THE SOUND-POETRY OF THE INSTABILITY OF REALITY:

MIMESIS AND THE REALITY EFFECT IN

MUSIC, LITERATURE,

AND VISUAL ART

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This paper uses the concept of mimesis to clarify the debate concerning the representation of reality in music. Specifically, this study defines the audio reality effect and the three main practices of realism as a way of understanding mimetic practices in multiple artistic media, in particular regarding the multimedia works of the "Landscape series." After addressing the historical debates concerning mimesis, this study develops a framework for the understanding of mimesis in sound by addressing the writings of Weiss, Baudrillard, Barthes, Deleuze, and Prendergast and by examining mimetic practices in 19th-century European painting and multimedia performance works. The audio reality effect is proposed as a meaningful translation of Roland Barthes' literary reality effect to the sonic realm. The main trends of realist practice are applied to electroacoustic music and soundscape composition using the works and writings of Emmerson, Truax, Wishart, Risset, Riddell, Smalley, Murray Schafer, Fischman, Young, and Field. Lastly, this study mimesitically analyzes "2 seconds / b minor / wave" by Michael Pisaro and Taku Sugimoto and the works of the "Landscape series" in order to demonstrate the relevance of mimesis for understanding current musical practice.
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# TABLE OF CONTENTS

**LIST OF FIGURES** .......................................................................................................................... v
**LIST OF MUSICAL EXAMPLES** ........................................................................................................ vii

## Chapters

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>INTRODUCTION ................................................................. 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Relevance of Mimesis to the <em>Landscape</em> Series .................. 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction: abstract vs. programmatic music .................. 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mimesis: representation of reality in the arts .................. 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mimesis in the <em>Landscape</em> series .................................... 9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The warping of reality in <em>The Wind-up Bird Chronicle</em> ........ 15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Summary of chapters ..................................................... 18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The Three Main Practices of Realism ................................ 20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The three main practices of the realist mode .................... 20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The reality effect and metonymy ..................................... 20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The rigorous observation of reality .................................. 23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The questioning of the stability of reality ....................... 27</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mimetic practices in literature and visual art .................. 29</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>HISTORICAL MIMESIS AND LITERARY REALISM ....................... 31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A Historical Understanding of Mimesis ............................. 31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plato’s mimesis ............................................................ 31</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aristotle’s mimesis ...................................................... 35</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Weiss’ categories of audio mimesis .................................. 40</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Literary Realism, the Reality Effect, and Simulacra ............ 45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Realism in literature .................................................... 45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The reality effect in literature ....................................... 48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The audio reality effect ................................................ 50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Baudrillard, hyperreality, and simulacra .......................... 53</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Applications to music ................................................... 55</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>REALISM IN THE VISUAL ARTS, HYPERREALISM .................... 59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Realism in Visual Art, Hyperrealism ................................. 59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Realist connections between literature and visual art ........ 59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mimetic techniques in <em>Backroads</em> .................................... 66</td>
<td></td>
</tr>
<tr>
<td></td>
<td>19th-century realist painting and the reality effect ............. 70</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Realism in Film and Multimedia ....................................... 74</td>
<td></td>
</tr>
</tbody>
</table>
Simulacra in film.................................................................75
Illusion, multimedia, and the reality effect..........................77

4. MIMESIS IN ELECTROACOUSTIC COMPOSITION......................82
   The Conceptual Basis of Soundscape Composition..............82
   Acoustic ecology and the origins of soundscape..............82
   Soundscape practices and audio mimesis.......................87
   Mimesis in Electroacoustic Music.................................91
   Lattice structure vs. sonic continuum.........................91
   Mimetic categories in Electroacoustic music..................97
   Source recognition and the audio reality effect..............101
   Indicative fields and the questioning
   of the stability of reality..........................................104
   Transcontextuality..................................................108
   Risset and Simulacra...............................................114
   Analysis of 2 Seconds/B Minor/Wave............................116
   2 Seconds and spatial ambiguity..................................117
   Wave: the construction and perception of space.............120

5. MIMETIC STRATEGIES IN THE LANDSCAPE SERIES..................124
   Techniques, Aesthetics and Multimedia Counterpoint........124
   Modularity in Landscape Series: 1..............................124
   Video techniques in Landscape: Graz............................129
   Microtonality in Landscape: Clarinet Trio......................134
   Conclusion....................................................................137
   Biographical works..................................................138
   Future works.........................................................142
   Future research.......................................................144

GLOSSARY OF TERMS.............................................................146
LIST OF REFERENCES............................................................148
### LIST OF FIGURES

<table>
<thead>
<tr>
<th>Example</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example 1.1</td>
<td>Mimesis and realism in music concept graph</td>
<td>8</td>
</tr>
<tr>
<td>Example 1.3</td>
<td>Screenshot from <em>Backroads</em></td>
<td>14</td>
</tr>
<tr>
<td>Example 1.4</td>
<td>Representation of reality in the <em>Wind-Up Bird Chronicle</em></td>
<td>17</td>
</tr>
<tr>
<td>Example 1.5</td>
<td><em>The Meeting</em> by Gustave Courbet</td>
<td>24</td>
</tr>
<tr>
<td>Example 2.1</td>
<td>Mimesis in Plato vs. Aristotle</td>
<td>38</td>
</tr>
<tr>
<td>Example 2.2</td>
<td>The Reality Effect in literature</td>
<td>50</td>
</tr>
<tr>
<td>Example 2.3</td>
<td>The audio reality effect</td>
<td>51</td>
</tr>
<tr>
<td>Example 3.1</td>
<td>Perspective Diagram</td>
<td>61</td>
</tr>
<tr>
<td>Example 3.2</td>
<td><em>Relativity</em> by M.S. Escher</td>
<td>63</td>
</tr>
<tr>
<td>Example 3.3</td>
<td><em>Violin and Candlestick</em> by Georges Braque</td>
<td>65</td>
</tr>
<tr>
<td>Example 3.4</td>
<td>Video stills from <em>Backroads</em></td>
<td>67</td>
</tr>
<tr>
<td>Example 3.5</td>
<td>Layering in <em>Backroads</em> and <em>Relativity</em></td>
<td>69</td>
</tr>
<tr>
<td>Example 3.6</td>
<td><em>The Third of May, 1808</em> by Goya and <em>The Execution of Emperor Maximillian</em>, by Manet</td>
<td>71</td>
</tr>
<tr>
<td>Example 3.7</td>
<td><em>Landscape Series: 1</em>; video stills from the three videos, p. 18 from the score, and a partial view of the video projection in the performance space</td>
<td>79</td>
</tr>
<tr>
<td>Example 4.1</td>
<td>Wishart’s Lattice Structure</td>
<td>92</td>
</tr>
<tr>
<td>Example 4.2</td>
<td>Fischman’s graph of Emmerson's Language Grid</td>
<td>98</td>
</tr>
</tbody>
</table>
Example 4.3: The real-unreal continuum .......................................................... 99
Example 4.4 Fischman's analysis graph .............................................................. 100
Example 4.5: Surrogacy, source recognition, the audio reality effect and the real-unreal continuum of mimetic quality ......................................................... 103
Example 4.6: Space-field and environment-field dissonance in Backroads ................................................................. 107
Example 4.7: Transcontextual agency ................................................................. 111
Example 4.8: Constructed and mimetic materials in 2 Seconds ............................. 118
Example 4.9: Transformation in 2 Seconds .......................................................... 119
Example 4.10: A spectrogram view of Wave ....................................................... 121
Example 4.11: The changing mimetic implications of wave sounds in Wave .................. 123
Example 5.2: Mimetic results in Landscape: Trombone Quartet (and Landscape: Clarinet Trio) ................................................................. 127
Example 5.4: A GoPro camera and the tram in Graz .......................................... 131
Example 5.5: Layering and filtering in Landscape: Graz, video f and video a ................................................................. 132
Example 5.6: Mimetic results in Landscape: Graz .............................................. 134
Example 5.8: Mimesis in illustrating a seizure .................................................... 141
### LIST OF MUSICAL EXAMPLES

<table>
<thead>
<tr>
<th>Example</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2:</td>
<td>nocturne series: 1, score p. 2</td>
<td>11</td>
</tr>
<tr>
<td>2.4:</td>
<td>Landscape Series: 1, p. 9</td>
<td>56</td>
</tr>
<tr>
<td>5.1:</td>
<td>Landscape: Trombone Quartet, p. 2</td>
<td>126</td>
</tr>
<tr>
<td>5.3:</td>
<td>Landscape Series: 1, score excerpt</td>
<td>128</td>
</tr>
<tr>
<td>5.7:</td>
<td>Landscape: Clarinet Trio, score p. 1</td>
<td>135</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

1.1 Relevance of Mimesis to the Landscape Series

This chapter introduces the concept of mimesis as a way of clarifying the debate concerning representation in music. After giving some examples of the representation of reality in the Landscape series and Haruki Murakami's The Wind-up Bird Chronicle, the three main practices of realism are introduced as a way of understanding mimetic practices in multiple artistic media.

1.1.1 Introduction: abstract vs. programmatic music

The question of whether music\(^1\) is primarily representational or expressive has been the subject of scholarly debate since at least the 19\(^{th}\) century.\(^2\) Essentially, this debate has focused on whether music, in itself, represents anything. That is, does music inherently describe a subject outside of itself, or does it exist only as sounds in time separate from any outside reference? Composer Franz Liszt first introduced the term "programme music" as a means of discussing the narrative and

\(^1\) For the purposes of this study, we will use Edgard Varèse's "organized sound" as a working definition of music. This definition of music encapsulates all of the sonic arts such as concert music, electronic music, computer music, sound installations, multimedia installations, sound art, multimedia art using sound, et al. See Edgard Varèse and Chou Wen-chung, "The Liberation of Sound," Perspectives of New Music 5 (1966): 18.

referential character of his symphonic poems. This category of theoretical description is typically contrasted with “abstract” or “absolute” music, which refers to “instrumental music that simply exists as such... or [music that is not] in any way illustrative.”

There is by no means any solid consensus on the terms “absolute” or “programmatic” music. However, music is often analytically approached using the dichotomy of absolute vs. programmatic in order to understand a piece, supposedly on its own terms. This conceptual trend is partly a result of the modernistic reaction of composers such as Hindemith, Stravinsky, and Webern against the programmatic tendencies of romanticism in favor of the creation of abstract “patterns” and “forms” in their work.

Despite the historical prominence of the debate concerning music as either representational or expressive, or whether a given piece is absolute or programmatic, the dichotomy of absolute vs. programmatic does not articulate the issue of representation in music with the degree of flexibility and clarity required to address the great variety of techniques and methodologies apparent in the musical

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3 Scruton, "Programme music," section 1.
6 Scruton, "Absolute music."
literature. The dichotomy of abstract vs. programmatic, while relevant to the
development of musical aesthetics, is not ultimately helpful in understanding the
issues of representation in art as they concern the medium of music.

For example, it is problematic to denote Debussy’s *La Mer*,7 Messiaen’s
*Oiseaux Exotiques*,8 and Luc Ferrari’s *Presque Rien no. 1*9 as all being programmatic
since they refer outside of themselves in completely different ways. Debussy’s *La Mer* is an orchestral composition that evokes the changing moods and gestures of
the sea according to Debussy’s memories and experiences.10 According to Debussy’s
artistic intentions, *La Mer* should not refer literally to nature but instead contains
“invisible, mysterious [and] intangible” connections to reality.11 *Oiseaux Exotiques* is
a work for piano and orchestra that makes extensive use of specific birdsongs as
musical material, especially for the construction of the melodic material in the solo
piano part.12 The piece refers to the sounds of specific birds whose songs Messiaen
had transcribed and recomposed to be performed by musicians on traditional
musical instruments. The arrangement of the birdsongs for human performance
significantly alters the sonic content of the source material from nature. *Presque

12 See [http://www.oliviermessiaen.org/birdsongs.html](http://www.oliviermessiaen.org/birdsongs.html) for specific examples.
Rien no. 1 is a stereo tape composition that consists of field recordings of everyday sounds from a day in a seaside village, edited down to 21 minutes. Presque Rien no. 1 contains the sounds of the everyday mediated through the relative transparency of tape recording technology—the sounds of a seaside village are presented as intact as possible.

Debussy sought to evoke nature rather than represent it, Messiaen sought to utilize specific sources from nature as pitch material for an instrumental composition, and Ferrari used environmental sounds themselves as musical material. The representational means and ends of these compositions are so diverse that they strain the ability of the term “programmatic” to effectively articulate their relationship to the everyday world. It is no longer useful to call both an orchestral composition that abstractly refers to nature and a subtly edited field recording “programmatic.”

Because of the inadequacy of the programmatic vs. abstract dichotomy regarding representation in music, it is necessary to examine the concept of mimesis—or the way the real world is represented in art—in the history of the arts and then apply this knowledge to musical practice. Until the advent of high definition recording, music was primarily concerned with non-representational constructions using conventions of pitches and rhythms.13 From antiquity until 1952, the date of John Cage’s landmark composition 4’33”, the so-called “lattice

structure” of pitches and rhythms dominated musical thought rather than using the entire continuum of real-world sounds. As the culmination of an avant-garde musical lineage linking back to Luigi Russolo’s *Art of Noises* (that recontextualized the sounds of war as music), John Cage’s work challenged the field of music to integrate everyday sounds as viable musical material, causing shockwaves in the scholarship of music that still reverberate today. Now that environmental sound and field recording are generally considered to be legitimate musical material, composers must further examine the concept of everyday “reality” that is evoked by using field recordings or other sounds of the everyday in artistic works.

According to Risset, Smalley, Field, Fischman, and Truax, the use of environmental sounds in musical practice has broad implications for our experience of reality and the specifics of computer music compositional techniques. Music composition as a field is thus obligated to further integrate the findings of literary and visual criticism, the analysis of media that have stronger historical ties to the representation of the everyday, into its perspective on reality and representation.

While scholar-composers such as Denis Smalley acknowledge the relevance of transcontextuality—when a listener associates a given sound with both its original and performative context—the field of electroacoustic music has not integrated the findings of mimesis from the history of other art forms into musical theory and practice. This study seeks to fill this gap in the literature by synthesizing the history of mimesis with recent research concerning the reality effect and simulacra in literature and visual art in order to further refine the theoretical understanding of representation in music and provide relevant examples of mimetic artistic and technical practice in music composition and multimedia art.

1.1.2 Mimesis: representation of reality in the arts

Etymologically, mimesis is derived from the Greek root *mimos*, meaning a person who imitates—like the English word “mime”—and “a genre of performance based on the imitation of stereotypical character traits.” The idea of mimesis has been the conceptual frame for debates concerning the representation of reality in literature and audio, for a more in-depth explanation. Roland Barthes, “The Reality Effect,” *French Literary Theory Today* (Cambridge: Cambridge University Press, 1982).


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art throughout history, including in the writings of the philosophers Plato, Aristotle, Augustine, Aquinas, and others.²² Broadly understood, mimesis refers to the relationship of art to reality. The central debate about mimesis has been whether mimesis merely mirrors reality or whether imitations of reality can exist according to their own logic and exist independently from the original. Broadly speaking, artistic techniques can be said to operate in the realist mode—that which represents or resembles a subject outside itself²³—or in the abstract mode—that which rejects representation and has no starting or ending point in nature.²⁴

Throughout the history of the arts there have been particular aesthetic and geographical movements that emphasize the mimetic potential of various art forms such as the “Realist” movement in European visual art in the mid- to late 19th-century²⁵ and “realism” in French literature in the mid-19th-century.²⁶ As we will discuss in chapters 2 and 3, many of these realist works operate using the “reality effect.” After the analysis of the realist mode in visual art and literature, particularly concerning the reality effect, the rigorous observation of reality, and the questioning

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²² This subject is addressed at length in chapter 2, “Historical Mimesis and Literary Realism”.
²⁶ Pam Morris, Realism (London: Routledge, 2003), 52.
of the stability of reality, it is possible to come to a greater understanding of the nature and potential for realist modes of representation—the means and ends of mimesis—in musical practice.

Example 1.1: Mimesis and realism in music concept graph
Mimesis concerns the relationship between artistic images and reality—art is a copy of the real. There are different modes of representation in the arts, especially the realist mode and the abstract mode, that address reality in different ways. Of the possible modes of representation of reality, the realist mode of representation has been particularly prevalent in the history of visual art and literature.\(^{27}\) In the history of music, the abstract mode has been the dominant representational mode.\(^{28}\) However, given the advances of recording technology, it is now easier than ever to operate in the realistic mode of representation in the sonic arts.\(^{29}\) The technology, aesthetics, and compositional techniques for the use of mimesis already exist and there are implications from the history of mimesis in other artistic media for current mimetic musical practice.

1.1.3 Mimesis in the *Landscape* series

In my artistic work, I have been researching different mimetic techniques through the juxtaposition of field recordings, environmental sound,\(^{30}\) instrumental performance, and experimental video. This exploration has largely taken place in two series of works, the *Landscape* series (2014-) and the *nocturne* series (2012-)

\(^{27}\) See Chapters 2 and 3 for more detail.
\(^{28}\) See Chapter 4 for more detail.
\(^{29}\) See 4.2.1, “Lattice structure vs. sonic continuum.”
\(^{30}\) “Field recordings” means recordings of environmental sounds and “environmental sound” means the ambient sound of a performance context.
The *nocturne* series\(^{31}\) is a group of pieces that investigates the possibilities of combining chamber music, environmental sound and field recordings of the Blanco riverbed in the Texas hill country. The series is an exploration of “in-between-ness” by utilizing sounds that cross over between instrumental production and the sounds of the environment. Additionally, I chose to blend field recordings with the environmental sound of the performance space in order to create a hybrid sense of space, as in *nocturne series: 1*\(^{32}\) for electric guitar duet and field recording.

\(^{31}\) To see scores, recordings, and videos of pieces in the *nocturne* series, go to [http://www.chazunderriner.com/composition/]. Accessed November 16, 2015.

\(^{32}\) To see a score and listen to recordings, see [http://www.chazunderriner.com/composition/chamber/nocturne-series-1/]. Accessed November 16, 2015.
Example 1.2: *nocturne series: 1*, score p. 2

In this section of *nocturne series: 1*, the guitar 1 transitions from amp self-noise to ebowing a pitch with very slight pressure, so that the tone is a mixture of mostly noise from the guitar pickup interacting with the bow combined with a little bit of pitch from the fretted note. Guitar 2 plays mostly noisy pitched sounds using the same technique as guitar 1. At the same time, a field recording of the Blanco riverbed—which is quite noisy in its content of water and wind sounds—very gradually fades into the performance space using a stereo audio system at a barely
audible level. The amount of noise in each sound source and the quietness of all the elements creates a sonic connection, a sort of fusing between the instrumental sounds and the real-world sounds. The quietness of all the elements also makes the environmental sounds of the performance space more audible and noticeable. The similarities in frequency content of the noise in the instrumental parts and the recording part have the result of connecting “abstract” musical material written for the guitars with “phonographic” or mimetic field recordings.\textsuperscript{33} In this way, \textit{nocturne series: 1} explores the mimetic possibility of sonic overlap between normally disparate sound sources in order to alter the listener's perception of the performance space and everyday sounds.

