galliards, belong here. While certainly different, both pieces share features that my interpretive listening hears as connected: a strongly articulated descending contour, and other features that align with the Dowland, like movements toward repose or phrase endings. On a larger scale, it is through interpretive listening that we can understand Barrett's music as part of a lineage of guitar music.

An interpretive mode also reveals relationships between conceptual voices, rather than physical sources. For example, I hear two lines emerge from the guitar part in mm. 15–18: a melodic upper line and a bassline. This mode is very familiar to our performances in solo settings; we do not necessarily think about the fact that sound is coming from a single guitar. Instead, our efforts can concentrate on bringing out – or disguising – bits from the Dowland, relationships within the piece, or other connections we want an audience to hear.

Finally, consider the passage through a non-indexical, qualitative perspective. This mode of listening is likely the most difficult, because it asks us to block out all knowledge about sound sources and conceptual information about the piece. A successful attempt, however, will reward us with heightened awareness of the piece's composite soundscape, distinct from its individual parts. I can make detailed observations on qualities that currently have a less robust vocabulary, such as timbre. As I practice reduced listening, I will gradually build a vocabulary of sounds. I can then hear shared aspects between sounds that come from a variety of sources. After listening to the excerpt in Example 1 several times, distinct categories of sound begin to emerge: percussive, pitched sounds; overtone-heavy, sustained sound; sounds that sustain a pitch via some kind of tremolo – any of these sounds can occupy my listening intention in this passage. A lengthier listening in a quality-oriented mode would allow larger sections of sound qualities and emphases to come forth, which then opens the possibility for hearing form and hierarchy that is independent of indexical and interpretive modes of listening.

Further Deconstruction: When Modes Collide

The analytical discussion of Figure 1 has examined a very short passage of music in detail in order to show the particular listening experiences afforded by various modes of listening. Now, I turn to larger sections later in the piece that complicate these modes. Many pieces of electroacoustic music involve a dialogue between familiar, indexable sounds and sounds a listener cannot easily connect with a source. A recording of this kind of dialogue creates a situation in which none of the sound sources can be seen, but one or more can be visually imagined. In a live performance with some acoustic instruments, one can usually see all of the acoustic sources, but the electronics remain hidden. In both recorded and live experiences, the listener's visual perception of the music is incomplete. *Deconstructing Dowland* adds another, more abstract layer of incompleteness in Barrett's anachronistic placement of Dowland's music into a setting of which the original composer could never have conceived. From the beginning of the piece, an interpretive mode of listening will (if drawing also upon indexical information) generally find that the guitar articulates the most Dowland-like passages, while the electronics provides sounds that resist the encroachment of this past music's influence. Thus, the familiar, tangible guitar pairs with the tradition-signifying sounds, while the always invisible, more abstract electronic parts align with the foreign sounds that Dowland's music encounters during the piece. This relationship becomes complicated around m. 101, where the computer takes a live recording of the guitar part from mm. 101–110, Figure 2.

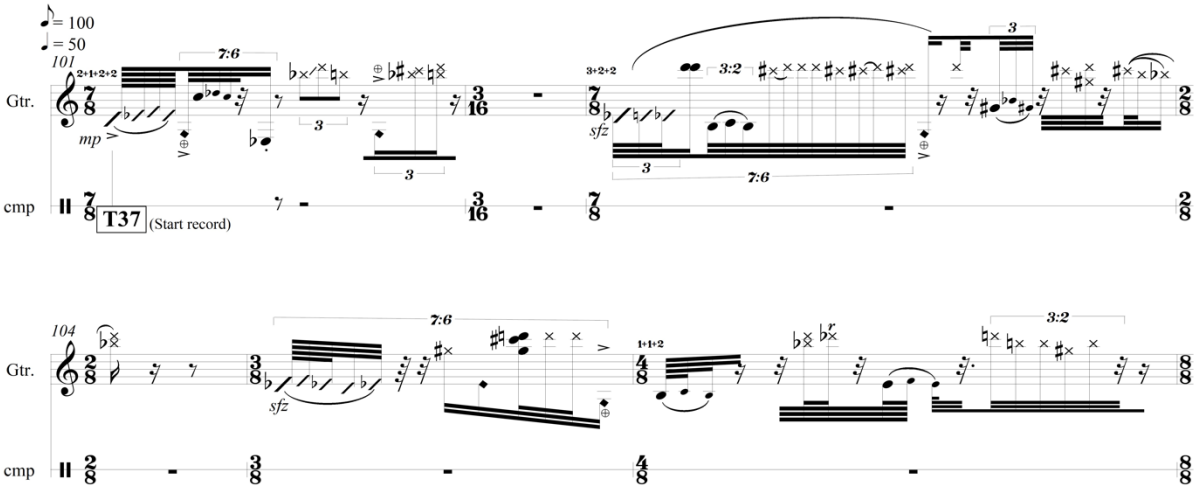

Figure 2 Excerpt of the live guitar part that the computer records for later use in Natasha Barret's *Deconstructing Dowland*. Reprinted with permission from *Deconstructing Dowland* (p. 5) by N. Barret, 2009, NB noter.

