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# STEVEN BRYANT'S THE AUTOMATIC EARTH: A CONDUCTOR'S ANALYSIS AND PERFORMANCE PERSPECTIVES

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Dr. Lance Brunner, Director of Graduate Studies

# STEVEN BRYANT'S THE AUTOMATIC EARTH: A CONDUCTOR'S ANALYSIS AND PERFORMANCE PERSPECTIVES

DMA PROJECT

A DMA project submitted in partial fulfillment of the requirements for the degree of Doctor of Musical Arts in the College of Fine Arts at the University of Kentucky

By Corey S. Bonds Lexington, Kentucky

Director: Dr. John Cody Birdwell, Professor of Music

Lexington, Kentucky

2020

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## ABSTRACT OF DMA PROJECT

# STEVEN BRYANT'S THE AUTOMATIC EARTH: A CONDUCTOR'S ANALYSIS AND PERFORMANCE PERSPECTIVES

The purpose of this research is to present a conductor's analysis and performance perspectives of *The Automatic Earth*, composed by Steven Bryant for the Arizona State University Wind Orchestra, and premiered by its conductor, Professor Gary Hill, at the 2019 College Band Director's National Association National Conference. Through the conductor's analysis and performance perspectives, the author seeks to provide future conductors and performers with necessary musical interpretations and technical guidance. The four-part process of research includes: 1. detailed analysis of the musical score of *The Automatic Earth*, 2. observation of rehearsals and world premiere of the work, 3. indepth interviews with composer Steven Bryant, conductor Gary Hill, and technical support personnel, and 4. personal insight from the author, specifically pertaining to a conductor's first-time performance of electroacoustic music.

This study is not intended to be all-inclusive of the field of electroacoustic music, nor a complete history of electronic music. The scope of this study is intended to focus on this single work; however, an understanding of Bryant's previous works, most notably those in the electroacoustic wind band idiom, will provide a frame for consideration in the research. Through traditional means of musical analyses in melody, harmony, structure, and other common elements, the research will communicate necessary musical interpretations for future performances of the work. Technical guidance will aid future programming for conductors, as well as encourage advancement of the electroacoustic idiom in music composed for wind band.

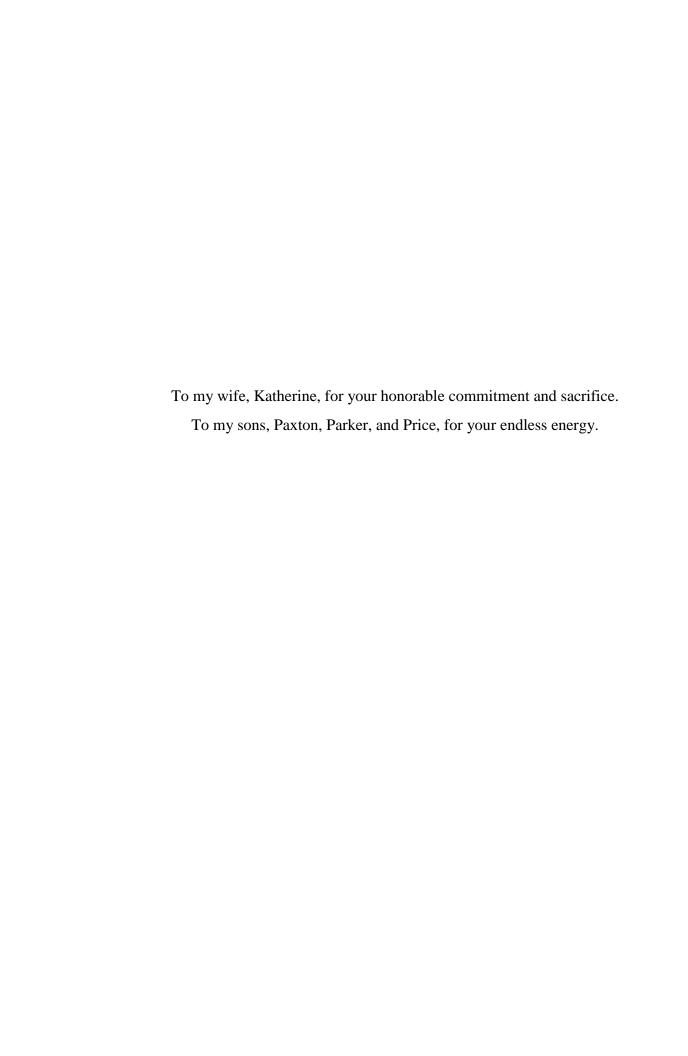
KEYWORDS: Steven Bryant, Electroacoustic	The Automatic Earth, Co	onducting, Band, Wind Ensemble,
		Corey S. Bonds
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		4/17/2020
		(Date)

# STEVEN BRYANT'S THE AUTOMATIC EARTH: A CONDUCTOR'S ANALYSIS AND PERFORMANCE PERSPECTIVES

By

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Dr. John Cody Birdwell
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#### INTRODUCTION

Over the last two decades, Steven Bryant has become a very common name related to modern wind band literature. His works span a large range of experience levels and genres, and his most recent addition for wind band is no exception. The Automatic Earth is categorized as an electroacoustic wind band work, because it utilizes traditional acoustic instruments of the wind band alongside the wide array of sounds available in the electronic music idiom. Much growth has occurred in this specific subgenre of wind band music as more composers seek to diversify their compositional output. Bryant states very clearly on his personal website that his "music ranges from electronic experiments to works for professional symphony orchestra, from music for middle school band to virtuosic solo pieces, and combinations of all of these with live electronic media."<sup>1</sup> Bryant also states his belief in "writing music not only for accomplished musicians, but also for those at the beginning of their musical lives."<sup>2</sup> In creating "music that gives you no choice but to listen," The Automatic Earth melds intriguing melody, biting dissonance, shocking electronics, and silence, putting audiences in a constant state of ambiguous familiarity. Bryant describes this as an intentional and ongoing "disturbing" state. Such compositional tools create a consistent voice for Bryant and elicit a wide

<sup>&</sup>lt;sup>1</sup> Steven Bryant Music, https://www.stevenbryant.com/, accessed October 7, 2019.