The \textit{Landscape} series concerns the translation of the notion of landscape from that of a two-dimensional static image (as in 19-century landscape painting) into a multiplicity of environmental experiences created by combining field recordings, acoustic instrumental composition, and video in a live multi-media performance context. Each of the pieces in the series evokes this hybridity of environmental experience in different ways. \textit{Landscape: Graz},\textsuperscript{34} the only piece in the series that concerns places outside of Texas, is an abstracted representation of Graz.

\textsuperscript{33}Phonography is defined as “sonic photography,” see 4.1.2, “Soundscape practices and audio mimesis,” for more information. For more detail on the abstract vs. mimetic Language Grid proposed by Emmerson, see 4.2.2 “Mimetic categories in Electroacoustic Music.”

Austria and koto player Miyama Tokita-McQueen. *Landscape: Texas Plains*,\(^{35}\)

*Landscape: Clarinet Trio*,\(^{36}\) and *Landscape: Trombone Quartet*\(^{37}\) seek to translate the hypnotic experience of driving flat Texas highways into acoustic chamber music through the use of subtle variation of microtonal drones. *Backroads* “explores the sensations of highway hypnosis: delirium, displacement, and movement intermingled with repetition by combining long duration, abstracted video shots of driving the back roads of rural Texas combined with audio field recordings, and very slowly evolving organ drones.”\(^{38}\)


Backroads draws on the quintessentially Texan experience of driving desolate highways and becoming hypnotized by the slowly changing landscape as its basic perceptual foundation. This experiential reference is manipulated through the juxtaposition of stationary field recordings of one time/space with the processed driving footage. By combining the visual aspect of one experience and the sonic aspect of an incongruous experience, Backroads seeks to evoke a surreal sense of reality in the viewer similar to daydreaming while driving. In terms of mimesis, Backroads seeks to transform an everyday experience through the simultaneous juxtaposition of multiple mimetic techniques and spaces. It is insufficient to call the works in the Landscape series “programmatic” since they utilize the evocation of a
specific experience to alter the perception of the viewer. These works operate using
the “reality effect” in the audio and video realm.39

1.1.4 The warping of reality in The Wind-up Bird Chronicle

The novels and short stories of Japanese writer Haruki Murakami are
excellent case studies in mimesis because Murakami is able to create a subtly
warping, unstable sense of reality by using the realist mode of literary description
for circumstances and events that gradually become more uncanny and divorced
from everyday reality. This is a current example of the mimetic devices used in
science fiction and magical realism—authors use the same realist mimetic
techniques as any other genre of novel, yet with subject matter that can deviate
wildly from our own sense of reality.40 The artistic techniques of mimesis in
literature make it possible to use a realist manner of presentation to “render the
unreal familiar or the real strangely unfamiliar.”41

For example, in the Wind-Up Bird Chronicle,42 chapter 1 begins with multiple
concrete references to everyday experiences: the phone rings while the protagonist
is cooking spaghetti and whistling along to a recording of Rossini’s The Thieving

39 We will examine Roland Barthes’ “reality effect” in detail in chapter 2, particularly
in sections 2.2.1, “Realism in literature,” 2.2.2, “The reality effect in literature,” and
2.2.3, “The audio reality effect.”
40 See Matthew C. Strecher, “Magical Realism and the Search for Identity in the
41 Potolsky, Mimesis, 96.
42 Haruki Murakami, The Wind-Up Bird Chronicle, Translated by Jay Rubin and
Magpie overture (conducted by Claudio Abbado). Even if the reader detests orchestral music and spaghetti, most people have experienced receiving a phone call while cooking dinner. These concrete details in Murakami’s prose lend the weight of everyday reality to the setting of the scene—as we will see in chapter 2, this is the most basic manifestation of the reality effect. The slightly odd conversation that the protagonist Toru Okada has with an anonymous woman seems to be an unexpected solicitation for a phone sex hotline, but otherwise Okada is relatively unshaken from his daily routine of cooking, grocery shopping, and other chores. Toru Okada’s world may seem quite similar to the everyday world of the reader in that Toru’s reality seems to be fairly quotidian, if not a little quirky.

However, unbeknownst to the reader at the beginning of the novel, the seemingly mundane facts that Okada receives unexpected calls for phone sex and that his cat has run away have actually triggered a series of events that have profound consequences for Okada’s life: his wife Kumiko leaves him and Toru begins to have strange out-of-body experiences when he spends time in the bottom of a well in an abandoned house in his neighborhood. Toru then acquires special perceptual powers and a blue mark on his face when experiencing a vision at the bottom of the well. Toru begins to serve as a sort of spiritual guru to rich middle-aged women. Finally, Toru ends up assaulting his powerful brother-in-law with a baseball bat and hospitalizing him by attacking him in a sort of nightmare-hotel-dreamscape vision.
Even without our considering any finer points of plot or any of the other characters in the novel, it is evident that Murakami dramatically shifts the sense of a stable, even boring reality to one in which supernatural and unexplainable events are happenstance, all while maintaining a realist mode of writing.

Example 1.4: Representation of reality in the *Wind-Up Bird Chronicle*

Murakami achieves this sense of a stable reality that warps into the surreal through the very gradual, even imperceptible inclusion of events and characters into the plot that are more and more unexplainable. Through the consistent transformation of the world and the tactile experiences of the protagonist, Murakami uses the mimetic device of realistic description and concrete details in order to gradually break open a seemingly stable world into a chaos of supernatural causes and effects. It is not simply that Murakami uses more and more disturbing tactile images, such as when Toru breaks open Noboru Wataya’s skull with a
baseball bat during a fight in total darkness. Murakami’s work demonstrates the power of mimetic techniques to convincingly shape the reader’s experience of everyday reality and to consider the everyday in light of the ineffable. While mimesis has been analyzed a great deal in regard to literature, and particularly in regard to modernist and experimental forms of writing, the relevance of mimesis to contemporary musical thought and practice deserves more thorough attention.

1.1.5 Summary of chapters

My intuition when creating the works in the *nocturne* and *Landscape* series was that the inclusion of field recordings in chamber music had the capacity to change the essence of a piece by some unknown means. Through a historical study of mimesis in literature and visual art, and the application of the debates and concepts from these disciplines to music, it is apparent that mimesis can indeed shed light on issues of representation of reality in music, even the use of field recordings in contemporary music. Moreover, by coming to an understanding of mimetic techniques in different artistic media, it is possible to articulate the commonalities of realist tendencies in the arts as a whole.

The rest of Chapter 1 introduces the three main practices of realism as a way of understanding mimetic practices in multiple artistic media, including music. Chapter 2 addresses the historical debate concerning mimesis originating from Plato and Aristotle and, using their ideas as a starting point, develops a framework for the understanding of mimesis in audio using Weiss’ analytical categories and by
addressing the ideas of Baudrillard, Barthes, Deleuze, and Prendergast. Chapter 2 also introduces the reality effect and its relevance to audio mimesis in the audio reality effect.

Chapter 3 focuses on mimetic artistic practices in visual art, particularly in 19-century European painting and multimedia performance works. Chapter 4 applies the main trends of realist practice to electroacoustic music and soundscape composition using the works and writings of Emmerson, Truax, Wishart, Risset, Riddell, Smalley, Murray Schafer, Fischman, Young, and Field. Chapter 4 concludes with a case-study analysis of 2 Seconds/B Minor/Wave by Michael Pisaro and Taku Sugimoto. Chapter 5 concludes the study of mimesis by connecting the analytic framework of the audio reality effect and the three main practices of realism to pieces in the Landscape series.

\[43\] Michael Pisaro and Taku Sugimoto, 2 seconds / b minor / wave, Erstwhile Records, ERSTWHILE 061, 2010, compact disc.
1.2 The Practices of Realism

1.2.1 The three main practices of the realist mode

Realist mimetic practices in the arts, while inevitably being somewhat unique to the individual artistic medium, also have some consistencies across medium, aesthetic, and historical context. While the three main practices of realism have been discussed regarding separate media—the reality effect in terms of literature by Barthes, the rigorous observation of reality in painting by Nochlin, and the questioning of the stability of reality in literature by Morris—these practices have not yet been identified as trends that persist in the realist techniques of many, if not all artistic media. In particular, these main practices are relevant to the music of the past century as a way to address its mimetic qualities.

1.2.2 The reality effect and metonymy

The “reality effect” is the use of concrete (and seemingly meaningless) details to lend literary description the weight of the experience of reality. The reality effect works through metonymy. That is, a seemingly meaningless detail will not denote reality itself, but will signify reality by evoking the category of the real. According to Barthes, a fragmentary detail in the midst of a realistic description of a scene will transcend the signifier and referent and instead refer directly to the

44 See 2.2.2, “The reality effect in literature,” for a more in-depth explanation.
category of the real, thus creating an overall effect of reality as we experience it.\textsuperscript{45}

The reality effect exists in the audio domain when a listener recognizes the original context of a recorded sound and links this source to their personal tactile experiences.\textsuperscript{46}

The reality effect is so significant as a mimetic device because it accesses the everyday experiences of the viewer/reader/listener; the audience links the words or sounds of a piece to their own memories and tactile experiences, thereby enriching the perceptual effects of a given realist piece. It is more compelling to hear the sound of a river flowing if a listener not only perceives the river as a combination of abstracted water sounds, but also connects this sound to their experiences and memories concerning rivers. This connection to a listener’s subjective experience is one of the most powerful tools of acousmatic music, soundscape composition and site-specific musical performances.

For example, in Barry Truax’s \textit{Pendlerdrøm},\textsuperscript{47} the composer blends field recordings of commuting from the Central Train Station in Copenhagen, Denmark with processed and synthesized material in order to create a “daydream in which the sounds that were only half heard in the station return to reveal their musical qualities.”\textsuperscript{48} Using real-time granular synthesis and waveguide resonators,\textsuperscript{49} Truax

\textsuperscript{46} This concept is explored at length in section 2.2.3, “The audio reality effect.”
\textsuperscript{48} From the composer’s website: “Pendlerdrøm,” Accessed Nov. 13th, 2015, \url{http://www.sfu.ca/~truax/pendler.html}.
processes and filters the field recordings in order to create a sound world that is a hybrid of the raw field recording with more pitched and synthetic materials. As an example of the audio reality effect, the source material of a train station is quite easily identified by most listeners, so it is possible for the listener to connect this field recording with their own experiences of trains and train stations.

Of course, if a listener has never been on a train or to a train station, then these sounds will not evoke any past memory, but will rather seem quite alien. In contrast, if the listener is someone who regularly commutes using the Central Train Station in Copenhagen, then the sounds of the field recording will be strikingly recognizable. In this way, the reality effect is dependent on the subjective experiences of the audience in order to have effective source recognition and the evocation of the real.

In *Pendlerdrøm*, Truax alternates “layered versions of the original field recording with processed versions that represent the ‘daydream’ sequences.”50 This alternation has the capacity to link the reality effect (from the field recording) with more traditionally pitch-based sonic content—thereby triggering multiple kinds of listening in the audience.

Composer and soundscape theorist R. Murray Schafer has composed multiple site-specific acoustic pieces that utilize the reality effect simply through the juxtaposition of the sounds of musical instruments with natural settings. *Music for
*Wilderness Lake*[^51] is a piece for 12 trombones positioned in three groups around a small lake to be performed at dusk and dawn. This composition uses the reality effect in that the audience, listening from the banks of the small lake, will associate the musical performance with their memories and experiences of the lake. It is unlikely that a listener of *Music for Wilderness Lake* will have heard musicians performing around the perimeter of a lake before, so the sonic experience is juxtaposed on the listener’s everyday experience of the lake. This use of the reality effect works in the opposite way as Truax’s *Pendlerdrøm*, in that the composer does not evoke the listener’s everyday experiences by a recording in the midst of a musical piece, but rather brings the musical content to the listener’s everyday experience.

1.2.3 The rigorous observation of reality

Linda Nochlin, in her book on realism in painting, argues that “the role played by actual objective observation of the external world in the creation of Realism cannot be ignored.”[^52] The rigorous observation of the everyday is immediately evident in the works of “Realist” painters such as *The Meeting, or Bonjour Monsieur Courbet*[^53] by Gustave Courbet.

[^53]: Gustave Courbet, *The Meeting, or Bonjour Monsieur Courbet*, 1854, oil on canvas, 129 cm. x 149 cm. Réunion des Musées Nationaux (RMN).
Example 1.5: *The Meeting* by Gustave Courbet

Nochlin tells us that Courbet “observed the countryside around Montpellier with scrupulous attention to its peculiarities and he recorded the local flora... with striking and convincing accuracy.”\(^{54}\) Courbet’s rigorous observation is evident in the level of detail in the plant-life in the painting, which are given significant attention even though they are not the primary subjects of the work. This rigor in the observation of the everyday is not normally a characteristic associated with music composition, and yet it is possible to trace this realist practice to the works of Olivier Messiaen, Pierre Schaeffer, John Cage, and Jean-Claude Risset.

\(^{54}\) Nochlin, *Realism*, 17.
For example, in the already addressed *Oiseaux Exotiques*, Messiaen took great care in transcribing specific birdsongs to be used as basic material for the piece, adapting the tuning of the songs to equal temperament and the time-scale appropriate to human instrumental performance.\(^{55}\) The intense scrutiny paid to the details of the birdsong gives Messiaen’s composition a special mimetic flavor—one can both hear the original source material and Messiaen’s reinterpretation of it.

Pierre Schaeffer’s significant analytical text, *Traité des objets musicaux*\(^ {56}\) or *Treatise on Musical Objects*, codifies listening into four modes: Ecouter, Ouïr, Comprendre, and Entendre. Denis Smalley explains these modes as information-gathering, passive reception, appreciating the attributes of sounds, and responding to the attributes of sounds as a musical code.\(^ {57}\) At its core, Schaeffer’s four modes of listening are organized based on the level of attention and observation paid to sounds with the goal being the construction of a concrete musical language—hearing the actual attributes of sounds rather than only their context. Schaeffer and Smalley’s contributions to our understanding of listening affirm the realist practice of the rigorous observation of reality in the context of electroacoustic music.


John Cage exhibited a general attitude of disciplined attentiveness as a basic ethic in his writings and compositions. The following quote from *Silence*, while often read as an attempt to understand Cage’s musical aesthetics, effectively articulates the rigorous observation of reality in Cage’s work: “In Zen they say: If something is boring after two minutes, try it for four. If still boring, try it for eight, sixteen, thirty-two, and so on. Eventually one discovers that it’s not boring at all but very interesting."58 The model of persistent attention, drawn from Zen Buddhism, is the perceptual foundation for experiencing Cage’s works. This ethic of attentiveness applies not only to Cage’s acoustic instrumental compositions, but also to his writings, tape compositions, music circuses, et al.

Speaking about his computer music compositions, Jean-Claude Risset elaborates on the process of making field recordings, processing them, and creating related synthetic sounds in order to “suggest an illusory world that can appear true to perception.”59 Risset gives extreme care to both the creation of his field recordings and the technical processes that utilize them in his compositions—spatialization, reverberation, mixing, phasing, time reversal, cross-synthesis, etc.60 Risset’s compositions exhibit the rigorous observation of the everyday by applying the same level of meticulousness to composing with recorded sounds as with synthetic materials.

1.2.4 The questioning of the stability of reality

Pam Morris articulates the modernist critique of 19th-century literary realism in that its “confidence that objective truth about reality entailed only accurate reportage of sufficient material details.”61 In contrast, modernist writers “wrote out of a troubled sense that ‘reality’, whether material or psychological, was elusive, complex, multiple and unstable, but they still believed that the aim of their art was to convey knowledge, by some new aesthetic means, of that intangibility.”62 The trend of perceiving and representing reality as “elusive, complex, multiple and unstable” evidences itself not only in literature, but also in the musical works of Morton Feldman, Steve Reich, and Brian Ferneyhough.

Morton Feldman’s late works have been characterized as “non-teleological” constructions that “epitomize vertical time”—a sense of eternal present or endless time that doesn’t have a specific end goal.63 This sense of musical time as completely divorced from absolute time64 undercuts the listener’s sense of the stability of everyday time. How is it possible to make a piece of music function completely separately from one’s normal sense of time? Through the repetition of musical fragments over extremely long durations, Feldman creates an elusive and multiplicitous sense of time for the listener, a sense of time that stretches the

61 Morris, Realism, 16.
62 Ibid., 17.
64 Defined as “objective time, the time that is shared by most people in a given society and by physical processes.” Kramer, The Time of Music, 452.
capacities of human perception. The result of Feldman’s composition procedures challenges the norms and stability of a listener’s perception of time.

“Process music” such as Steve Reich’s tape piece *Come Out*\(^{65}\) can also be said to operate under vertical time, yet through a consistent rate of change rather than an immense duration of wandering variation as in Feldman’s late works. In *Come Out*, Reich gradually changes two identical recordings of voice saying, “come out to show them” so that the phase differences between the two recordings gradually changes.\(^{66}\) This results in different rhythms, pitch inflections, and timbres emerging from the looped recording, then receding into the texture as the process unfolds.

Despite the constant change built into the compositional process, the temporal experience of the piece is a static one that can also be called “vertical” or timeless.\(^{67}\) Through different means, Feldman and Reich achieve related temporal results that serve to alter one’s sense of time and question the stability of everyday perception.

Composer Brian Ferneyhough has a completely different approach to questioning the stability of reality in his work. Rather than creating a static sense of endless time, Ferneyhough creates a multiplicity of tightly bound sonic timelines that intersect and interfere with one another. Ferneyhough explains, “in my own music, I have concentrated on the issue of interrelating iterative rhythm and metric structure through ratio relationships which are individually quantifiable, and thus


\(^{67}\) Kramer, The Time of Music, 57.
open to interaction in many diverse and complex ways.”

Within only the parameter of rhythm, Ferneyhough plays with multiple streams of information, even “multiple time and density streams in [one] monophonic instrument” in order to create a suitable level of interrelation and interaction between compositional layers.

The overall result of these compositional processes is one of meticulously crafted complexity; the performer’s relationship to the score is destabilized through an abundance of information and the listener’s relationship to the composition is complicated, if not made more opaque (depending on the listener’s familiarity with Ferneyhough’s aesthetic). Because of the sheer volume and richness of information that Ferneyhough communicates in his works, his compositions have the capacity to shock the (unfamiliar) listener out their normal modes of listening and understanding notated compositions—this is a high-modernist musical manifestation of the realist practice of questioning the stability of reality.

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69 Ferneyhough, “Duration and Rhythm,” 65.
1.2.5 Mimetic practices in literature and visual art

We need to learn about mimesis because mimetic artistic practices have been used in sonic art for some time, yet music has not been the subject of mimetic analysis comparable to that in literature and visual art. Rather than dismissing sonic works that use mimetic techniques as “programmatic” in favor of more substantial “abstract” music, composers and musicians are obligated to examine mimesis in music in as much detail as has been the case in other fields. Because of the inadequacy of the programmatic vs. abstract dichotomy regarding representation in music, it is necessary to examine the concept of mimesis in this history of literature and visual art. Unfortunately, it is outside of the scope of this study to address mimesis within the history of dance, theatre and other art forms, although this is a suitable area for future research.
CHAPTER 2
HISTORICAL MIMESIS AND LITERARY REALISM

2.1 A Historical Understanding of Mimesis

This chapter addresses the historical debate concerning mimesis originating from Plato and Aristotle and, using their ideas as a starting point, develops a framework for the understanding of mimesis in audio using Weiss’ analytical categories and by addressing the ideas of Baudrillard, Barthes, Deleuze, and Prendergast.