When the recorded guitar sounds join the other electronic sounds and the live guitar in m. 115, the relationship between the familiar and unfamiliar shifts dramatically. Hearing this shift is only possible under certain modes of listening, though. My discussion of mm. 11–18 presented each mode of listening as different, but equal; here, I argue that listening with the intention to ignore source and meaning misses the point. When the recorded guitar begins to sound with the live one, I encounter a situation in which I am hearing familiar material – music that is not only conceptually influenced by John Dowland, but music that I literally just heard played – but it is articulated by an electronically processed recording. The computer has previously produced sounds that challenge Dowland's sound world, but it now provides this passage's only familiar sound. The live guitar, on the other hand, makes some of its most unidiomatic sounds heard thus far: tremoloed beating on the instrument's neck, Bartok pizzicato on heavily dampened strings, and unpitched slapping over strings (see Figure 3).

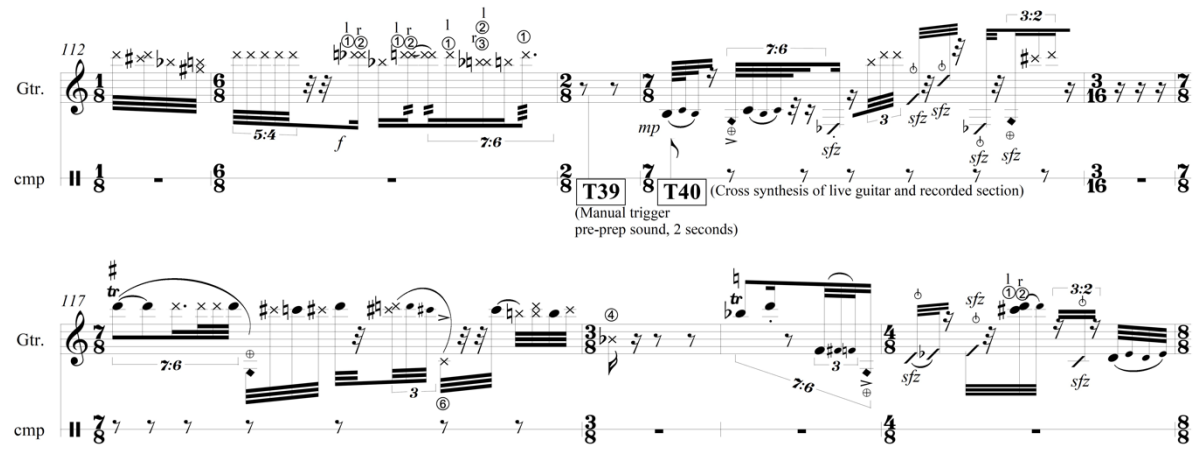

Figure 3 Entrance of recorded guitar (m. 115) in Natasha Barret's *Deconstructing Dowland*. Reprinted with permission from *Deconstructing Dowland* (p. 6) by N. Barret, 2009, NB noter.

I find this violation of previously established sound pairings fascinating. The engagement with two simultaneous modes of listening throughout piece, indexical and interpretive, interrogatory modes, allows me to hear the change in relationship. As I draw upon an indexical mode to match the sounds, I hear with the two main sources I have been tracking throughout the piece, I also determine through an interpretive mode which musical material each source conveys, either Dowland-influenced or something else. The music in m. 115 challenges the work's previous arrangement of a familiar source linked with familiar abstract material and a foreign source paired with foreign abstract material – a significant feature that only modes of listening that attend to source and meaning can discern.