2.1.1 Plato’s mimesis

The philosopher Plato was the first writer to seriously consider the concept of mimesis, particularly regarding the place of the arts in society.70 Thirty to forty years later, Aristotle—in his collection of literary criticism, the Poetics71—made a series of counter-arguments concerning Plato’s ideas of mimesis. The scholarly debate between Plato and Aristotle that occurred over 2300 years ago continues to be relevant to current discussions of mimesis, imitation and the notion of reality in

70 Plato, Republic, trans. Bloom, Alfred (New York: Basic Books, 1991), Book X. While I am by no means an expert on the history of philosophy, mimesis has its roots in ancient Greek philosopher’s writings, and so we must examine their ideas in some detail.
art. Some authors, such as Matthew Potolsky in his short volume *Mimesis*,\textsuperscript{72} contend that all arguments concerning the nature of mimesis for the past millennia have been, in essence, a rehashing of Plato and Aristotle's original debate, albeit with different contextual implications.

The crux of the debate is that Plato argues that representation in art is a mere imitation of the real world whereas Aristotle argues that representation in art is the construction of a parallel world independent of the real world. In essence, Plato argues that mimesis in art is a dangerous parroting of truth, whereas Aristotle proposes the idea of a simulacrum: an imitation of the world that becomes a thing-in-itself that is just as legitimate as the original.

In books 2 and 3 of the *Republic*, Plato discusses imitation in poetry and acting. At first, Plato refers to the concept of mimesis among the many immoral frills of a so-called “feverish” or unhealthy city—“all the hunters and imitators, many concerned with figures and colors, many with music; and the poets . . . rhapsodes, actors, choral dancers.”\textsuperscript{73} From the very beginning, those who utilize artful imitation of life as a part of their craft are considered enemies of a virtuous and righteous society. Plato “separates mimesis from the real, the rational and the essential, and equates it with pleasure and emotion rather than truth, reason and the necessities of life.”\textsuperscript{74}

\textsuperscript{72} Matthew Potolsky, *Mimesis* (New York: Routledge, 2006).
\textsuperscript{73} Plato, *Republic*, 50.
\textsuperscript{74} Potolsky, *Mimesis*, 18.
Socrates, as Plato’s mouthpiece, also argues that the imitation used in the
arts “inevitably begets behavioral imitation.”\textsuperscript{75} Plato’s argument concerning mimesis
emerges from an overarching line of thought on broader topics such as political
organization, the nature of knowledge, and the true nature of justice.\textsuperscript{76} Plato’s
argument that imitation inevitably begets imitation is the same argument that
someone who watches violent entertainment will inevitably commit violent crimes
similar to those they see in artistic media. This conservative argument justifies the
censorship of art to include only what is legally permissible as a means to protect
people from imitating lawless behavior. Plato’s argument frames art, and artistic
imitation, as an inherently dangerous substance that must be regulated for the good
of the state. For Plato, “political power lies in the control of images.”\textsuperscript{77}

Using the object of the couch as a case study in book 10 of the \textit{Republic}, Plato
argues via Socrates’ voice that there are three possible natures for a couch: the ideal
form of a couch (made by a god), the physical object of the couch in the world (made
by a carpenter), and the imitation of a couch (made by a painter).\textsuperscript{78} From these
distinctions, Plato clarifies that the couch of the god is the true nature of a couch, the
couch of the carpenter is an imitation of the true form of a couch, and the painting of
the couch is an imitation of the carpenter’s imitation. The “Platonic ideal” of a couch

\textsuperscript{75} Ibid., 19.
\textsuperscript{76} Ibid., 17.
\textsuperscript{77} Potolsky, \textit{Mimesis}, 29.
\textsuperscript{78} Plato, \textit{Republic}, 280.
does not exist in the material world, but exists as the only True Couch, while the
painters imitation twice-removed from a couch is “surely far from the truth.”

A musical example of Plato’s idea of mimesis would be an unprocessed field
recording played back on a completely transparent audio system (or a
phonographic document). This is as close as music can currently come to a true
mirroring of nature—an attempt at an unbiased representation of the sounds of the
real world. However, a completely transparent mirroring of the sounds of the world
is impossible due to the inherent shaping tendencies of microphones, preamplifiers
and speakers when transducing energy into audio voltage.

Because no imitation can attain the true essence of an object, Plato makes
artistic representation out to be a lie. Crucial to this judgment is the assumption that
the artist must rely on the carpenter’s physical manifestation of the couch in their
imitation; no artist could possibly access the true rational form of a couch, according
to Plato. The physical world itself becomes “an imitation, and is always suspect.”

Mimesis is a mirror that reflects other objects in the world in a potentially
malevolent deception. Plato sees artistic imitation as existing without knowledge or
rationality. This is in direct opposition to Aristotle’s idea of mimesis, which requires
an understanding and technique all its own.

79 Ibid., 281.
80 Potolsky, Mimesis, 22.
2.1.2 Aristotle’s mimesis

Rather than treating mimesis as something to be feared and regulated, Aristotle begins his examination of poetry with the assertion that the medium is “a species of imitation” that has principles of construction and quality.\(^{81}\) Aristotle compares an effective plot with “physical objects and living organisms. . . [that] should possess a certain magnitude.”\(^{82}\) This comparison of artistic construction, and mimesis, to the processes and ideals of nature implies that art has rules of operation in itself; art is not a menace to society that must be contained for the good of human nature but may contain its own natural laws in parallel with nature.

At an artistic-technical level, Aristotle considers mimesis effective if it resonates with basic cognitive operations\(^{83}\) and effectively plays off of the cultural beliefs of the viewer. Therefore, Aristotle’s definition of mimesis is not just a mirror of the real, but an imitation that diverges from a strict reproduction of the material world. This has several implications. Firstly, for mimesis to work for a given audience it must submit to the conventions of representation for that time and place. This means that the audience and the artist must tacitly agree on a given set of tropes for the representation of nature; fidelity to the agreed-upon expectations determines the quality of the imitation.\(^{94}\) Secondly, the independence of an artistic representation of the world from the world itself introduces the idea of the

simulacra—a copy that potentially takes on its own essence.\textsuperscript{85} The issue of cultural codes and the nature of simulacra in mimesis concerning critical theory as well as the implications for soundscape composition and multimedia art will be discussed at length below.

According to Aristotle, mimesis is a craft with its own internal laws and logic\textsuperscript{86} and therefore doesn't have to literally mirror reality, but can instead imitate the processes of nature rather than the physical forms of nature. This higher order method of imitation has immediate implications for artistic forms of representation. Japanese \textit{Sumi-e} landscape painting, for example, captures the emotional essence of a landscape rather than the exact details of a scene as a way of playing with the viewer's perspective and perception of the natural world.\textsuperscript{87} This is not an accurate depiction of reality, and yet the mimesis succeeds in evoking a given landscape through the filter of the artist's abstracted representation. In soundscape compositions such as Luc Ferrari's \textit{Presque Rien no. 1},\textsuperscript{88} everyday sounds from a seaside village are presented as musical material. Although sounds from the real world may be recognized as such by the viewer, the sounds may be so culturally distant from the audience’s everyday experience that the sounds seem like an

\textsuperscript{86} Potolsky, \textit{Mimesis}, 33.
\textsuperscript{87} For more detail on this mimetic technique, see Charles Underriner and Nico Couck \textit{“Sumi-e and field recordings in musical practice,”} Paper included \textit{the Global Composition Conference proceedings}, Dieburg, Germany, July 2012.
accurate depiction of some other reality (as in a simulacra). Additionally, a field recording played back on suitable speakers may be such a strong mirror of sonic reality that the audience actually hears the sounds of the everyday rather than ignoring them—thus activating a listener's brain to pay attention to what they usually filter out of their experience. This is what Priest denotes to be “phenomenophilia” in experimental music, a listener “becom[ing] sensitive to the minor intensities of everyday life [so that] his or her perception is reinvigorated.”

Example 2.1: Mimesis in Plato vs. Aristotle

**mimesis**

**Plato**
- imitation of the real world (mirror)
  - irrational, inessential, dangerous
  - immoral pleasure in unlawful acts or people
  - political threat

**Aristotle**
- imitation that has its own rules separate from the original
  - rational, helpful, not dangerous
  - pleasure of artistic skill
  - artistic device, human learning
Aristotle is the first to point out the flexibility of mimesis in regard to artistic medium and the cultural norms of the viewer;\(^90\) each artistic medium will require a different set of techniques for achieving effective mimesis as well as result in a different perceptual effect for the viewer. In this study, we will trace the transformation of conventions for representing reality in the historical trend of realism in literature and painting and their relevance for contemporary musical developments. As we will discuss below, scholars such as Smalley, Wishart, Risset, Priest and Weiss have proposed models for understanding mimesis as it relates to current sonic practices.

Aristotle discusses the pleasures of imitation in regard to visual art as well as poetry: there is a delight in recognizing images from everyday life in art, or in the quality of an artistic imitation. The pleasure of realization is a completely different attitude than the skeptical political analysis of Plato. This dichotomy about the role of mimesis in artistic execution and society at large has set up the framework for how mimesis has been debated and understood to the present date. After an examination of realism\(^{91}\) in literature and painting, this study primarily focuses on mimesis in the audio realm. Using the debate between Plato and Aristotle concerning mimesis as a starting point, Allen S. Weiss’ categories of audio mimesis

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\(^{90}\) Potolsky, *Mimesis*, 34.

\(^{91}\) By realism, I mean not only the trends in 19\(^{\text{th}}\)-century (mostly French) painting and literature, but also the general representational mode of artistic production as defined by Morris below.
provide a preliminary framework for understanding mimetic processes in the musical world.\textsuperscript{92}

2.1.3 Weiss’ categories of audio mimesis

Weiss’ investigation into the mimetic techniques at work within the audio realm addresses the debate of the nature of music as either an abstract or representational medium. After a preliminary survey of the musical literature, Weiss delineates categories of mimesis in audio by defining the source, modality and referentiality of a given piece. Weiss uses source to define a sound as either concrete\textsuperscript{93} (recorded) or notated (that is, performed from notation); modality to define a sound as either hyperreal\textsuperscript{94} (that is, very true to everyday experience) or stylized (that is, conspicuously changed by the artist); and referentiality to define a sound as either evocative (or simulating a particular experience) or ambient (that is, implying a general mood). From these parameters, Weiss proposes 8 varieties of audio mimesis:

1. concrete/hyperreal/evocative

2. concrete/hyperreal/ambient


\textsuperscript{93} Please note that Weiss is not referring to the techniques or aesthetics of \textit{musique concrète} in this category, but chooses to designated any recorded sound as concrete. This term doesn’t intend to carry musical implications, but merely refers to the medium of recorded sound.

\textsuperscript{94} While Weiss uses the colloquial definition of hyperreal as “very real,” as we will see below, the more precise definition of hyperreality according to Baudrillard and Deleuze is when one cannot distinguish between the original and the copy.
3. concrete/stylized/evocative
4. concrete/stylized/ambient
5. notated/hyperreal/evocative
6. notated/hyperreal/ambient
7. notated/stylized/evocative
8. notated/stylized/ambient

Using these categories as general guidelines for discussion and for the classification of different sonic works, Weiss has begun to construct a set of artistic norms for sonic art that is comparable in detail to that in the history of literature and visual art. Music in Weiss’ “notated/hyperreal/ambient” category is what is traditionally considered “programmatic” music such as Messiaen’s *Oiseaux Exotiques*, a work for piano and chamber orchestra that makes significant use of specific birdsongs as musical material. Music in this category uses audio mimesis to simulate a specific experience (such as listening to birdsong) in a way that is true to everyday life through the performance of notated music. It is significant that programmatic music, as it is traditionally understood, only occupies one category of audio mimesis out of eight possibilities—this highlights how the issue of representation of reality in music has been largely unexamined. Rather than defining music as either “abstract” concert music that relies on internal logic or

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95 As a reminder, we are using Edgard Varese’s “organized sound” as a working definition of music.
“programmatic” music that is constructed according to some external story or situation, Weiss’ varieties of audio mimesis carve out a much more robust and rigorous set of criteria for understanding the issue of representation in music.

The category of “notated/stylized/evocative” has a greater degree of stylization by the artist than works in the “notated/hyperreal/evocative.” For example, Claude Debussy’s orchestral piece La Mer\(^\text{98}\) is meant to evoke an abstracted re-imagination of the sea rather than any one specific time and place. As opposed to Oiseaux Exotiques, which uses specific bird songs that Messiaen had transcribed, La Mer evokes the possible moods and gestures of the sea rather than anything so concrete as a recorded moment. Most of the works from Western music history until the 20\(^{th}\) century that refer to everyday sounds inhabit the “notated/hyperreal/evocative” and “notated/stylized/evocative” categories. This is partially because of the history of Western art music as a notated medium, which limited the technical possibilities of using environmental sound as musical material.

Music in the “concrete/hyperreal/evocative” category possesses the “maximal reality effect” of any of the categories of audio mimesis.\(^\text{99}\) This means that pieces in this category are representations of reality that are life-like enough that they can refer to a listener’s actual everyday experience rather than a learned set of conventions about what is realistic. The most clear example of this in audio practice


\(^{99}\) Weiss, Varieties of Audio Mimesis, 46.
is known as “phonography” or sonic photography.¹⁰⁰ In other words, pieces in the “concrete/hyperreal/evocative” category evoke a listener’s actual experiences of reality, thus referring to the so-called “category of the real” through the use of the “reality effect.” The origin and scholarly arguments concerning the reality effect are examined further in section 2 of this chapter below and more specific technical issues regarding the audio reality effect are examined in chapter 4, particularly in the writings of Smalley, Risset, Truax, Wishart, Field, and Young.

The practice of field recording and use of environmental sound in music has opened up the potential use of the reality effect into sonic art, and thus the potential for music to explore the experience of reality not just as a parallel program to abstract musical constructions—as in traditionally “programmatic” music—but as a viable material for music itself. Recent compositional use of instrumental and pitch-oriented musical sounds combined with environmental sounds, such as in soundscape composition and acousmatic music, can be understood as “an intellectual resynthesis of the world around us [that] express[es] [our] perceived control over, and understanding of, our environment and ourselves.”¹⁰¹ The use of the reality effect in audio mimesis is a way of reflecting on one’s subjective, everyday experience of the world in musical thought in an unprecedented way. Music in Weiss’ “concrete/hyperreal/evocative” category accesses the “very sounds

¹⁰⁰ See 4.1.2, “Soundscape practices and audio mimesis.”
of the world as music” through the transparent use of recording technology. This understanding of musical practice provides a broad framework for the discussion of mimesis in music comparable to the level of rigor present in critical theory, literary criticism and visual art.

In addition to current scholarly ideas concerning mimesis in sonic arts, there is a long and complex history of mimesis in various artistic fields that shape our current understanding of the possibilities of mimetic art. For example, imitatio is the Latin model for artistic education where poets would imitate older works as a way of forging something new. This is, in essence, the core of traditional arts education: a student learns both technique and aesthetics by the imitation of established models until they are able to make their own contributions to the field. Augustine, in his Confessions, articulates the dangers of theatre for its potential to make the morally despicable attractive. Mimesis in the theatre is “a form of attention, a conceptual envelope that surrounds and transfigures people and things” so that action onstage, while still a part of everyday reality, can be transformed into a performative space. The rest of our examination of mimesis in the arts will be limited to realism in literature and visual art.

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102 Weiss, Varieties of Audio Mimesis, 46, 103 Potolsky, Mimesis, 50. 104 Ibid., 72. 105 Potolsky, Mimesis, 76.
2.2. Literary Realism, the Reality Effect, and Simulacra

2.2.1 Realism in literature

In her volume, Realism, from the New Critical Idiom series on literary studies, Morris defines realism in literature as “any writing that is based upon an implicit or explicit assumption that it is possible to communicate about reality beyond the writing.”106 The analysis of realism in literature is problematic insofar as it relies implicitly on the highly contested notion of “reality,” and thus realism studied in literature is usually considered irrelevant except regarding 19th-century French literature during the time of Balzac and Flaubert.107 This is, in particular, due to the pervasive post-modern critique of the novel’s ability to “communicate any truths at all about human existence in [the] real-world beyond the text.”108 However, Morris makes the argument that realism (as an artistic application of and different name for mimesis) has broad historical relevance in literary history besides the 19th century such as in the writings of Chaucer and in classical literature.

Mimesis, by definition, refers to a reality outside of the artwork itself. Therefore, analysis of realism in literature is relevant to our current understanding of mimesis in music because it provides a history of case studies and debate concerning the techniques, results and implications of mimesis in one artistic medium. While the findings of critical theory and literary analysis concerning realism cannot be exported wholesale to music, three significant trends of realism—

107 Morris, Realism, 6.
108 Ibid., 6.
the reality effect, the rigorous observation of reality, and the questioning of the
stability of reality—are relevant to mimesis and current practices in music
composition.\textsuperscript{109}

Morris traces the history of realism in literature from the Enlightenment to
Modernism and explicates the shifting understanding of the procedures and
connotations of realism according to various political and aesthetic philosophies.\textsuperscript{110}

The central debate of realism in literature concerns the idea that conventions of
realistic representation are a truth-telling procedure to the reader. In essence, 19\textsuperscript{th}-
century writers operated under the notion that reality is stable and is capable of
being understood and articulated in rational thought while modernist writers
argued that reality is unstable and multiplicitous, and therefore can only be
articulated in its intangibility.\textsuperscript{111} Frankfurt School cultural critics and philosophers
and such as Theodor Adorno argued that realist writing implicitly affirms the world
as “familiar, morally and socially categorized and predictable,” which is in essence a
“diversion from any troubling reality.”\textsuperscript{112}

From an aesthetic perspective, “Realist” writers make truth statements about
the real world through their characters and plots while modernist writers evoke the
instability of reality through various experimental techniques. For example, George

\textsuperscript{109} For more detailed connections between the three practices of realism and the
musical literature, refer to Chapter 4. For a specific analysis of mimetic techniques
in music, refer to 4.3, “Analysis of 2 Seconds/B Minor/Wave.”
\textsuperscript{110} Morris, Realism, 9-44.
\textsuperscript{111} Morris, Realism, 17.
\textsuperscript{112} Ibid., 17.
Eliot uses the detailed observations of an omniscient narrator in _Daniel Deronda_ to articulate inner truths about people and society. By contrast, Virginia Woolf uses a constant stream of subjective dialogue and lack of closure in _Mrs. Dalloway_ to suggest something like the actual inner flow of thought in a given present to the reader.\(^{113}\)

Woolf’s resulting lack of closure, external commentary, and truth statements connect her realist writing to the conventions of acousmatic music—music for loudspeakers where invisible sound sources act out in virtual or real-world spaces. In the most abstract of acousmatic pieces there is an “ambiguous and allusive play of causalities, metamorphoses, acoustic imagery and the behaviour of sounds in virtual spaces.”\(^{114}\) For example, _Sud_ by Jean-Claude Risset is a compositional interplay between field recordings of different natural settings with synthesized imitative sounds that resemble the field recordings.\(^{115}\) Risset takes advantage of the overlap between the concrete and synthetic sounds to create an “ambiguous and allusive play. . . of acoustic imagery.” The mimetic connections between two extremely different artistic media—the novel and electroacoustic music—are examples of the broad relevance of the realist trends of rigorous observation of reality and

\(^{113}\) Ibid., 11-16.


questioning the stability of reality. Both media, in their own way, seek to "shatter the façade of empirical reality."\textsuperscript{116}

2.2.2 The reality effect in literature

This questioning of the stability of reality as a trend gained more and more traction after the development of modernist thought in literature. Writer Oscar Wilde and critical theorist Roland Barthes both agree that “art impoverishes itself, or deceives its audience, if it seeks only to depict the world or reflect the prevailing conventions of its age.”\textsuperscript{117} According to Barthes, the depiction of the world in literary realism is completely contingent on clichés and conventions.\textsuperscript{118}

In his essay, “The Reality Effect,”\textsuperscript{119} Barthes argues that realism is not actually tied to reality at all, but is a mere social construction based on a convention of what constitutes an effective representation of reality. Despite the fact that realism appears to operate through accurate representations of everyday life—commonly called “verisimilitude” or “life-likeness”—this is actually a calculated manipulation of cultural codes by the author rather than reality itself. The “reality effect,” one of the major artistic techniques of mimesis, is the use of concrete (and seemingly meaningless) details to lend literary description the weight of the experience of reality. The reality effect works through metonymy. That is, a

\textsuperscript{116} Morris, \textit{Realism}, 43.
\textsuperscript{117} Potolsky, \textit{Mimesis}, 9.
\textsuperscript{118} Ibid., 99.
seemingly meaningless detail will not denote reality itself, but will signify reality by evoking the category of the real. According to Barthes, a fragmentary detail in the midst of a realistic description of a scene will transcend the signifier and referent and instead refer directly to the category of the real, thus creating an overall effect of reality as we experience it.120

Therefore, a given phrase in realistic literature will trigger the reader's experience of reality through metonymy. For example, if in a novel it says that “the man took a long shower,” the reader associates the phrase “a long shower” with the actual tactile experience of taking a long shower—the warmth and pressure of the water on your skin, the steam that generates in the bathroom, the smell of soap, the temporal sense of lingering. The phrase “a long shower” contains none of these experiential details, yet as the metonym of “the crown” can stand for the monarchy, “the long shower” refers to one’s real experiences of a long shower. Therefore, if the reality effect is in operation, a reader will fill in the phrase “a long shower” with their own reality of taking showers. Like Plato, Barthes contends that realism is twice removed from an object's original by simulating the essence of an object.

Example 2.2: The Reality Effect in literature

2.2.3 The audio reality effect

Because of the reality effect, "the real" in all artistic media can be understood as the fragmentary, the unexplained detail, and transient that refers to the category of the real, the everyday experience of the viewer or listener. In music, the reality effect may also be understood as a specific kind of transcontextuality—when the listener can hear both the sound itself and something of its original context.\(^{121}\) The audio reality effect is when a listener, after identifying the source of a sound used in a musical context, infers and superimposes their own memories and experiences into their experiences of the piece.

An audio example of transcontextuality would be listening to the sounds of a shower—the squeaking of turning knobs, the running of water out of the showerhead, the sounds of stepping into the shower—and hearing both the sonic qualities of the sounds themselves as well as their original context (i.e. being in the

shower). However, the reality effect in audio goes one step further than Smalley’s transcontextuality in that it also denotes that the listener will, after hearing and recognizing the context of the sounds, infer and superimpose their own tactile experiences onto their listening.

Example 2.3: The audio reality effect

Through the audio reality effect, the listener may experience the memory of warm water on their skin and the feeling of stepping into a shower even though there is no changing spatial or temperature information being transmitted in the audio. After the listener recognizes the source context of a sound, the sounds trigger

the tactile experiences and memories of the listener. The listener may have memories of smelling soap triggered after hearing the sounds of a plastic soap bottle, and yet there is no sensory information other than sound transmitted to the listener. The reality effect in audio works differently than in literature since audio is a time-based medium—in order to experience a “long shower” by listening to sounds, the sounds of the shower must continue for what is a “long time” in the given musical context.

The audio reality effect has implications for both acoustic and electroacoustic music. In particular, the orders of gestural surrogacy, the continuum of source recognition, the form of aural-mimetic compositional discourse, and the resulting real-unreal mimetic continuum all serve to clarify a listener’s experience of the audio reality effect. (This is explored at length in Chapter 4, especially in 4.2.3, “Source recognition and the audio reality effect”). The audio reality effect is one of the most powerful applications of mimesis to musical practice—the evocation of the audience’s everyday experience through the revealing of a sound’s context.

However, text is much more efficient in referring to the category of the real because words are in themselves signs whereas sounds are not necessarily signs. That is, the word “shower” is a combination of letters that refers to a set of possible nouns and verbs, whereas the sound of water dropping does not necessarily denote a given action or entity. “The man took a long shower” can communicate a myriad of experiences including temporal, sensory, psychological, philosophical, et. al depending on the reader’s background and memories relating to the signs of the
sentence. A recording of a shower can only trigger the experiences of a listener as long as they associate a *given set of sounds* with a subjective experience. The audio reality effect is more contingent upon the listener’s everyday experience of hearing the sounds around them because they must interpret the sounds as coming from a given source context (transcontextuality) before those sounds can trigger a set of subjective experiences.

2.2.4 Baudrillard, hyperreality, and simulacra

One significant development in the debate concerning reality and mimesis in contemporary life and art is philosopher Jean Baudrillard’s ideas concerning hyperreality and simulacra. Baudrillard argues for hyperreality—the idea that it is no longer possible to distinguish between the real and the imaginary in life in general: “illusion is no longer possible because reality is no longer possible.”¹²³ This changes the implications of the reality effect in that not only is the idea of reality unstable, but we may not be able to distinguish an illusory reality from a fabricated one. In a way, this is a confirmation of Plato’s greatest fears of mimesis; mimesis has become so sophisticated and so ubiquitous that its deception is inescapable.

Furthermore, if hyperreality exists in life and art and the relationship between an original and its copy is unstable, then copies begin to take on a life of

their own independent of their origins; imitations become simulacra. This is elevating mimesis to be as equally legitimate as a true original—a clone is just as legitimate an offspring as a natural-born child. Baudrillard, in essence, reverses the logic of the reality effect, of details standing in for reality, and applies this logic to life itself: “It is a question of substituting the signs for the real for the real.”

Philosopher Gilles Deleuze affirms Baudrillard’s idea of the simulacrum by arguing simulacra are real objects in themselves: “The simulacrum is not a degraded copy...there is no longer any privileged point of view...no possible hierarchy... [the simulacrum] denies the original and the copy, the model and the reproduction.”

In audio mimesis, this means that synthesized versions of real-world sounds are just as legitimate as the field recordings and environmental sounds themselves in representing reality—there is now overlap, and even unity, between the synthetic, the concrete and the real. As we will examine further in chapter 4, Risset and Smalley have written about the relevance of simulacra in their electroacoustic music.

Baudrillard’s final contribution to our study of mimetic techniques is that of the non-resemblance of objects to themselves: “[E]verything escapes representation, escapes its own double and its resemblance...nothing resembles

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itself.” Baudrillard argues that although the real object is “supposed to be equal to itself . . . to resemble itself like a face in a mirror,” that objects do not even resemble themselves. Baudrillard takes questioning the instability of reality to another level—it is not that we cannot represent reality, but rather that we cannot discern reality, and that reality cannot be identified with itself. This relates to the issue of source recognition or transcontextuality in electroacoustic music.129

The non-resemblance of objects to themselves makes mimesis the only way to fix an object in time/space so that it has a definite identity. Thus, to Baudrillard, imitation and simulation are the only way to truly make an object stable. Deleuze argues for non-resemblance as a primary attribute of simulacra. As Plato designated with his dichotomy of eikastic vs. phantastic images, Deleuze argues that simulacra correct their portions to compensate for the viewpoint of the audience: “The copy is an image endowed with resemblance, the simulacrum is an image without resemblance” or that does not resemble the original’s exact proportions.130

2.2.5 Applications to music

Hyperreality and simulacra are particularly relevant for soundscape composition and multimedia art practice. In Landscape Series: 1, I combine works for multiple chamber ensembles, video and manipulated field recordings into a hybrid environmental experience as a way of translating of the notion of landscape

128 Baudrillard, Simulacra and Simulation, 71.
129 See Chaper 4: Mimesis in Electroacoustic Composition.
130 Deleuze, The Logic of Sense, 257.
from that of a two-dimensional static image (as in 19-century landscape painting) into a multiplicity of environmental experiences. The combination of stylized video—an abstracted representation of reality—with high-definition field recordings—an effective simulacrum—and chamber music written to evoke the sensation of highway hypnosis creates a sense of multiple interpretations of reality juxtaposed at once. This kind of multimedia orchestration attempts to combine multiple mimetic techniques simultaneously to create a maximum plurality of the reality effect.

Example 2.4: Landscape Series: 1, p. 9
Critical theorist Christopher Prendergast provides a recent critique of Barthes’ reality effect in the ongoing scholarly debate on mimesis in his book, *The Order of Mimesis*. Prendergast’s main critique of Barthes reality effect proposition is that it fails to acknowledge recent scholarship concerning the lack of transparency of language, the problem that representation itself is a self-limiting trap mechanism within a framework of resemblance, and the issue of an unidentified “Transcendental Subject” that must be present for the social contracts of mimesis to function. The most important refinement that Prendergast makes to the reality effect is that it operates under an existential presupposition that reference can still function in the context of fiction, which operates in the realist mode, yet does not necessarily link to any concrete time and place in reality. While Prendergast sees this as problematic in terms of literature, this distinction is helpful for music.

Prendergast’s refinement of the reality effect is particularly relevant to electroacoustic music. Since recorded sounds do not necessarily relate to anyone’s everyday experience except for the person that recorded them, the reality effect of a given concrete sound does not necessarily link to a listener’s experiences, but may still operate to create a sense of alternate reality. For example, I have never listened to the sound of ants inside of a tree, but when I listen to David Dunn’s *Sound of Light*
in Trees,136 I have to deal with the sonic reality of a space and context that I have never encountered. The fact that the reality effect still operates despite an unknown reference is part of the reason acousmatic music's hidden sound sources are so effective in manipulating the listener's sense of space and source materials. In its use of the reality effect, music operates as the sound-poetry of the instability of reality.

As we have examined in the fields of critical theory and literary criticism, mimesis has had a significant impact on the artistic techniques and analytical understanding of literature throughout history, including in the works of Plato and Aristotle. Through realist literary methods, writers have developed mimetic techniques that can be understood through the identification of the reality effect, the emergence of hyperreality and the creation of simulacra. These aspects of mimesis in literature are relevant for the understanding of electroacoustic music and multimedia art. As we will see in chapter 3, realist methods in visual art further affirm the tendencies of mimetic art to utilize the reality effect, the rigorous observation of reality, and the questioning of the stability of reality.

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CHAPTER 3
REALISM IN THE VISUAL ARTS

3.1 Realism in Static Visual Arts

This chapter examines realist methods in visual art as a way of further affirming the tendencies of mimetic art to utilize the three main trends of realism. Using Gombrich and Nochlin, this chapter explores the realist connections between literature, visual arts, and music. Mimetic techniques for the moving image and multimedia art are applied to Backroads using the writing of Chion and Grau.

3.1.1 Realist connections between literature and visual art

Roland Barthes, in his essay on the reality effect, argues that realist writing is not actually tied to reality at all, but relies on the social constructions of convention in creating a skillful depiction of reality.\(^\text{137}\) By tracing the development of mimetic techniques throughout visual art history, it is evident that realist techniques rely on conventions not only in writing, but also in visual media. In Potolsky’s book on mimesis, he argues that adherence to conventions is just as significant as the direct observation of the everyday, and that the history of painting is marked by changes in both technique and convention such as perspective:

\[^{137}\text{Barthes, “The Reality Effect,” 6}\]
One of the most important realist techniques in the history of painting was the development of linear perspective in fifteenth-century Italy. Based on new theories of optics and geometry, perspective allowed painters to produce an illusion of three-dimensional space on the flat surface of the painting.\textsuperscript{138}

This use of visual illusion to create a sense of perspective manipulates the way vision works in order to present the viewer with content that looks as it would in the real world. According to E.H. Gombrich’s book \textit{Art and Illusion}, Alberti conceived of the operations of perspective when he noticed, “certain contours needed only a very slight change to look strikingly like some natural object.”\textsuperscript{139} These adjustments to correct an imitation of reality to appear true-to-life are the basic criteria for a simulacrum,\textsuperscript{140} a copy that takes on a life of its own separate from the original.

\textsuperscript{138} Potolsky, \textit{Mimesis}, 100.
These slight adjustments in artistic technique to make a convincing representation of reality were passed down from one generation to the next, creating a “psychology of style” that evolved based on the current state of a given society. Realist techniques in each artistic medium changed throughout history to accommodate the norms and social conventions of the time—this is the so-called “social contract” of realism affirmed by Aristotle, Barthes, Potolsky, Gombrich, Prendergast, and Morris. This conformity of artists to convention is true not only in literature but also in visual art and music. An artist in any medium “needs a vocabulary before he can embark on a ‘copy’ of reality,” a vocabulary that inevitably
consists of a “limited number of types, gestures . . . and stock figures which can be traced back for centuries.”

In music, the most powerful stock vocabulary is a relatively recent one, the advent of sound recording technology in which the sounds of nature “can at last come into their own.” This was not explored in great depth until the soundscape genre of electroacoustic music emerged in the 1970s.

The conventions of realist artistic techniques can be manipulated to create ambiguous or indeterminate illusions that project reality in unpredictable ways. For example, Dutch artist M.C. Escher made numerous drawings and paintings that utilize multiple simultaneous perspectives.

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143 Gombrich, Art and Illusion, 71.
145 See 4.1.1, “Acoustic Ecology and the origins of soundscape.”
Example 3.2: *Relativity* by M.S. Escher\(^{146}\)

In *Relativity*, Escher plays with multiple perspectives of the same androgynous figure in stairways and different rooms. Escher creates an impossible world “where ‘up’ and ‘down’ and ‘right’ and ‘left’ have lost their meaning.”\(^{147}\) There

\(^{146}\) Maurits Cornelius Escher, *Relativity*, 1953, lithograph, 277 mm. x 272 cm. ARTStor slide gallery. Accessed Nov. 25, 2015, [http://libproxy.library.unt.edu:2325/library/secure/ViewImages?id=8CJGczI9NzldLS1WEDhzTnkrX3gqelh3dyM=&userId=gDJEdzkt&zoomparams=](http://libproxy.library.unt.edu:2325/library/secure/ViewImages?id=8CJGczI9NzldLS1WEDhzTnkrX3gqelh3dyM=&userId=gDJEdzkt&zoomparams=)

\(^{147}\) Gombrich, *Art and Illusion*, 197.
is a deliberate conflict of perspectives that defies the laws of gravity and the viewer is left to determine where the correct “up” is in the piece. The viewer realizes the paradox of Escher’s construction “in trying to work out the intended relation of things and sights.”148 This is similar to the use of multiple sonic perspectives in electroacoustic music, a hybrid use of the indicative space-field to create a surreal mimetic result.149

Escher’s juxtaposition of multiple perspectives of similar subject matter creates an illusion of multiplicity with an indeterminate result—the viewer has to determine the orientation of the piece by choosing which sections of the piece seem to be the most stable. This is a stimulating and somewhat disorienting use of realist techniques to create a rich illusion of an impossible reality.

If Escher allows the viewer to navigate his pieces in a relatively flexible way, the goals of Cubist artists was to “stamp out ambiguity and to enforce one reading of the picture” by the “introduction of contrary clues which will resist all attempts to apply the test of consistency.”150 This is a transformation of realist techniques to include multiple simultaneous perspectives that actively clash against one another, creating a “visual deadlock.”151

148 Ibid.
149 For more information on this, see 4.2.4, “Indicative fields and the questioning of the stability of reality.”
150 Ibid., 226-227.
151 Ibid., 226.
Example 3.3: *Violin and Candlestick* by Georges Braque

In the case of *Violin and Candlestick*, Braque attempts to simulate a three-dimensional reading of his subjects by showing his subject matter not only from different perspectives but also from shifting vantage points. The violin in the lower-left section of the piece is shown quite large, and slightly from the side whereas the

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152 George Braque, *Violin and Candlestick*, 1910, oil on canvas, 60.96 cm. x 50.17 cm. San Francisco Museum of Modern Art, (SFMOMA), ARTstor collections, Accessed Nov. 25, 2015, [http://libproxy.library.unt.edu:2325/library/secure/ViewImages?id=8CNVfzk Jiw9NEA7eD95QX4tWXIm&userId=gDJEdkzt&zoomparams=](http://libproxy.library.unt.edu:2325/library/secure/ViewImages?id=8CNVfzk Jiw9NEA7eD95QX4tWXIm&userId=gDJEdkzt&zoomparams=).
violin just above it is shown smaller, and from a straight-on viewpoint. This juxtaposition creates a collision for the viewer that “enforces the reading of the picture” rather than allowing the freedom of the viewer to choose a perspective as in Escher’s *Relativity*. There has also been significant achievement in more recent visual art using mimetic artistic techniques—the everyday object sculptures of Claes Oldenburg, the animated comic-book films of Lewis Klahr, the video art of Bruce Nauman and many more. Unfortunately, an examination of sculpture, experimental film, and other visual media is outside of the scope of this paper but is a suitable subject for further research.

3.1.2 Mimetic techniques in *Backroads*

In my compositions for video and field recordings, I seek to apply this multiplicity of stylized depictions of reality to create a rich sense of multimedia illusion—simulacra that, in their changes from reality, play with the viewer’s perception of a given context. For example, in *Backroads*[^153] for video and 8-channel audio, I juxtapose driving footage from multiple perspectives onto itself using filtering techniques to create a counterpoint of direction and shadow.

The perspectives in this section of *Backroads* are all from the side of a moving car looking out toward the passing scenery. Shot during the daytime, I used a series of filters in Final Cut Pro and Adobe Premiere Pro to make each shot a black and grey tone that filters through the other shots. The result is a collage of driving the same road juxtaposed on top of itself—a sort of paradoxical dream state akin to the perspective-puzzles of Escher. *Backroads* plays with the notion of highway
hypnosis—an exploration of delirium and displacement by "combining long
duration, abstracted video shots of driving the back roads of rural Texas with audio
field recordings and very slowly evolving organ drones." The superimposition of
2-5 driving shots on top of each other at different angles, and that travel in different
directions, is a hallucinatory fantasy of what one may experience when driving the
seemingly unending Texas back roads at night.