Attending to source and interpreting musical material during the passage in mm. 115–122 also forces me to question my previous hearing of two sound sources present in the music. At this moment, an interpretive, interrogatory mode tells me that there are three distinct kinds of sound: the live guitar, the recorded guitar, and other electronic sounds (the "manual pre-prep sound" indicated in the score among them – see Example 3, m. 114). These three groups are at odds with the two physical instruments, and thus performers, required to produce the sound, and also with the single mass of sound that a quality-oriented mode would prompt one to hear. There are two physical instruments contributing to sound production in the music. In one, the live guitar, I am generally comfortable with the idea that several groups of sounds can originate in a single sounding body. The guitar has a limited palette of timbres and tones it can produce, and its music in mm. 115–122 uses most of them; thus, no sharp divisions occur in the types of sounds presented that would prompt me divide them into further groups. The computer, on the other hand, is virtually limitless in the sounds it can create. The beginning of this piece, though, established a general vocabulary of sounds that the computer would use, and the appearance of recorded guitar sounds clearly lies outside of it. This makes it more difficult to think of the computer as a single source, yet according to *écouter*, it is. Engaging with all three modes at once creates a chaotic, dissonant listening experience that I consider part of the piece's aesthetic. If I listened through only one mode at a time, this passage of music would not prove challenging. Indexical listening would hear two sound-producing entities, the guitar and the computer, and would not care about the interpretive content of the sounds they make. Interpretive listening would only note the three groups of abstract musical content, and would not concern itself with deciding the sounds' physical origins. I have already discussed that *entendre* is not a useful mode for hearing the features I am trying to highlight, but while attending to the dissonant interaction between indexical and interpretive modes, it can be interesting to briefly "zoom out" and listen to the composite whole created by the conflict. A listening mode that is only zoomed out – a non-indexical, qualitative mode, – though, will miss this interaction altogether.

A passage that shortly follows mm. 115–122, mm. 130–142 presents an even more complicated web of sounds that I, in the interest of length, discuss only briefly here. In addition to the live guitar, another statement of the recorded guitar from mm. 101–110, forceful electronic sounds, and a whisper-like sound that has presented itself briefly, but not consistently, takes prominent hold of the texture (Figure 4).

Under an interpretive mode of listening, this creates a fourth category of abstract sound. There has been no increase in the number of physical sound sources, but the addition of the whispering noises contests the existence of a single computer even further. Computers are not guitars, and therefore do not make guitar sounds; computers also do not speak, and do not make whispering sounds. Although I try to identify the sources of these sounds, I am incorrect. This analysis points to part of the reason that this passage makes me uncomfortable – it takes two sounds that I know very well, guitar and voice, but produces them through an unfamiliar means, the computer. As with the preceding discussion of m. 115, this disorienting situation forms an important part of my experience with this piece. It is a moment in which, when I engage an interpretive mode of listening, I discover my indexical hearing was misled. Yet, I discover my error early

enough in the passage to enjoy the aesthetic experience created by my unsettling realization of the sounds' true source.

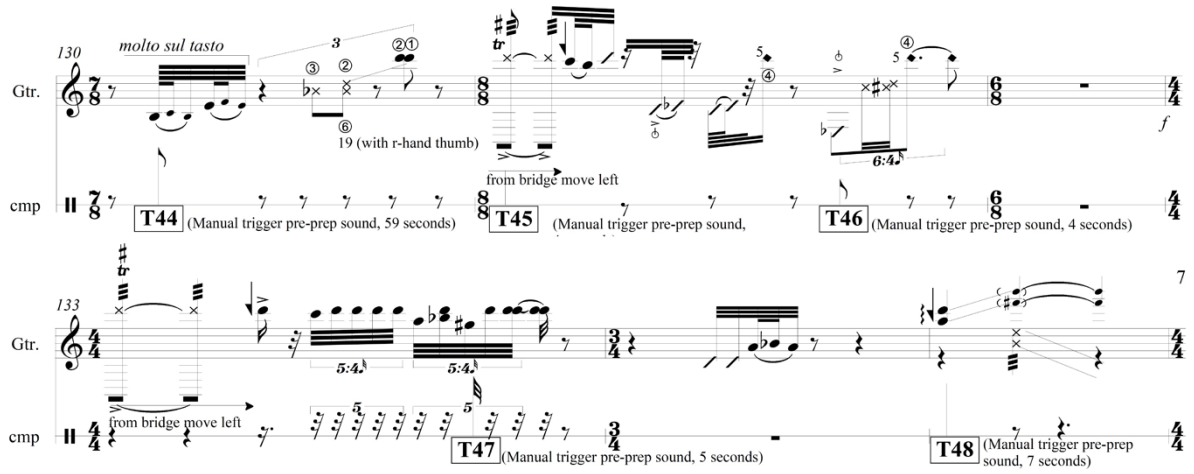

Figure 4 Complications of source and meaning (whispers begin in m. 131) in Natasha Barret's *Deconstructing Dowland*. Reprinted with permission from *Deconstructing Dowland* (pp. 6–7) by N. Barret, 2009, NB noter.