In example 3.4, a section of Backroads is broken down into its 6 component
layers, each of which travels in a different direction and has one of 4 orientations.
When compared with Escher’s Relativity, it becomes clearer how the combination of
multiple perspectives and orientations can create a rich set of contingences for the
eye.¹⁵⁵

¹⁵⁴ “Backroads, conceptual notes,” accessed March 8, 2016,
¹⁵⁵ For an audio example of indicative space and environment in Backroads, see
eexample 4.6.
Example 3.5: Layering in *Backroads* and *Relativity*
However, in addition to the paradox of perspective idea that Escher executes so convincingly by having multiple orientations—or the sense of which direction is “up”—Backroads also involves motion (since it is in the medium of video rather than etching). The integration of motion creates even more confusion for the eye and the viewer is even less sure what the “correct” perspective should be when watching the combination of 6 layers.\footnote{A video version of this combination of layers can be viewed here: \url{https://www.youtube.com/watch?v=ujBwZ4bgrVo}, Accessed Dec. 2, 2015.} In the same way that Braque and Escher utilized mimetic techniques in painting to create “visual gridlock” and a paradox of perspective, Backroads questions the stability of the reality of its subject matter. Visual art can not only play with the conventions of realist representation to question the stability of reality, but can also utilize the reality effect and operate under the rigorous observation of reality. Because of the development of scholarship concerning mimesis in 19th-century classic “Realist” painting, we will examine the realist techniques of painters in that era to clarify the use of the reality effect in visual art.

3.1.3 19th-century painting Realist painting and the reality effect

Linda Nochlin, in her book Realism, describes “the role played by actual objective observation of the external world in the creation of Realism.”\footnote{Linda Nochlin, Realism (New York: Penguin Books, 1971), 17.} Mimetic techniques in 19-century “Realist” paintings illustrate the importance of the visual reality effect and the rigorous observation of reality. The reality effect was initially described by Barthes as a meaningless detail in prose description that evokes the

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category of reality. However, as we have seen in chapter 2, the reality effect can also be at work in the audio realm as a mimetic extension of transcontextuality.\textsuperscript{158} As Nochlin describes in two paintings of the execution of Emperor Maximillian in Mexico, the rigorous notation of fleeting details in painting also has the capacity to evoke the category of reality in the viewer's experience. This is particularly striking when examining two depictions of the same event.

Example 3.6: \textit{The Third of May, 1808} by Goya\textsuperscript{159} and \textit{The Execution of Emperor Maximillian}, by Manet\textsuperscript{160}

\textsuperscript{158} See 2.2.2, “The reality effect in literature,” and 2.2.3, “The audio reality effect.”
\textsuperscript{159} Francisco de Goya, \textit{The Third of May, 1808}, 1814, oil on canvas, 266 cm. x 345 cm. Museo del Prado. Erich Lessing Culture and Fine Arts Archives/ART RESOURCE, N.Y., accessed Nov. 26, 2015, http://libproxy.library.unt.edu:2325/library/secure/ViewImages?id=%2FThWdC8hlywtPygxFTx5TnQkVn0qeQ==&userId=gJDzdkt&zoomparams=.
\textsuperscript{160} Édouard Manet, \textit{The Execution of Emperor Maximillian}, 1867, oil on canvas, 48 cm. x 58 cm. Erich Lessing Culture and Fine Arts Archives/ART RESOURCE, N.Y., accessed Nov. 26, 2015, http://libproxy.library.unt.edu:2325/library/secure/ViewImages?id=%2FThWdC8hlywtPygxFTx5TnkgXXwoeg==&userId=gJDzdkt&zoomparams=. 

71
According to Nochlin, Goya depicts the progression of time and summarizes the unfolding of the execution while Manet shows the moment in time as a “truthful observer,” like a photojournalist. Goya’s painting acts as a summary in that it shows the changing states of a man executed—standing with his hands up, bending over after being shot, and sprawled on the ground with blood underneath him. In Goya’s work, it is clear that it is not the same man that is depicted in these various states of execution, but Goya uses multiple figures to achieve this sense of the progression through an idealized use of time. With the posture of the firing squad, it is not actually clear which moment in the execution is being shown; is it the moment

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just after the shots have fired? If so, why isn’t there smoke coming from the guns? In this way, Goya uses his subject as a metaphor to reflect on the human experience of the horrors of execution.

In contrast, Manet depicts the “action itself”\textsuperscript{162} of the execution. Manet does not use an idealized sense of the progression of time, but instead captures a single moment as in a photograph. Manet highlights the concrete objects of reality that are not necessarily essential to the emotional resonance or historical importance of the event: the quality of light on the sword-hilts of the soldiers, the seemingly bored soldier off to the right, the subtle changes in skin tone showing above the collars of the soldiers, and the details of the military uniforms. Through his focus on these relatively unimportant details, Manet makes the executioners the focal point of his composition rather than the man being shot.

In fact, critics of 19-century painting often “berated artists for reducing the great themes of Western art and literature... to the banal level of mere commonplace, everyday reality.”\textsuperscript{163} Certainly, Manet’s \textit{The Execution of Emperor Maximillian} downplays the human drama of the moment in an attempt to be a relatively unbiased reportage of the event. Manet’s highlighting of the concrete details of the soldier’s uniforms has the capacity to work using the reality effect—a result completely different than the expressiveness of Goya’s painting. That is, the rigorous depiction of details in Manet’s painting, such as the shifting quality of light

\textsuperscript{162} Ibid., 31.
\textsuperscript{163} Ibid., 58.
on a soldier’s clothes, can refer to the experiential category of reality and cause the viewer to fill their own experiences and memories into their perception of the work.\textsuperscript{164} This is the so-called ultimate conclusion of realist truth-telling in painting, “the scrupulous notation of isolated phenomena”\textsuperscript{165} in order to evoke reality.

The reality effect, as one of the three main trends of mimetic art, can operate using the literature, in visual art, and in music. Despite the overall mimetic result of a given work as a surreal confusion as in Escher or a “realistic” snapshot as in Manet, the evocation of reality through the depiction of meaningless details is a powerful tool that artists of multiple media have used throughout history. The scholarship on the reality effect in literature and visual art is helpful for exploring the implications of the audio reality effect to past and current musical practice.\textsuperscript{166}

3.2 Realism in Film and Multimedia

While most of our discussion has focused on still images in visual art, media such as video and film have more in common with music since they are also time-based. Michel Chion ties together theories about simulacra, visual realism, and audio practice in his analysis of sound and image in film, \textit{Audio-Vision}.\textsuperscript{167} Chion’s distinctions regarding mimetic techniques in film are helpful regarding the artistic

\textsuperscript{164} As in all artistic media, the effectiveness of the reality effect is contingent on the subjective experiences of the listener or viewer.
\textsuperscript{165} Ibid., 63.
\textsuperscript{166} For more, see 2.2.3, “The audio reality effect,” and 4.2.3, “Source recognition and the audio reality effect.”
process in my own multimedia and video works because of his argument concerning simulacra in film.

3.2.1 Simulacra in film

Chion argues that the combination of sound and image in film—that is, recorded sounds diffused using loudspeakers and 24 images per second using a projector—actually creates a simulacrum of “movement and life” itself.\footnote{168} Film has the capacity to not only imitate a moment in time or a single object as in painting or capture the sounds of a place as in field recording. The combination of sound and image is a synergetic combination that enables film to imitate not just a copy of life, but also the continuity of reality itself. The power of sound and image in the medium of film has the capacity to transport the viewer into a life and reality separate from their own.

However, the relationship between sound and image in film is not always a balanced one. Sound can give momentum to relatively static visual content,\footnote{169} the rhythms of simultaneous sounds and images affect one another,\footnote{170} images create a temporal structure and context for sound to inform,\footnote{171} and sound and image can either fuse into a single unit or operate in complete conflict.\footnote{172}

\footnote{168} Chion, \textit{Audio-Vision}, 9.
\footnote{169} Ibid., 12.
\footnote{170} Ibid., 17.
\footnote{171} Ibid., 17.
\footnote{172} Ibid., 44 and 63.
Chion affirms Aristotle, Barthes, and Nochlin's ideas regarding changing conventions of realist artistic methods with each generation, or the “social contract” of realism, for the medium of film: “In order to assess the truth of a sound [in its relationship to image], we refer much more to codes established by cinema itself... and narrative-representational arts in general, than to our hypothetical lived experience.” The codes and conventions of the medium of film alter one’s perception of reality in a given work. Therefore, film operates under the same mimetic trends as literature, music, and the static visual arts; the rigorous observation of reality, the use of the reality effect, and the questioning of the stability of reality.

Chion has helpful ideas regarding our perception of reality in general; our brains are overwhelmed with sensory information and we construct our perception of the world based on the succession of details we choose to notice.

The world is in motion and in chiaroscuro. We can only see one side of things, only halfway, always changing... Our attention, too, is in chiaroscuro. It flits from one object to another, grasping a succession of details and then the whole.

The flitting of one’s attention from one object to another in order to grasp the details and then the whole is particularly relevant to multimedia works. If the combination of moving image and sound in film has a synergetic effect on our perception, then the addition of even more simultaneous media serves to further

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173 Ibid., 107.
174 Ibid., 169.
overwhelm our senses and change our perception of the real, even to blur the line of division between the real and the imaginary.

3.2.2 *Illusion, multimedia, and the reality effect*

Oliver Grau argues that multimedia art\(^\text{175}\) that utilizes virtual reality and other amalgams of digital technology evolved from very large-scale panorama paintings of battles,\(^\text{176}\) Monet's panorama of water lilies,\(^\text{177}\) film and 3-D cinema,\(^\text{178}\) multimedia events that combine film projections, slide projections, loudspeakers, and live performers such as John Cage's HPSCHD,\(^\text{179}\) and interactive multimedia art.\(^\text{180}\)

The basic concept behind multimedia arts is to create a combination of artistic elements that are capable of fully immersing the viewer. In some works, such as Charlotte Davies' *Osmose*,\(^\text{181}\) the multimedia immersion can overpower the viewer by creating the illusion of an alternate (virtual) reality. The individual user of *Osmose* wears a head mounted display and explores interactive 3-D graphics and sound that create a simulacrum of nature.\(^\text{182}\)

\(^{175}\) This term is interchangeable with “intermedia”.


\(^{177}\) Grau, *Virtual Art*, 142.

\(^{178}\) Ibid., 158.

\(^{179}\) Ibid., 164.

\(^{180}\) Ibid., 176.

\(^{181}\) Ibid., 193.

\(^{182}\) Ibid., 196.
This simulacrum is quite different from that of a convincing painting of a couch, or a high quality field recording—the head mounted screens and diffused audio create a completely different sense of reality than looking at a canvas or only listening to speakers. It is not only that the artwork takes up a larger percentage of the user’s view, an effect capitalized on by 3-D IMAX cinema technology,\textsuperscript{183} but also that the immersive imagery responds to the motions of the viewer. Davies’ simulacrum doesn’t just evoke our everyday experience of nature, but transports the viewer \textit{inside of} different impossible environments. It is possible that this multimedia immersion bypasses the reality effect by simply overwhelming the viewer.

\textit{Landscape Series: 1}, a modular combination of the video and chamber music pieces of the \textit{Landscape} series, utilizes the powerful potential of multimedia immersion by using three large projectors, a 16-speaker audio array, and 10 musicians that change performance location around the audience throughout the performance. \textit{Landscape Series: 1} explores multimedia counterpoint through the juxtaposition of multiple videos, field recordings, and chamber music performance. At the 27:00 mark of the performance, there are three videos from \textit{Landscape: Graz} juxtaposed against one another to create a counterpoint of directionality and perspective.

\textsuperscript{183} Ibid., 160.
Example 3.7: *Landscape Series: 1*; video stills from the three videos, p. 18 from the score, and a partial view of the video projection in the performance space.
When projected in a black box space such as the Merrill Ellis Intermedia Theatre at the University of North Texas, the multiple videos can overwhelm the viewer with a sense of a multi-layered alternate reality. The contrasting directions of the videos—the left video moves to the right in reverse, the center video moves
to the right, and the right video moves to the left—creates a sense of multiple perspectives that converge between the center and right screens. When these video pieces are combined with high definition field recordings that exhibit the audio reality effect and chamber music performance, the result is a sense of hybrid realities between the combinations of media.

Now that we have examined the mimetic trends and techniques at work in the histories of literature, painting, film, and multimedia, we will examine trends of realist practice and the audio reality effect in electroacoustic music and soundscape composition using the works and writings of Schafer, Emmerson, Truax, Wishart, Risset, Smalley, Fischman, Young, and Field.
CHAPTER 4

MIMESIS IN ELECTROACOUSTIC COMPOSITION

4.1 The Conceptual Basis of Soundscape Composition

This chapter examines trends of mimetic practice and the audio reality effect in electroacoustic music, including soundscape composition, using the works and writings of Schafer, Emmerson, Truax, Wishart, Risset, Smalley, Fischman, Young, and Field. Then, as a case study, this chapter analyzes mimetic techniques in *2 Seconds/B Minor/Wave* by Michael Pisaro and Taku Sugimoto. While an examination of sound art, electronica, video games, installations and other sonic practices would be equally worthwhile, practitioners in the field of electroacoustic music have developed unique analytical frameworks for understanding mimesis in music. Electroacoustic music is a suitable, but by no means all-encompassing, starting point for understanding mimesis in the sonic realm.

4.1.1 Acoustic ecology and the origins of soundscape

Composer/theorist R. Murray Schafer founded the research project the World Soundscape Project in the 1960s at Simon Fraser University in order to study the acoustic environment and the impact of technology on the sounds of the
environment.\textsuperscript{184} The major outcomes of the World Soundscape Project were the birth of the field of Acoustic Ecology,\textsuperscript{185} or the study of the sounds of the environment in relation to society, and the new recorded musical genre of soundscape composition.\textsuperscript{186}

Schafer codified many of the distinguishing features of Acoustic Ecology in his book \textit{The Tuning of the World}\textsuperscript{187} including terms such as “keynotes,” “sound signals,” and “soundmarks” that denote sounds that have special meaning for their location and the human communities around them.\textsuperscript{188} Schafer defines the soundscape as “the sonic environment. . . technically, any portion of the sonic regarded as a field of study. . . [including] actual environments, or abstract constructions such as compositions and tape montages.”\textsuperscript{189} According to Schafer, we should regard the soundscape of the world “as a huge musical composition” of which we are “simultaneously its audience, its performers, and its composers.”\textsuperscript{190}

\textsuperscript{189} Schafer, \textit{The Tuning of the World}, 274.
\textsuperscript{190} Ibid., 205.
One of the main arguments of Acoustic Ecology is to reduce the ever-increasing level of noise in cities that threatens to eliminate the “keynotes” and “soundmarks” of the world through the proposed practice of Acoustic Design. 191 This anti-noise 192 environmental agenda at the heart of Schaefer’s Acoustic Ecology has affected the definition and practices of soundscape composition in a significant way.

Schaefer calls listening to a recorded soundscape (or field recording) a “schizophonia” that “separates a sound from its original context.” 193 This is because, for Schaefer, to remove a sound from its original context—what Smalley calls “transcontextuality”—is to alter the soundscape in an unsettling way. Schaefer’s perspective on the indicative environment-field 194 of a work is that it should only take place in the acoustic soundscape—not mediated via the recording medium. Schaefer’s work is unique in that it uses the audio reality effect to evoke a listener’s experience of outdoor performance environments by actually performing music in the wild rather than making a field recording or video recording of the environment. Schaefer is one of the few composers to utilize the audio reality effect in solely acoustic music through site-specific composition and performance—using acoustic space as a trigger of the audio reality effect.

Other composers from the World Soundscape Project, such as Hildegard

191 Ibid., 181-245.
192 Noise is defined as “unwanted sound.” Ibid., 273.
193 Ibid., 88.
194 See 4.2.4, “Indicative fields and the questioning of the stability of reality.”
Westerkamp and Barry Truax, have little problem separating a recorded sound from its original context and have built an entire genre of electroacoustic music on soundscape recordings. Both Truax and Westerkamp are vitally important as writers and practitioners in the soundscape genre of composition and have published numerous albums, pieces, books, and scholarly articles on the subject. Truax defines soundscape composition as a recorded composition in which “the original sounds must stay recognisable and the listener’s contextual and symbolic associations [with the original context are] invoked.” As opposed to acousmatic music, where the sources of sounds are deliberately hidden, or musique concrète, where recorded sounds are used as sonic objects divorced from their original context, Truax’s soundscape composition must use recordings of a specified and recognizable context.

Despite these conceptual divisions between the electroacoustic categories of musique concrète, scousmatic music, and soundscape composition, scholars and composers such as Ambrose Field have nonetheless argued that these distinctions may be less important than the way each genre evokes everyday reality:

Electroacoustic music is uniquely powerful in this respect – reality can be directly alluded to, represented or subverted by the composer. The representation of reality [mimesis] is now a compositional parameter that can be found at the heart of many contemporary electroacoustic approaches, be they acousmatic, soundscape/ecological, or even musique concrète. There

is no longer any need for composers or listeners to ignore the extramusical connotations of electroacoustic sounds.196

The “representation of reality,” or mimesis, is now “at the heart of many electroacoustic approaches.” Rather than continuing to ignore the possible extramusical connotations of recorded sounds, Field encourages composers in every electroacoustic genre to examine how they are representing reality.

Whereas electroacoustic music was historically divided into the categories of *musique concrète* and *elektronische musik* on the basis of whether the sounds used in a given piece were generated by recording real-world and musical sounds or by using sound synthesis tools, the genre divisions of electroacoustic music are now much less clear, including a blurring between acousmatic and live electronic music.197 While soundscape composition and Luc Ferrari’s earlier “anecdotal music” are important in that they introduced the use of high-definition and relatively unedited field recordings into musical practice,198 and even created a genre for this to happen, the state of current electroacoustic music practice is one that often “alludes to,” “represents,” or “subverts” reality in a flexible and genre-bending way.

198 As opposed to individual pieces before the 1960s that utilize field recordings such as the symphonic poem *Pini di Roma* by Ottorino Respighi (1924), both anecdotal music and soundscape composition are prolonged musical and theoretical investigations into the use of field recordings in musical practice.
Mimetic artistic practices are now at the heart of much electroacoustic music, and soundscape composition is one of the most explicit ways that reality is evoked and represented in current music. Truax’s writing on the subject reveals the implicit “truth-telling” aspect of ecology to be a parallel with the “truth-telling” of 19th-century literary realism and reveals how the environmental agenda at the heart of Acoustic Ecology affects the theory behind Soundscape composition.

4.1.2 Soundscape practices and audio mimesis

According to Truax, soundscape composition must maintain a “neutral, plausible representation” of the recorded environment, preferably by taking walks in the recorded environment before recording in order to judge what is a “reasonable” representation of the environment. As we have observed in mimetic thought in multiple artistic media from Aristotle to Barthes, effective mimesis is contingent on the social conventions of representation in a given era.

Therefore, while Truax defines soundscape composition as one possible musical approach to evoking reality, it is clear from this study of mimesis that the "reasonable representation" of a given soundscape is based on the assumed conventions of representation of the current day. There is, in fact, no “neutral” representation of a recorded environment—this is the same argument that Adorno

199 Truax, “Sound Listening and Place,” 7.
and others made against the implicit truth-telling of realist literature of the 19th-century. The simple recording and diffusion of a field recording communicates one’s value system as well as a perspective on what constitutes reality; in the case of soundscape composition, this value system is a critique of post-industrial society in favor of naturalism and compositional “neutrality.”

However, in a different set of criteria for soundscape composition, Truax softens his stance on the level of neutrality that is acceptable for the genre. Specifically, Truax describes how it is possible for the “transformation of environmental sounds to come into play, with an inevitable increase in abstraction” with the intent to “reveal a level of signification inherent within the sound. . . without obliterating the sound’s recognizability.” This means that, as a major theorist and practitioner of soundscape composition, Truax now considers more “abstract” compositions that utilize field recordings to be Soundscape compositions as long as they don’t “obliterate[e] the sound’s recognizability.”

The question of soundscape composition as a genre then becomes: is it even possible to “re-integrat[e] the listener with the environment in a balanced ecological relationship” through a musical composition? Certainly listening to field recordings of any place can “enhance our understanding of the world. . . and [influence our] everyday perceptual habits,” but this is different than an attempt to

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201 See 2.2.1, “Realism in literature.”
rebalance the listener’s relationship with a given ecology. Despite the contributions of soundscape composition to artistic practices of mimesis in music, the ideological environmental perspective of Acoustic Ecology and the attempt to be “neutral” at a technical or aesthetic level in soundscape composition are problematic in light of the history of mimesis in the arts.

A field recording is not necessarily a mere documentary of its recorded context because it contains a network of open and ambiguous meanings that may be understood in a variety of ways by different listeners based on their personal history, level of familiarity with the source context, and familiarity with sonic arts in general.\textsuperscript{204}

Truax situates soundscape composition within a continuum of practices relating to the evocation of reality: “Sonification <_____> Phonography <_____> Virtual Soundscapes.”\textsuperscript{205} Truax’s continuum ranges from data sonification at one end, or “art in service of science,”\textsuperscript{206} to recognizable soundscapes, then to abstracted soundscapes, and to imaginary or virtual soundscapes at the other end. Truax argues that any manipulation of field recordings beyond “transparent editing or mixing” causes a given work to move from that of a documentary to that of an “abstracted” representation of the real.\textsuperscript{207}

\textsuperscript{204} Field, “Simulation and reality: the new sonic objects,” 42.
\textsuperscript{207} Ibid., 5.
Phonography, the most mimetically “real” possibility of electroacoustic music, is defined by John Lavack Drever as “the notion of ‘sonic photography’ . . . hand in hand with the action of writing or inscribing with sound.” That is, phonography is time-based sonic photography that inscribes sounds into a recording. Some artists, such as Francisco Lopez and John L. Drever, explore the ontological and perceptual implications of phonography in their compositional practice in a very focused way. John Young and Trevor Wishart agree that the recognition of source or context increases the sense of realism, which I have identified as the audio reality effect.

Truax and Young agree that an “abstract” sound is one “for which we can surmise no source-cause context or background,” or a sound that evokes an imaginary or virtual world that is “logically impossible, and possibly interpretable as mythic.” These distinctions in how sonic content represents reality are helpful in understanding mimesis in current electroacoustic music practice, and we will further refine the proposed abstract vs. realistic dichotomy in light of Ambrose Field’s “landscape morphology” in section 4.2.2, “Mimetic categories in electroacoustic music.”

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210 See 2.2.3, “The audio reality effect.”
211 Young, “Imagining the Source,” 79.
4.2 Mimesis in Electroacoustic Music

Composers and scholars of electroacoustic music have multiple perspectives on the representation of reality in music that are useful for understanding how mimesis works in audio practice. This section refines mimetic applications and categories in Electroacoustic music using the writings of Wishart, Emmerson, Risset, Young, and Field.

4.2.1 Lattice structure vs. sonic continuum

Trevor Wishart, in his book On Sonic Art, argues against the musical paradigm of pitch and duration as the optimal vehicle for musical thought.\(^{213}\) Since discrete pitches are “idealizations of acoustic reality” that are, in fact, “sounds in their infinite variety of possible frequency, spectrum, timbre, dynamic-envelope, and change,” the infinite possibilities of the acoustic reality of sounds are simply not notatable.\(^{214}\) Moreover, Western music notation “imposes a finite state logic” on frequency and time, thus forcing sounds into a “two-dimensional lattice” that can only approximate the true acoustic reality of sounds.

\(^{214}\) Ibid., 23.
Rather than a so-called “lattice structure” of possible notated pitches and rhythms that are easily codified in writing, Wishart argues for the relevance of the entire continuum of possible sounds for music.\textsuperscript{216} By the continuum of sounds, Wishart is referring the infinite set of possibilities of sound in time. Wishart’s distinction of how music notation imposes a quantifiable lattice on a continuum of sonic possibilities points out both the insufficiency of notation to represent acoustic reality and the fact that music notation is, in itself, not neutral but prioritizes sonic parameters that are easily categorized. For example, traditional Western notation offers basically no information regarding timbre, since it is quite complex to represent for multiple instruments in time. Traditional musical notation doesn’t

\textsuperscript{215} Ibid., 25, figure 2.4a.
\textsuperscript{216} Wishart, \textit{On Sonic Art}, 23.
concern actual sounds as in the real world, but rather seeks to construct a separate system of sound categorization for formalized artistic construction. Smalley describes the form of listening cultivated by the lattice structure: “The listener’s rewards lay in discovering how this archetypal indicative framework would be fleshed out by the composer’s manipulation of the pitch-rhythm system, revealed through performance-gesture and performance-utterance.”

To some scholars, “musical notation can appear to project something more permanent and ‘real’ than the direct, but fleeting, experiences of the sound of a musical performance.” This means that the score of a given piece is not actually the essence of the work but is a mimetic representation of an idealized performance reality of the piece. Scores themselves are simulacra of a proposed acoustic reality. The mimetic nature of scores is unfortunately beyond the scope of this study. However, this is an interesting topic for future research.

Wishart’s acknowledgement of this mimetic reality at the heart of music composition—and his emphasis on using recorded sounds of the everyday—sets him apart from composers such as Pierre Boulez, to which “the noises of everyday life... [break] up the dialectic of form and morphology” that are essential for the relation of micro-structure to macro-structure. The incompatibility of the continuum of everyday sounds with the highly rigorous compositional manipulation

\[\text{\small 217 Denis Smalley, “The listening imagination: Listening in the electroacoustic era,”}
\text{\small 218 Ibid., 39.}
\text{\small 219 Pierre Boulez, \textit{Boulez on Music Today} (London: Faber and Faber, 1971), 22-23.}\]
of the “lattice-structure” in the European-modernist musical tradition explains the controversy surrounding the use of field recordings in the 1960s. For example, Luc Ferrari’s falling out with Pierre Schaeffer over his “anecdotal music” that failed to translate field recordings into “sonic objects.”

Wishart’s ideas on the figurative vs. the abstract in music—somewhat akin to the realistic vs. abstract dichotomy proposed by Traux and Young or the abstract vs. programmatic dichotomy proposed by Liszt—addresses the evolution of mimetic techniques in music as opposed to visual art:

> It is interesting to note that the impact of technology on music and painting has been in opposite directions: the tape recorder has introduced the representational more easily into music, while the camera has tended to replace the figurative role of painting and allow painting to pursue the non-figurative domain.

Indeed, high definition audio recording has significantly increased the capacity of music to convincingly imitate reality, thus enabling music to be representational in a completely different way than through instrumental performance of notated pieces. The introduction of the tape recorder in the early 20th century opened up Weiss’ audio mimetic category of “concrete/hyperreal/evocative,” or a representation of reality that has the capacity

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to utilize the audio reality effect.\textsuperscript{223} In contrast, literature and painting had the realist capacity to “figuratively” represent reality hundreds of years earlier.

In Wishart’s discussion of “Sound Landscape,” by which he means “the source from which we imagine the sounds to come”\textsuperscript{224} or what Smalley calls “transcontextuality,” Wishart identifies that the recognition of “sound-sources recorded directly from the acoustic environment” is not necessarily straightforward.\textsuperscript{225} One issue is that when we perceive sounds in everyday life, we usually use visual and other context clues in order to identify the source and quality of a sound. Listening to a given sound on loudspeakers with no visual context is enough to confuse us regarding the source of the sound; this problem can be amplified by placing everyday sounds in an imaginary sonic space or collage.\textsuperscript{226}

Problems of source recognition such as “contextualization,” the “surrealism effect,” masking, and others\textsuperscript{227} may be related to Baudrillard’s theory of the “non-resemblance of objects” applied to the sonic realm.\textsuperscript{228} That is, when recorded and played back, a sound may not resemble itself as it is in everyday reality. Simply changing the context of a sound, even if it is sonically completely identical, changes our perception of the sound—perhaps by changing the sound from an original to a simulacrum. However, issues with source recognition could also stem from the

\textsuperscript{223} See 2.1.3, “Weiss’ categories of audio mimesis,” 2.2.2, “The reality effect in literature,” and 2.2.3, “The audio reality effect,”
\textsuperscript{224} Wishart, \textit{On Sonic Art}, 136.
\textsuperscript{225} Ibid., 149.
\textsuperscript{226} Ibid., 150.
\textsuperscript{227} Ibid., 149-152.
\textsuperscript{228} See 2.2.3 “Baudrillard, hyperreality, and simulacra.”
techniques and equipment used to capture the sound; using a close mic perspective when recording a sound can create “a sense of entering into the inner details of the sound-world” rather than perceiving a sound as in its original context.\textsuperscript{229}

Regardless of our understanding of the issues surrounding source recognition (and the audio reality effect), it is clear that the mimetic strength of audio recordings has the capacity to alter our perception of reality and create “abstracted” and “imaginary” soundscapes. The hybrid approach of using field recordings, processed field recordings, and synthetic materials creates sonic simulacra that represent reality in a multiplicity of ways. Wishart explores the possibilities of sonic metaphor through the transformation of sounds;\textsuperscript{230} Truax explores the potential of altered soundscapes to evoke myth and imaginary landscapes;\textsuperscript{231} and Risset uses synthesis and filtering techniques to achieve hyperreality (or the inability to distinguish between the original and imitations of it) between field recordings and synthetic materials.\textsuperscript{232} I utilize this hybrid approach in the Landscape series, as explicated in chapter 5.

Wishart’s approach in Red Bird concerning the “opposition between open and closed conceptions of the world” using sonic transformation and metaphor parallels the realist technique of painter Francisco de Goya in The Third of May, 1808.

\textsuperscript{229} Ibid., 159.
\textsuperscript{230} Ibid., 163-164.
Specifically, Goya’s painting acts as a summary of the human drama of an execution using multiple time states similarly to how Wishart uses the combination of synthetic and vocal materials to make a point concerning the abuse of power from a closed conception of the world. Both Goya and Wishart make truth statements concerning humankind through the mimetic capacities of their artistic medium.

4.2.2 Mimetic categories in Electroacoustic music

Multiple writers have proposed categories for mimesis in electroacoustic music. Wishart specified the “real-objects/real-space,” “unreal-objects/real space,” “real-objects/unreal-space,” and “unreal-objects/unreal-space” varieties of imaginary “Sound Landscapes.”233 Truax gave the continuum of “Sonification <-> Phonography <-> Virtual Soundscapes” for the representation of reality in recorded media.234

Furthermore, Emmerson proposes a “Language Grid” using the dichotomies of “abstract” vs. “abstracted” syntax and “aural” vs. “mimetic” discourse.235 By syntax, Emmerson is referring to the way that the composer arranges material—meaning that material can either be arranged in an “abstract” way such as by using mathematical models or other systems (as in Boulez or Stockhausen) or by using an

233 Wishart, On Sonic Art, 146-147.
“abstracted,” intuitive approach. By “aural” discourse, Emmerson means basically the same as the classic “abstract/absolute” musical category and by “mimetic” discourse, Emmerson means music that makes use of materials derived from everyday sounds. In essence, Emmerson creates a grid that encompasses the continuum of compositional approaches from “abstract” to “programmatic” and from “intuitive” to “systematic” using more precise terminology.

Example 4.2: Fischman’s graph of Emmerson’s Language Grid

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Example 4.3: The real-unreal continuum

<table>
<thead>
<tr>
<th></th>
<th>Truax</th>
<th>Wishart</th>
<th>Fischman</th>
<th>Field</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>sonification</td>
<td>real-objects/real-space</td>
<td>unreal-objects/unreal-space</td>
<td>real</td>
</tr>
<tr>
<td></td>
<td>phonography</td>
<td>real-objects/real space</td>
<td>unreal-objects/unreal-space</td>
<td>surreal</td>
</tr>
<tr>
<td></td>
<td>virtual soundscapes</td>
<td>real-objects/unreal-space</td>
<td>unreal-objects/unreal-space</td>
<td>un-real</td>
</tr>
</tbody>
</table>

Multiple scholars have proposed terminology for mimesis in Electroacoustic music, most of which coexist without much conflict. One distinction that must be made is Field’s use of “hyperreal,” which he uses in the colloquial sense to mean “more real than real” rather than an inability to distinguish between an imitation and an original and Field’s use of “virtual,” by which he means “pure simulation.”

Field’s hyperreal and virtual do not directly correlate to Wishart’s unreal-objects/real-space and real-objects/unreal-space because Field is referring to broader mimetic results while Wishart is referring to specific compositional approaches to sound objects and contexts. Fischman’s real—surreal—un-real continuum is the most broad and all-encompassing when considering the myriad

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239 This graph is not intended to say that all these scholars ideas concerning mimesis are in harmony, but rather that they generally align along a continuum of real to unreal concerning mimesis.

possibilities of mimesis in electroacoustic music because it does not reference specific techniques or modes of perception.

Fischman has also refined Emmerson’s language grid using Smalley’s spectromorphology into a proposed analytical framework of “mimetic space.” Fischman reframes Emmerson’s “abstract” vs. “abstracted” continuum into a “phonographic-constructed” continuum that concerns how composers utilize their material while being more broad than a systematic vs. intuitive approach. Additionally, Fischman synthesizes the mimetic-aural continuum (derived from the programmatic-abstract dichotomy) with the real-unreal continuum to create a dual-axis understanding that can identify changes in mimetic mode as well as the composer’s working methodology.

Example 4.4 Fischman’s analysis graph

This analytical approach is helpful in that it can illuminate changes in mimetic artistic techniques in music that happen in time, which has not been as

essential for understanding mimetic arts that are not (necessarily) time-based such as literature and painting. All of these distinctions for electroacoustic music fall within Weiss’ categories of audio mimesis that involve “concrete” or recorded sources.\textsuperscript{242} For an application of mimetic analysis using the combined approaches of Fischman and Emmerson et al., please see 4.3 Analysis of 2 Seconds/B Minor/Wave.

4.2.3 Source recognition and the audio reality effect

Since Wishart and Truax agree that recognizing the source context of a sound increases the fidelity of realism in the use of recorded sounds, the way in which source recognition works is significant for understanding mimesis in electroacoustic music. In fact, the audio reality effect,\textsuperscript{243} or making a listener associate their own memories and tactile experiences with a recognized sound, is dependent on source recognition.

Denis Smalley, in his essay on “Spectromorphology,” identifies “source bonding” and “gestural surrogacy” as essential concepts for how source recognition works. Smalley defines “source bonding” as “the natural tendency to relate sounds to supposed sources and causes, and to relate sounds to each other because they

\textsuperscript{242} As discussed in 2.1.3, Weiss’ categories of audio mimesis encompass all music, both acoustic and electroacoustic.

\textsuperscript{243} See 2.2.3, “The audio reality effect,” and 1.2.2, “The reality effect and metonymy.”
appear to have shared or associated origins” and orders of “gestural surrogacy” as a way to parse the level of ambiguity a sound has to its cause.244

For example, Denis Smalley’s Wind Chimes245 begins with the simple sound of a struck wind chime (first order surrogacy), then proceeds directly to second-order “instrumental” use of the wind chime to create gestures and frequencies that are not possible in the physical realm, but are created through computer music processes. A mixture of first-order and second-order chime sounds gradually transitions to time-stretched sounds that could be from a wind-chime, but are not very clearly related (third-order surrogacy). By the end of the piece, the source and origin of the various sounds heard are increasingly masked, increasingly “abstract,” or unreal, inhabiting the space between third-order and remote surrogacy.

A remote surrogacy may affect the listener’s ability to correctly bond a sound to its source, thus impeding the ability of the audio reality effect to evoke their memories and real-world experiences. Gestural surrogacy, despite the fact that the concept applies to sounds made exclusively by gestures, also correlates to the real-unreal continuum. Therefore, the level of surrogacy a sound has affects source recognition, which in turn affects the representation of reality in a work on the real-unreal continuum. This graph represents surrogacy as a general concept applying to not only gestures but also environmental sounds.

245 Denis Smalley. Wind Chimes, from Impacts intérieurs, Montréal: Diffusion i Média, 1992, compact disc.
Example 4.5: Surrogacy, source recognition, the audio reality effect and the real-unreal continuum of mimetic quality

As stated earlier, recognizing the source of a sound (in first-order surrogacy) creates a mimetic sense of the real that has the capacity to evoke the memories and experiences of the listener through the reality effect. However, as a sound’s source becomes more ambiguous, the affects of the audio reality effect in the listener become more contingent. For example, in third-order gestural surrogacy, the listener is “unsure about the reality of either the source or the cause, or both.”\textsuperscript{246} If a listener is unsure about the origin of a metal-on-metal scraping sound, but still recognizes the materials themselves, they may visually imagine two pieces of metal colliding together without knowing the original context at all. If a listener doesn’t

\textsuperscript{246} Denis Smalley, “Spectromorphology: Explaining Sound-Shapes,” 112.
recognize any human agent in the context or creation of a sound (in remote surrogacy) then their reaction to the sound is completely contingent on their subjective experiences, knowledge, and familiarity. If a listener has a particular kind of mindset, they may imagine all manner of materials and contexts for the “imaginary” or unreal acousmatic environments they hear. In general, source recognition, mimetic quality, and the way the audio reality effect works are linked in electroacoustic music based on the order of surrogacy that a listener understands the sounds presented.

Composers may use sounds whose sources are easily recognized, but whose context is very unclear. Some “sounds... lack the specific contextual details that are required to associate them to particular extramusical events. For example, sounds of passing cars, birdsong and environmental ambience are so common that it is difficult to assign them to particular times or places.”\(^{247}\) This enables the listener to freely insert their own experiences with the source-bonded sounds in whatever contexts they remember. Even though sounds such as passing cars and birdsong are quite “common,” they have flexibility in their evocation of reality because of their very ubiquity.

4.2.4 Indicative fields and the questioning of the stability of reality

Denis Smalley proposed the concept of “indicative field” and “indicative network” in order to synthesize Schaeffer and Schachtel’s listening modes and to

\(^{247}\) Field, “Simulation and Reality: the New Sonic Objects,” 42.
“explain the links between human experience and the listener’s apprehension of sounding materials in musical contexts.” Smalley identifies nine indicative fields that overlap and interrelate within an indicative network: gesture, utterance, behavior, energy, motion, object/substance, environment, vision, and space. Of particular interest to mimesis in electroacoustic music are the indicative fields of environment, vision, and space.

The environment-field refers to the “incorporation of environmental sounds into music via the recording medium,” as well as the increased consideration of environmental spectro-morphologies as musical in themselves. The vision-field refers to the visual correlations that listeners may imagine when recognizing the sources of musical gestures or changes in the energy-motion-field. Although the visual aspect to an electroacoustic work may be invisible, the listener’s memories and experiences evoked through the audio reality effect may involve the visual. The space-field is particularly relevant to mimesis in music in the “affective interpretation of space” or “how the listener experiences and feels about space” in a given work. The relationship of the audio reality effect and the space-field in

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248 Smalley, “The listening imagination: Listening in the electroacoustic era,” 83.
249 Smalley, “The listening imagination: Listening in the electroacoustic era,” 82-93.
250 Interestingly, Smalley argues that electroacoustic music can “appropriate materials directly from the sounding world... [which is] neither imitation nor representation.” However, it is clear from a historical understanding of mimesis that even an identical copy of a sound or object is still not a direct appropriation of that object—what Smalley is likely referring to is the capacity of the electroacoustic medium to operate as a simulacrum.
251 Ibid., 90
252 Ibid., 90.
electroacoustic music is beyond the scope of the current study, but may be a useful topic for further research.