Conclusion

Once I realize the deep musical engagement an interrogation of my listening process can bring, every shift in sound the music takes seems to beg further investigation. The moments I have examined demonstrate two realms of the listening experience that introspection into modes of listening can bring to one's awareness. Sometimes, the process explains things that seem obvious to listeners' hearing without explicit attention to their listening mode. The insights discussed about mm. 12–18, for example, do not necessarily reveal anything particularly novel about the music, and in fact, a listening that only attends to one of the three modes discussed would be fairly uninteresting. When I listen to this passage, the exchange between guitar and computer afforded by indexical listening, the interaction between conflicting sound worlds I examine in an interpretive mode, and the visceral experience of the music's composite sound I gain from reduced listening are all part of my musical experience; others may very well hear through a different combination of modes, too.

Whatever the musical or acoustic features one tends to without thinking about modes of listening, the resultant listening experience is typically taken for granted. But taking inventory of the modes that contribute to a hearing offers a revealing look at the inner workings of both the music and ourselves. The contributions of individual modes to a resultant listening experience are seldom very clear cut, though. No mode exists in isolation, and what seems beyond doubt according to one approach can be utterly incorrect in the context of another. The second and third passages I examined highlight this issue. There is not necessarily a way to reconcile the conflicting information offered by my indexical and interpretive hearings in mm. 115–122, in which previous pairings of sound and source are blurred; both the presence of two physical sound sources and of three conceptual kinds of sounds are correct, and I think that the music's ability to create this "problem" contributes heavily to my appreciation of it. The crossed modes of listening reflect one aspect of electroacoustic works that music for acoustic instruments does not frequently encounter. Modes of listening do not explain everything about the music discussed, but they

offer access to deeper questions and answers by providing a basis to understand why one hears these things in the first place. I have provided a detailed account of my listening experience in three passages of a single piece to demonstrate the analytical insights afforded by using listening to create an interpretation of a piece. Any mode is available to a listener at any time, and consciously choosing a mode creates interpretive insights unavailable in a passive aural reception of the piece and unobvious – even obscured – in traditional score study. By generalizing the work of the nuanced observations of previous authors, I offer a way to implement modes of listening in an active, productive way to engage with electroacoustic music for performers and listeners alike.

References

Barrett, N. (2009a). *Deconstructing Dowland* [Recorded by S. Östersiö]. *On Black bile extempore* [Album]. Stockholm: Elektron Records.

Barrett, N. (2009b). *Deconstructing Dowland* [Musical score].

Barthes, R. (1985). *The responsibility of forms*. Hill and Wang.

Chion, M. (2009). *Guide to sound objects: Pierre Schaeffer and musical research*. (J. Dack and C. North, Trans.). Éditions Buchet/Chastel. (Original work published 1983).

Chion, M. (2016). *Sound: An acoulogical treatise*. (J. Steintrager, Trans.). Duke University Press. (Original work published 1998). https://doi.org/10.1215/9780822374824

Clarke, E. (2005). *Ways of listening: An ecological approach to the perception of musical meaning*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780195151947.001.0001

Jing, A. W. (n.d.). Affective Listening: China's Experimental Music and Sound Art Practice, *Journal of Sonic Studies 2* . https://www.researchcatalogue.net/view/229681/229682

Kane, B. (2012). Jean-Luc Nancy and the Listening Subject. *Contemporary Music Review*, *31*(5–6), 439–447. https://doi.org/10.1080/07494467.2012.759413

Kane, B. (2014). *Sound unseen: Acousmatic sound in theory and practice*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199347841.001.0001

Nancy, J.L. (2007). *Listening*. (C. Mandell, Trans.). Fordham University Press. (Original work published 2002).

Rice, T. (2015). Listening. In D. Novak & M. Sakakeeny (Eds.), *Keywords in sound* (pp. 99–111). Duke University Press.

Schaeffer, P. (2017). *Treatise on musical objects: An essay across disciplines*. (J. Dack & C. North, Trans.). University of California Press. (Original work published 1966).

Stockfelt, O. (2006). Adequate Modes of Listening. In C. Cox & D. Warner (Eds.), *Audio culture* (p. 88). The Continuum International Publishing Group.

Truax, B. (1984). *Acoustic communication*. Ablex Publishing Corporation.

Tuuri, K. & Eerola, T. (2012). Formulating a revised taxonomy for modes of listening. *Journal of new music research*, *41*(2), 137–152. https://doi.org/10.1080/09298215.2011.614951

Lauren Wilson is a Ph.D. candidate in music theory at the Eastman School of Music and a J.D. Candidate at the University of Michigan Law School. She holds an M.M. in music theory from the Jacobs School of Music and a B.M. in guitar performance from Oakland University. Lauren's research interests include music copyright reform, sound installations, and contemporary guitar music.

Email: lwils29@u.rochester.edu