Smalley delineates “listening space” as the context in which a piece is listened to, whether it be public or private, and “composed space” as the original, controlled acoustic context in which a work was created.\textsuperscript{253} The listening space can be either consonant or dissonant with the composed space in listening to a given piece—a recording of an intimate piece such as Morton Feldman’s late piano work \textit{For Bunita Marcus} can be listened to on headphones in a quiet space, (a consonant relationship between composed to listening space), or played on loudspeakers in a large mall full of people shopping, (a dissonant relationship between composed and listening space). Not only is the listening context of a work significant in how a listener perceives reality in the work, but the juxtaposition of multiple spaces and soundscapes within a single work has the capacity to mimmically evoke the surreal or un-real through a complex dissonance between composed and listening space.

For example, during a screening of \textit{Backroads}, there is a moment when multiple field recordings are juxtaposed on top of each other during an abstracted driving shot. In this moment, two of the field recordings are being panned very slowly throughout the 8-channel surround sound audio field, creating a sense of subtly conflicting acoustic image trajectories, while the visual-field is moving forward (reinforced by the driving sounds of the car). A third field recording of birds

\textsuperscript{253} Ibid., 91.
has a stationary space-field that both grounds the viewer and provides another layer of environment and space conflict.

Example 4.6: Space-field and environment-field dissonance in *Backroads*²⁵⁴

![Diagram](image)

In addition to the conflicting senses of composed space, the listening space of *Backroads* is ideally in a film theatre space with surround sound—this creates another layer of dissonance as viewers are seemingly transported into their cars from a formalized performance space. The juxtaposition of multiple field recordings,

²⁵⁴ Blue lines denote sonic trajectories and black lines denote visual trajectories.
each of which has its own contextual identity, also creates a “dissonant” or multilayered environmental-field that I call a “hybrid” space.

A hybrid space is when visual or sonic information from multiple environments are juxtaposed on top of one another in a synergetic relationship—the combination of information from multiple contexts fuse together into a surreal hybrid space. The dissonant environmental-field of a hybrid space can be created through the use of projected video, unrecorded environmental sounds, instrumental sounds, and diffused field recordings of various degrees of manipulation. I have explored the creation of hybrid space in works of the nocturne series by combining the environmental sounds of the performance space with field recordings and instrumental sounds such as in nocturne series: 1 (discussed in Section 1.1.3, Mimesis in the Landscape series).

Hybrid space is an example of a surreal mimetic result in electroacoustic music through dissonance in multiple indicative fields that cause a constantly shifting indicative network. As a broader mimetic technique, this hybrid space questions the stability of reality.  

4.2.5 Transcontextuality

Smalley defines “transcontextual interpretation” as “sounds [of] cultural activity or nature” or “any recorded sound event where we are simultaneously

255 For a more detailed discussion of this mimetic trend, see 1.2.4, “The questioning of the stability of reality,” and 5.1.1, “Modularity in Landscape Series: 1.”
aware of two (or more) contexts.”

Therefore, for a piece to involve a transcontextual sound, a listener must be able to recognize its source. Smalley affirms that transcontextuality can be a “very personal and fragile affair” because it is “dependent on shared norms and meanings”—this is more broadly known as the social contract of mimesis that realist artistic techniques depend on.

However, difficulty in placing the source of a sound (or identifying its order of surrogacy) is not essential for the integrity of an electroacoustic piece. The listener does not always need to be able to “resolve” the origin of a sound in order to be affected by it. This is similar to the lack of resolution in contemporary literature such as *The Wind-up Bird* by Haruki Murakami—the fact that certain characters and plot lines simply fall out of focus can be frustrating for the reader, but these “incomplete” aspects still contribute to the tone of the novel and the characterization of the protagonist.

Ambrose Field further refines Smalley’s concept of transcontextuality using “sonic rhetoric” as a way of linking the musical processes of mimetic material with contextual information. Field argues that “transcontextuality can be used as a tool to lend old or existing contexts new meanings” through the postmodernist

257 See example 4.5 above for more about the correlation of source recognition of mimetic results.
258 Ibid., 99-100.
259 See 2.2.2, “The reality effect in literature and audio.”
technique of quotation: the juxtaposition of multiple “found objects.” Field is pointing out the possibilities of transcontextuality in both the micro-scale (with source recognition of a single sound) and in the macro-scale (of reframing old and new contexts for new meanings).

Furthermore, Field identifies “transcontextual agents” as sounds that have “clearly identifiable extramusical implications into believable real world acoustic environments.” Transcontextual agents can operate by instantly “chang[ing] the space within which they are placed” or by “revealing a new meaning for a context over time.” Sounds that use transcontextual agency are instances of the audio reality effect that transform the implications of the sounds around them.

\[\text{Ibid., 50.}\]
\[\text{Ibid., 51.}\]
\[\text{Ibid., 51-52.}\]
Example 4.7: Transcontextual agency

In this hypothetical example, a listener first hears and recognizes the sounds of a shower that evokes their tactile experiences of taking a shower. Then, a recording of a waterfall is introduced into the proposed sonic environment of the shower. At this point, the transcontextuality of the shower sounds will affect the contextual meaning of the waterfall sounds—the waterfall may sound like a filtered or abstracted variation of the shower sounds or the sense of space may radically expand from that of an interior set of water sounds to an exterior set. Furthermore, the experiences that are evoked in the listener by the shower sounds may affect the

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264 See Example 2.3 in section 2.2.2.
way the audio reality effect evokes experiences of the waterfall sound—the listener may imagine themselves transported from bathing in a shower to under a waterfall or the listener may imagine what it feels like to be under the immense amount of water in a waterfall as opposed to a gentle shower. Even if the listener doesn’t recognize the source of the waterfall sounds, the shower sounds will still affect the way one perceives the waterfall sounds and vice versa.

Following up on Baudrillard’s theory of the simulacra, Field also offers up four characteristics of a convincing simulation of reality in audio:

A simulated reality must offer all the gestures and signs of the real. A good simulation will have the same semiotic consequences as the real. It is impossible to ‘prove’ reality. The longer we perceive an acoustic environment (sound landscape), the more likely it is to be accepted as real.265

These guidelines for creating effective sonic simulacra are the basic criteria for the audio reality effect to occur. Significantly, it will be “impossible to ‘prove’ reality” for any convincing simulacrum—by definition, the effective imitation takes on a life of its own and is theoretically impossible to distinguish from its original. One useful observation refers to time: the longer the duration of a recorded environment, the “more likely it is to be accepted as real.” It is possible that this is because of the way we experience everyday reality—listening carefully to an environment for a prolonged span of time—is the primary way one can identify

265 Field, “Simulation and reality: the new sonic objects,” 44.
threats or verify the source of a sound. This perceptual norm may have originated through human evolution.\textsuperscript{266}

As a further refinement to the mimetic evocation of the real in electroacoustic music, \textcite{eldritch 2013} speaks about the use of environmental sounds (either recorded or as ambient sound in a performance space) as being potential agents to “reinvigorate [one’s] perception [of] the minor intensities of everyday life.”\textsuperscript{267} The use of field recordings emphasizes sonic material that “the tradition of Western concert music consigns to a non-conscious register of perception,” therefore potentially stimulating the listener to focus their attention on everyday sounds they usually ignore through a Cagean “model of attention.”\textsuperscript{268}

Not only does the use of mimetic material in electroacoustic music alter a listener’s perception of everyday reality, but the increased mimetic capacity of music also affects acoustic “experimental music” separate from the use of field recordings. Priest defines experimental music as “music that takes the self-conscious and deliberate confusion which is characteristic of post-Cagean aesthetics as an expressive norm.”\textsuperscript{269} Priest proposes the categories of boredom, formlessness, and nonsense as a way of understanding the way experimental composers cultivate the questioning of reality and the rigorous observation of the everyday through the use of repetition, fragmentation, very long durations, silence, and traditionally “non-

\begin{footnotes}
\item[266] Ibid., 38.
\item[267] \textcite{eldritch 2013}, 101.
\item[268] Priest, \textit{Boring formless nonsense}, 22.
\item[269] Ibid., 17.
\end{footnotes}
musical” materials such as found sounds and objects. Composers in this aesthetic utilize the same trends of mimesis in their work without necessarily using field recordings or other electronic materials.

Smalley and Field have provided a more precise understanding of the reality effect in the audio realm through their research on transcontextuality and listening paradigms. Priest helps us to understand these issues regarding acoustic music. For a solid example of how one composer has applied the concepts of transcontextuality and mimetic processes in their computer music, we will turn to Jean-Claude Risset.

4.2.6 Risset and Simulacra

Risset provides a solid technical model for implementing mimesis in his compositional work by using synthesis and filtering techniques to achieve hyperreality (or the inability to distinguish between the original and imitations of it) between field recordings and synthetic materials. Risset made use of spatialization, reverb, mixing, phasing, time reversal, resonant filtering, cross-synthesis, linear-predictive coding, and other synthesis techniques in his pieces, especially Sud, Inharmonique Invisibles, and Passages, in order to “suggest an illusory world that can appear true to perception.”

By “synthesiz[ing] simulacra, imitating by synthesis certain musical

\[\text{\footnotesize \textsuperscript{270} Ibid., 17-24.}\]
\[\text{\footnotesize \textsuperscript{272} Risset, “Real-world Sounds and Simulacra in my Computer Music,” 44.}\]
instruments or the human voice as well as other sounds - metronomes, planes, birds, wind...” Risset has a super-tight control over the quality of resulting mimesis in his work. In creating a convincing, perception-corrected copy of real-world sounds collected through field recordings, Risset can seamlessly intermingle the “real” field recordings with the also-real imitations, thus creating a hyperreal experience for the listener.

Through the sophisticated use of computer music techniques to imitate field recordings, Risset hacks into the perceptual norms of the indicative fields of space and environment to play with the listener’s sense of reality in a very subtle way. Risset attempts to “deepen our relation to reality, to explore the workings of our senses, our only windows to the world” through the combination of obviously synthetic (or “abstract” musical sounds) with obviously “real” field recordings and synthetic simulacra. In this way, Risset has unique control over where on the mimetic spectrum a given combination of materials will register in his works—a capacity to control the audio reality effect almost directly rather than implicitly. Risset’s composing and writing presents one of the most flexible and robust approaches to mimetic practice in electroacoustic music.

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273 Risset has used the findings of Albert Bregman’s Auditory Scene Analysis as a perceptual starting-point for creating simulacra.
274 Ibid., 45, italics mine.
4.3 Analysis of 2 Seconds/B Minor/Wave

2 Seconds/B Minor/Wave is a collaborative album composed by Michael Pisaro and Taku Sugimoto released in 2010 on Erstwhile Records. Pisaro is a part of the Wandelweiser international composer's group based in Dusseldorf, Germany and Sugimoto is associated with the related Onkyo music movement in Japan that concerns free improvisation and experimental music practice.

Each of the three 20:02 tracks on the album were “composed/recorded separately” by Sugimoto and Pisaro, and were then mixed by Pisaro and composer/mastering engineer Taku Unami. In each of the tracks on the album, Pisaro and Sugimoto composed separate recordings on a given theme (such as the key of B minor) and their compositions are combined in the recording. This album is a useful case-study concerning mimesis in the audio realm because it subtly combines constructed and phonographic materials into a mimetic space that slowly shifts from real to unreal through the simultaneous use of multiple modes of surrogacy and the intermingling of different environmental indicative fields.

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4.3.1 2 Seconds and spatial ambiguity

2 Seconds is a subtle combination of constructed or aural (traditionally musical) sounds such as electronic beeps and clicks, sustained sine tones, and percussive strikes that are in the “instrumental” 2nd order of gestural surrogacy with more phonographic or environmental sounds of the “physical” 1st order of surrogacy. The gradual injection of more environmental sounds into the more traditionally musical sounds reconfigures the environment-field and space-field of the piece from being one of abstract, composed space to the “real.”

The “instrumental” or aural sounds usually have a very tightly mixed and edited presence in the recording that have a contained frequency response, much like a sound that has been digitally “sampled,” whereas the more phonographic recordings are the sounds of an interior environment (perhaps Pisaro’s house and/or Sugimoto’s apartment) that, while being mixed quieter in the recording, fill the frequency spectrum more fully (as real-world sounds tend to do).
Example 4.8: Constructed and mimetic materials in 2 Seconds

Aural, Constructed “musical” sounds (2nd mode)

Environmental, Phonographic sounds (1st mode)

The beginning of the piece is dominated by the aural/constructed sounds of sine tones, metronomic beeps, electronic clicks, and what may be a guiro scrape. Combinations of these sounds are punctuated (very quietly) by the phonographic sounds, the most frequent of which is the creak of someone sitting back in a chair—possibly a recording of one of the composers sitting in their chair at home. As the piece continues, the balance between the constructed sounds and the environmental
sounds becomes slightly more balanced as the phonographic sounds are given slightly longer durations, are mixed slightly louder, and also start to include foregrounded sounds such as a door shutting twice at 4:35, a sink being turned on and off at 5:17, and a blender going off three times from 7:30-7:55.

The more these domestic sounds are brought into the foreground of the listener’s attention, the less the piece seems that it is in an “abstract” compositional space and the more the piece appears to be inside the space of a home—a domestic interior. As the sounds with 1st order surrogacy gradually come into equal prominence as the 2nd order instrumental sounds, the sense of the environment becomes more ambiguous and seems to slowly shift to a more “real” space.

Example 4.9: Transformation in 2 Seconds
The subtle interweaving of first-order sounds and second-order sounds creates a mimetic ambiguity that raises questions for the listener—what space am I actually hearing? Is this the space of Pisaro’s home, or Sugimoto’s home, or both? Which composer made which sounds? Is a given sound a musical sound or an environmental one?

The interweaving of the different surrogate orders of sounds make it quite difficult to designate one set of sounds as the transcontextual agent, to parse whether the instrumental sounds are affecting the environmental sounds or vice versa. Sugimoto and Pisaro supply only “partial aural cues” about the origins of the phonographic content, thus causing the listener to “generate their own extramusical meanings from deliberately ambiguous sonic information” in what Field calls “sonic synecdoche.”278 When the listener is forced to generate their own mimetic meanings out of ambiguous sources, the audio reality effect can come into play as the listener draws on their own experiences to make sense of the hybrid spatial information.

4.3.1 Wave: the construction and perception of space

In Wave, the left channel contains mostly tightly edited repetitions of wave recordings and the right channel contains a slowly evolving drone comprised of guitar tones made with an ebow (and possibly sine tones). The wave recordings in the left channel are all of a similar duration, and usually contain the sound of a single wave washing up to shore. Each time the wave sounds repeat, they are

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278 Field, “Simulation and reality: the new sonic objects,” 49-50
filtered in a slightly different way. In the left channel, there are also more prolonged sustained sounds, presumably made by filtering noise content through tuned filters with a very tight quality control.

The isolation of the wave sounds onto the left channel (and mostly noise sounds with a few sustained pitched) and the pitched drone in the right channel creates a sense of a hybrid space-field, one where 2nd order instrumental sounds create an “abstract” composed-space on the right while the processed and edited wave sounds create a virtual phonographic environment on the left. Over the course of the piece, the pitched drones in the right channel begin to infiltrate into the left channel, creating an ambiguous interplay of phonographic and constructed space that unfolds throughout the piece.

Example 4.10: A spectrogram view of *Wave*
The increased repetitions and overlapping of the filtered wave sounds (climaxing at 13:00-18:00) in the piece evoke an environment that grows gradually more un-real. For one, the editing of the wave into a very tight singular sound is not the way one perceives the sounds of the ocean in everyday life; so from the first hearing of the wave at the beginning of the piece, it is clear that this is not the wave of a true “reality.” However, the repetition of the wave sounds with slightly different frequency combinations does evoke the way one perceives wave sounds in everyday life—the sounds of the ocean change in frequency content depending on your distance from the water, the way the sounds filter through buildings or objects, etc. Therefore, the repetition of the waves juxtaposed against a drone becomes a meditative experience that evokes an increasing sense of the surreal, and even the un-real based on the listener’s imagination.
Example 4.11: The changing mimetic implications of wave sounds in *Wave*

Pisaro and Sugimoto achieve rich mimetic results from an economy of sonic and compositional means. The juxtaposition of sound sources with different orders of surrogacy and the intermingling of different qualities of environment and spatial indicative fields create subtly changing evocations of reality that challenge the listener to find their own extramusical meanings for the phonographic content in the work. Using the analytical frameworks concerning mimesis in electroacoustic music, Chapter 5 examines the techniques, aesthetics, and mimetic results of works in the *Landscape* series.
CHAPTER 5
MIMETIC STRATEGIES IN THE LANDSCAPE SERIES

5.1 Techniques, Aesthetics and Multimedia Counterpoint

This chapter concludes the study of mimesis in music by connecting the analytic framework of the audio reality effect, the real-unreal continuum, Emmerson’s language grid, and the three main practices of realism to pieces in the Landscape series. In particular, this chapter examines how I have implemented mimetic techniques in the Landscape series through my working process as well as my aesthetic and technical goals.

5.1.1 Modularity in Landscape Series: 1

Composers have created modular works whose sections can be combined in performance for some years. For example, Stockhausen’s Mikrophonie I contains rules for the order of the sections of the piece to be chosen for performance.\(^{279}\) Dieter Schnebel’s glossolalie is a “a set of conceptual modules” that have been realized in different pieces such as Glossolalie 61,\(^ {280}\) John Cage’s Song Books may be combined with his Rozart Mix and Concert for Piano and Orchestra since they are all


“indeterminate music,”281 and Joseph Klein’s *An Unaware Cosmos* is a modular work for mixed chamber ensembles whose arrangement “is intended to explore a variety of relationships—timbral, spatial, conceptual, structural—both within and between modules.”282 A slight variation in the implementation of modularity, Earle Brown’s *Available Forms I* consists of six pages with 4 to 5 sonic events each that are cued by the conductor, who creates the piece in real-time by combining the events of the piece in a way to their liking.283

My own approach to modularity is to compose pieces in the same series with a consistency of mimetic approach so as to create a sense of unity within the series, whether the pieces are performed as individual works or freely combined. From my perspective, the pitfall of composing modular works is the possibility that a set of pieces will work well together, but won’t be able to sustain an audience’s interest in a stand-alone performance of an individual piece. My technical goal in each piece is to use mimetic unity to strengthen the connectedness of pieces in the series so that I can focus on separate compositional issues distinct to each work.

The *Landscape* series concerns the translation of the notion of landscape from that of a two-dimensional static image (as in 19-century landscape painting) into a multiplicity of environmental experiences created by combining field

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recordings, acoustic instrumental composition, and video in a live multi-media performance context. Despite the instrumentation of a given piece in the Landscape series, my technical goal is to mimetically evoke a similar experience of a landscape in each instance. For example, in Landscape: Trombone Quartet I composed an antiphonal series of slowly changing microtonal harmonies to create a sense of drone in order to evoke the experience of highway hypnosis. This piece attempts to translate the typical Texas experience of driving through a vast, seemingly endless landscape into acoustic chamber music.

Example 5.1: Landscape: Trombone Quartet, p. 2
To be more specific, the mimetic device at work in *Landscape: Trombone Quartet* is to incorporate sounds of a 2nd order surrogacy, used in a “constructed” or “aural” methodology, to create a sense of resulting mimesis that causes the audience to associate the sounds with their memories and experiences of driving long distances. Any experience of the reality that the audience has will be surreal or un-real by definition, since the mimesis is mediated through instrumental sounds rather than by audio or video recordings. In this way, *Landscape: Trombone Quartet* strives toward the mimetically surreal from a completely aural methodology.

Example 5.2: Mimetic results in *Landscape: Trombone Quartet* (and *Landscape: Clarinet Trio*).

The result of a unified mimetic approach in the *Landscape* series is that I can freely combine *Landscape: Trombone Quartet* with any other work in the series and
their juxtaposition will only seek to amplify the mimetic results rather than obscure each piece’s individual constructions. For example, at 48:00 of Landscape Series: 1, Landscape: Trombone Quartet is juxtaposed with a passage from Backroads.

Example 5.3: Landscape Series: 1, score excerpt

In this case, the visual driving footage and multiple field recordings of Backroads create multiple conflicting environmental indicative fields that give a sense of hybrid space. This hybrid space, when juxtaposed against a driving drone in Landscape: Trombone Quartet, amplifies the sense of a surreal landscape perceived from the perspective of a driver’s seat.
In general, I find that the combination of acoustic instrumental music with field recordings and video pieces to be the most effective way to create a compelling representation of reality and activate the audio reality effect in the listener. My overall goal in *Landscape Series: 1* is to change “the ratio between the senses”284 of the audience—to evoke a subtle, yet radical transformation in the perception of the listener through the juxtaposition of multiple media with a unified mimetic technique. Hopefully, someone viewing *Landscape Series: 1* is re-sensitized to “the minor intensities of everyday life”285 such as driving at night and finds their everyday experiences to be reinvigorated through the audio reality effect. By juxtaposing sounds associated with western concert music with environmental sounds (of the mundane), I hope to sensitize the audience to the expressive potential of the sounds of everyday life that they usually ignore.

5.1.2 Video techniques in *Landscape: Graz*

In her essay, “The Framed Landscape,” geographer Hildegard Binder Johnson articulates how landscape art needs a human perspective to exist:

Landscape per se does not exist; it is amorphous—an indeterminate area of the earth’s surface and a chaos of details incomprehensible to the perceptual system. A landscape requires selective viewing and a frame. The ‘line’ of a mountain crest, woods, or prairie silhouetted against the sky is imaginary; it lies in the eye of the beholder. Landscapes need... the subjectivation of nature.286

Nature needs a frame in order to be turned into a piece of landscape art. Johnson argues that landscapes require mediation through subjective mediation, the perspective and editorial touch of an artist. My aesthetic goal in *Landscape: Graz* was to use the same video techniques in *Backroads* to create twenty 3-minute landscape pieces with video recordings and audio field recordings of Graz, Austria, as well as music created in collaboration with koto player Miyama Tokita-McQueen. *Landscape: Graz* was made as a part of Peter Ablingerb’s *Composition Beyond Music* workshop during the Impuls festival in Graz.287

My process for creating the videos of *Landscape: Graz* was to make field recordings and video recordings around the city and then layer them using filtering techniques in Adobe Premiere Pro and Adobe Audition. I shot the video content with a GoPro camera,288 a portable camera designed for use by athletes, using a variety of techniques—e.g., mounting the camera on inside of a tram-window and filming the passing view of the city, holding the camera at my waist pointing forward while walking through the city, and others.

Example 5.4: A GoPro camera and the tram in Graz

After shooting my video content, I overlaid multiple shots in Adobe Premiere Pro and filtered them through one another using the “difference” mode of blending. This mode of blending “subtracts the darker of the input values from the other,” and also “inverts [white] background color” into black. By color-correcting the images to contain only black and white then overlaying those images using the difference blend mode, an amalgam of the two images is created by filtering the first shot through the second. When using relatively rich images, this creates surreal combinations of landscape materials.

Example 5.5: Layering and filtering in *Landscape: Graz*, video f and video a

The contrasting motion of the juxtaposed perspectives creates a sense of a hybrid environment-field. That is, the motion and imagery of the separate shots that
are layers on top of one another create a plural sense of space—the indicative field of the environment encompasses multiple simultaneous spaces into a single hybrid. This layering of space, both sonically and visually, is an artistic concept that warrants further creative and scholarly research. Interestingly, the same layering and filtering techniques were used in Backroads, but they achieve a significantly more complex visual result in Landscape: Graz. Because the visual content of driving through back-country roads in Texas is in stark contrast to traveling through a major metropolitan area, the results of the same process are quite different.

As the audience recognizes the images as traveling through a city in some kind of vehicle, this association creates the potential for the (visual) reality effect to evoke the audience’s experiences and memories of traveling through cities and imposes those memories onto their experience of the work. The combination of layered video and field recordings tends toward an unreal or surreal mimetic result rather than a “real” representation of reality—a result that questions the stability of reality in its creation of a simulacrum.
5.1.3 Microtonality in *Landscape: Clarinet Trio*

As with *Landscape: Trombone Quartet* and *Landscape: Texas Plains*, *Landscape: Clarinet Trio* is composed of microtonally shifting drones as a way to evoke highway hypnosis. However, what is unique to *Landscape: Clarinet Trio* (and sections of *Landscape: Texas Plains*) is the focus on the variation of acoustic beating patterns as the driving compositional parameter of the work.

The technical goal in each of the acoustic works of the *Landscape* series was to develop techniques for composing microtonally for each instrumental group up to 11 discrete pitches per minor-second—a given pitch -50 cents, -33 cents, -31 cents, -14 cents, -4 cents, +2 cents, +4 cents, +14 cents, +31 cents, +33 cents, and +50 cents. In the case of *Landscape: Clarinet Trio*, the development of microtonal fingerings for each microtonal deviation from equal temperament was a significant task that had
to be completed twice—once by working with clarinetist Connor O’Meara during the composition process in order to generate useful fingerings as a starting point, and again by the three clarinetists during rehearsals to adapt the given fingerings to their own playing techniques and instruments.

Example 5.7: Landscape: Clarinet Trio, score p. 1
The waveforms at the top of the score represent the beating patterns created by the combinations of the given tones, which are intended as a guideline for tuning for the performers. The pitches of *Landscape: Clarinet Trio* were composed by the gradual expansion of a 67-cent interval on p. 1 (between concert A and concert Ab +33 cents) to a 300-cent interval on p. 15 (a minor-third between concert Bb and concert G) that gradually contracts to a 200-cent interval on p. 24 (a minor-second between concert A +50 cents and concert Ab -50 cents). This basic expansion and contraction of the tessitura was the bandwidth that I restricted myself to when choosing the various resulting pitches and intervals—an intuitive process I completed by manipulating long-tone clarinet samples of the microtonal pitches recorded with O’Meara in Pro Tools.

The aesthetic goal of *Landscape: Clarinet Trio* is the same as that of *Landscape: Trombone Quartet*: to incorporate sounds of a 2nd order surrogacy, used in a “constructed” or “aural” methodology, in order to create a sense of resulting mimesis that causes the audience to associate the sounds with their memories and experiences of driving long distances. However, *Landscape: Clarinet Trio* operates with a sense of space unique to the pieces in the *Landscape* series—an immense sense of space and duration with an intimate sonic perspective. The listener is “drawn into the sound-field” of an “imagined environment beyond the immediate walls” through the “immense” material of a continuous drone. 291 The music itself is “psychically close” due to the warmth of the clarinet’s timbre in the low register, and

291 Smalley, “The listening imagination: Listening in the electroacoustic era,” 92.
yet the ceaselessness of the drone evokes a larger sense of scale that attempts to lull the listener into a state similar to highway hypnosis.

In essence, my goal of representing reality in the Landscape series is to create the feeling in the audience of being in my own head during a long drive—traveling through a vast, visually hypnotic landscape while imagined (or hallucinated?) instrumental sounds develop alongside the images. The capacity of mimesis for musical and multimedia practice has yet to be fully explored, but by coming to an understanding of the history of mimesis in the arts—and the three basic trends of realism, including the audio reality effect—artists may have greater theoretical and practical control over mimetic techniques.

5.2 Conclusion

Mimesis is crucial concept to understanding different modes of representation in the history of the arts. In particular, the main trends of the realistic mode of representation—the rigorous observation of reality, the questioning of the stability of reality, and the reality effect—are useful for understanding technical and aesthetic developments in the history of the arts. In the current state of the arts, there is a fruitful and open-ended opportunity for further creative and scholarly research regarding mimesis. In my own work, I am driven to seek analogues and translations of the rich history of mimetic operations and powerful storytelling procedures in literature and visual arts in current musical and
multimedia art practice. One such implementation of mimesis to current materials and media is biographical multimedia pieces.

5.2.1 Biographical works

Another branch of mimetic art that warrants future creative and scholarly research is that of biographical multimedia arts. One example of a biographical work could be the combination of video, audio recordings, and sculptural objects into an interactive self-portrait installation. Similar to Convulsions, the work for clarinet, video and electronics commissioned by Nathan Beaty, the use mimetic materials in multiple artistic media has the capacity to illustrate an autobiographical/personal experience through the reality effect. The use of mimetic devices in multiple media can evoke and force the audience to enter into another person’s experience in a very tangible way (due to the immersive nature of projected film/video and audio recordings). Personal, or biographical multimedia works can be a vivid artistic account of someone else’s life and experience by using cutting-edge technology applied to a mimetic end.

This mimetic genre has political and social ramifications as a sort of journalistic truth-telling procedure. For example, it is not a given that the typical new music or contemporary art audience has any true experience of what it tangibly means to live in poverty. A biographical work that uses mimesis could utilize the reality effect to forcefully push the audience to engage the way of life of an impoverished individual through the perceptual weight of the reality effect. The
power of mimesis to illuminate social reality is similar to the power of documentary film, but would function differently since multimedia works do not have to function using the conventions and tropes of narrative film, but can develop their own traditions based on the mimetic history of the media involved.

Mimesis used in multimedia doesn’t have to solely concern the idea of landscape and the human perception of landscape, but may also address our perceptions of one another individually and in society. Similar to the novel’s capacity to familiarize the reader with the inner thoughts and experiences of its characters through the lens of the novelist's words, biographical multimedia has the capacity through mimetic devices (described via the real-unreal continuum, modes of surrogacy, mimetic vs. aural discourse, and the reality effect) to communicate the human experience in a very engaging and relatively untapped way.

It could be extremely beneficial for artists of underrepresented and marginalized ethnic and economic backgrounds to utilize mimetic techniques to not only share about their experiences, but to encourage audiences to enter into their life in a tangible way. Perhaps this artistic work could be another vehicle for building awareness and galvanizing change in the social realm through a shared experience of reality. Mimetic art has always possessed the capacity to build empathy—is it possible for this empathy to build towards meaningful advocacy on important social issues?
5.2.1 Future Works

In my personal artistic works, I will continue to explore the possibilities of landscape compositions using mimetic techniques in multiple media. I am also developing the concept of "portrait pieces" that use similar mimetic devices to evoke biographical experiences. One future work that will utilize mimesis is a biographical work for clarinet, video and electronics commissioned by clarinetist Nathan Beaty—with the working title Convulsions—that is intended to illustrate the sensation of having an epileptic seizure. Beaty, as a man who suffers from epilepsy, wants this piece to communicate the strange out-of-body sensation of having a seizure, "the general goal [being] to get across as much as possible the nature of events as they unfold before, during, and after a seizure."\(^{292}\) This includes the loss of physical sensation and slipping into unconsciousness before having a seizure as well as the gradual return to consciousness (and reality) when waking up from the seizure.

Regarding mimesis, I plan to evoke the trajectory of losing control of one's body and returning to consciousness by starting the video and fixed electronic content of the work in the mimetically "real" by using video and audio recordings of everyday sounds—students walking through campus, the sounds of conversation in a coffee shop, the images of traffic—and then transitioning to a surreal and/or unreal mimetic result through increasing abstraction and incongruity in the sonic and visual elements included. I intend to evoke the sensation of losing control over

\(^{292}\) Nathan Beaty, Facebook message to the author, January 13, 2016.
your own body by juxtaposing sounds from more and more disparate contexts onto a combination of quotidian and abstracted images in an increasingly intense way.

By creating the perception of a hybrid space/environment, I intend to maintain a link to the recognizable, “realistic” material while evoking the disturbance of a seizure. Overall, the progression of losing control over one’s body, to unconsciousness during a seizure, to waking back up will be fleshed out by a progression from the mimetically “real” to “un-real” and back to “real” again using the combination of recorded sounds and video images.

Example 5.8: Mimesis in illustrating a seizure

Interestingly, this mimetic progression and regression can be accomplished through the use of only two of the three media available in the piece. In addition, the
composition for acoustic clarinet will work in counterpoint to this structure of moving from mimetic to aural (and back) that forms the backbone of the work for the video and electronics. A subject for further creative research, and one that I will explore in this work, is attempting to create multiple trajectories along the real-unreal continuum using multiple media within the same span of time. I am curious what the minimum duration and amount of sonic/visual information is needed to effectively evoke the reality effect in the audience while adding increased complexity of layered mimetic material.

Another subject of creative inquiry is whether one can use sounds of second-order surrogacy such as the live-performance of instruments to create a convincing “real” mimetic result; whether sounds made in the Emmerson’s “aural” or constructed discourse have the capacity to operate in a mimetic fashion, and thus utilize the audio reality effect. One attempt to achieve this was Peter Ablinger’s Quadraturen (“Squarings”) cycle of installation-, electroacoustic-, and concert-pieces. The basic principle of Ablinger’s works in this cycle are to take a phonograph of any everyday sort of sound, to “dissolve [the recording] into a grid of small ‘squares’” determined by bit-depth, and to use the resulting time/frequency grid as the score for various instrumental/electronic media.²⁹³

The overall mimetic result of Ablinger’s work is the “reproduction of ‘phonographs’ by instruments... [similar to] photo-realist painting” but with the

overall goal not of “literal reproduction” but rather an exploration of the border-zone between phonography and musical structure, “the observation of ‘reality’ via ‘music.’”²⁹⁴ In this way, Ablinger doesn’t seek to create a mimetic real using sounds of second-order surrogacy, but rather seeks to raise the question of its very possibility. In listening to the works in the Quadraturen series, the “grid” or “squares” that measure the phonographic recording are in some ways more audible in instrumental performance than the sonic content of the recording itself. Synchronizing the instrumental performance of the “score” with the original phonographic recording, as with Quadraturen IV “Selfportrait with Berlin” for ensemble and CD, creates a more convincing mimetic result by layering the phonographic with sounds of second-order surrogacy because the listener can compare the sonic information between one medium and another in real time. Ablinger describes instrumental music’s ability to realize a phonograph as “a very rough scanner which hobbles far behind the complexity of reality.” Despite sounds of second-order surrogacy’s relative ineffectiveness in mimesis according to Ablinger, “such hobbling reflects the truth of the observation process as well as being an aesthetic phenomenon in itself.”²⁹⁵ I am interested in finding whether, through the use of extended instrumental techniques, precise frequency analysis, and perhaps juxtaposition with video, it is possible for instrumental sounds to achieve an effective mimetic result beyond a “hobbling” and “rough” scanner of the

²⁹⁴ Ibid.
²⁹⁵ Ibid.
everyday. If instrumental performance can be effectively recorded and reproduced by phonographic means, can the opposite also be possible? The “truth of the observation process” may be transposed to various media in order to further reveal the workings of human perception.

5.2.3 Future research

The layering of multiple spaces to create a plural sense of space or “hybrid space,” both sonically and visually, is an artistic concept that warrants further creative and scholarly research. Specifically, it would be beneficial to discover the limits in terms of what constitutes an effective “hybrid space” in the various combinations of media and orders of surrogacy within those media. For example, is it possible to create a sense of mimetically real hybrid space in sound by only juxtaposing sounds of first order surrogacy with sounds of second-order surrogacy? A systematic study in the perception of space in multimedia—that builds on Smalley’s framework concerning “Space-form” in electroacoustic music—could prove useful to artists interested in utilizing mimesis in their work.

Another subject for future research is the application of the reality effect to more artistic media: does the reality effect operate differently in dance, sculpture, lighting design, contemporary theatre, and virtual reality than in music, literature and painting? The questioning of the stability of reality and the rigorous observation

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of the everyday could be useful filters for understanding mimetic techniques in other art forms, and it may even be possible to develop a relatively comprehensive history of mimesis and the reality effect in all artistic media through future scholarly research and debate.

The mimetic nature of musical scores, as mentioned in section 4.2.1, warrants future research and discussion. If scores themselves are simulacra of a proposed acoustic reality, does this make acoustic composition an inherently mimetic artistic practice? The role of mimesis in music-making is a complex issue concerning all stages of the process and deserves robust debate.

One useful application of the audio reality effect would be a micro-analysis of a given musical work using the audio reality effect as a primary parameter for building musical meaning, an attempt to integrate the subjective nature of the audio reality effect into the sort of phrase-by-phrase analysis common to traditional music theory scholarship. While it is relatively simple to discuss large-scale aspects of artistic works concerning the reality effect, a more focused and complete analysis using the audio reality effect will test its suitability for incorporation into the canon of musical analysis techniques.

Mimetic artistic practice, with its robust history and grounding in human perception, deserves due diligence in the field of music through creative and scholarly research. If music is increasingly regarded to be sound-poetry of the instability of reality as well as the art of sounds in time, then a mimetic understanding of the sonic arts will have taken hold in a truly worthwhile way.
GLOSSARY OF TERMS

abstract vs. programmatic – music that simply exists as such, as opposed to music that attempts to depict objects, events or emotions.

audio reality effect - when a listener, after identifying the source of a sound used in a musical context, infers and superimposes their own memories and experiences onto their experience of the piece.

hybrid space - when visual or sonic information from multiple environments are layered on top of one another in a synergetic relationship.

hyperreality - the idea that it is no longer possible to distinguish between the real and the imaginary.

indicative field – the nine fields that overlap within the indicative network in order “to explain the links between human experience and the listener’s apprehension of sounding materials in musical contexts.”

lattice structure – a two-dimensional structure of possible notated pitches and rhythms available in Western music notation.

mimesis – the relationship of art to the representation of reality.

phonography – the sonic equivalent of photography.

reality effect - the use of concrete (and seemingly meaningless) details to lend literary description the weight of the experience of reality.

simulacra – an imitation, adjusted for perception, that is just as real as the original and so takes on its own unique essence.

sonic continuum - sounds in their “infinite variety of possible frequency, spectrum, timbre, dynamic-envelope, and change.”

soundscape composition - a recorded composition in which the original sounds (or soundscape) must stay recognizable.

source bonding – the “natural tendency to relate sounds to supposed sources and causes, and to relate sounds to each other because they appear to have shared or associated origins.”

surrogacy - the degree of ambiguity in the relationship between a sound and its gestural origin.

transcontextuality – “any recorded sound event where we are simultaneously aware of two (or more) contexts.”

298 Wishart, On Sonic Art, 23.
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152