<sup>&</sup>lt;sup>2</sup> Ibid.

<sup>&</sup>lt;sup>3</sup> Jamie Nix, "Steven Bryant's *Ecstatic Waters* for Wind Ensemble and Electronics: Compositional and Performance Perspectives for Conductors," (PhD diss., University of Miami, 2010), 5.

<sup>&</sup>lt;sup>4</sup> See Appendix A: "Conversations with Steven Bryant about *The Automatic Earth*," Interviews by Corey S. Bonds in Tempe, AZ on February 22, 2019 and via phone conversation on March 7, 2020.

range of audience and performer emotion. His blended palette of aesthetically charged acoustic and electronic sounds places *The Automatic Earth* as an inspirational source for future works in the electroacoustic wind band medium.

This document fulfills graduation requirements set forth by the University of Kentucky Graduate School for the Doctor of Musical Arts degree. Two portions of work are reflected in the document that follows.

Part I is a monograph divided into seven chapters, providing an analysis and performance perspectives for future performers of *The Automatic*. Chapters 1 and 2 provide a brief introduction to the research and its purposes along with a brief history of electroacoustic music. Chapters 3 through 5 present an overview of Bryant's electroacoustic wind band works, give necessary background to the literary and social influences on *The Automatic Earth*, and provide an analysis of the work. Chapter 6 discusses performance perspectives for ensemble conductors, acoustic musicians, and electronic musicians, while chapter 7 concludes the discussion with a look at the work in context to the current and future state of electroacoustic wind band music.

Part II includes programs and program notes for each piece conducted as part of the degree from the University of Kentucky. Also included is the written manuscript for the lecture recital that was presented on Tuesday, January 29<sup>th</sup>, 2019.

#### CHAPTER 1

# Methodology, Related Research, and Purpose

The research method for this study includes four processes: 1) a detailed analysis of the musical score of *The Automatic Earth*; 2) the observation of rehearsals and world premiere performance, presented by Professor Gary Hill at Arizona State University at the 2019 National Conference of the College Band Directors National Association, 3) indepth interviews with composer Steven Bryant and conductor Gary Hill, and 4) personal programming insight from the author, specifically pertaining to information regarding a first-time performance of electroacoustic music. Research on prior electroacoustic works for wind ensemble will frame the current study, giving particular attention to those within the past decade. The process of analysis for *The Automatic Earth* will use these guiding questions in pursuit of a holistic and thorough study:

- 1. What are the musical elements on which Bryant chose to base *The Automatic Earth?*
- 2. What are the inspirations behind *The Automatic Earth*, and how do these play out through both the score and the implementation of electronics?
- 3. What compositional styles or techniques are present in *The Automatic Earth*?
- 4. What consistencies and inconsistencies are present in *The Automatic Earth* when compared to Bryant's other electroacoustic works?
- 5. What technical issues must be overcome by conductors and performers when programming this work?
- 6. What are some effective rehearsal strategies that must be used when preparing *The Automatic Earth* for performance?

- 7. How does *The Automatic Earth* reflect the current state of electroacoustic music for wind ensemble?
- 8. Based on current trends, what is the projected future of electroacoustic music for wind band?

Related research to the study of *The Automatic Earth* is limited, as this document represents the only scholarly research completed on the newly-minted composition. The study of previous works by Steven Bryant serves as an aide to understand his compositional voice, giving particular attention to his use of electronic media over the past decade. Two studies within the last ten years provide historical framework for the current document. Dr. Jamie Nix, in a 2010 doctoral dissertation titled "Steven Bryant's *Ecstatic Waters* for Wind Ensemble and Electronics: Compositional and Performance Perspectives for Conductors," provided both an analysis and a detailed biography, both items being of necessary proportion to the current study. Additionally, in a 2013 dissertation titled "Steven Bryant's *Solace*: A Conductor's Analysis and Performance Guide," Dr. Justin Davis discusses electroacoustic properties of the work and gives insight toward Bryant's continued compositional traits. In understanding Bryant's compositional style and lineage, both of these studies prove valuable.

Other research on Bryant is found in the fifth volume of the book series titled *A Composer's Insights*. Written by Erin Bodnar, the article gives specific information on several works by Bryant, including his *Parody Suite*, *Alchemy in Silent Spaces*, *Axis Mundi*, and his often-performed *Concerto for Wind Ensemble*. Most of these works predate Bryant's exploration in electroacoustic music and, therefore, the specific information about these pieces is not necessarily useful toward the current research and analysis pertaining to the electroacoustic music of the composer. However, what is particularly

advantageous to the current study is the general discussion of Bryant's compositional style especially found in his first decade of published compositions.

Analyses of many works by Bryant can be found in the book series *Teaching Music Through Performance in Band*. This collection is a valuable resource for brief analytical overviews of band music for young, developing, advanced, and professional level ensembles. Each book contains 100 works, providing insights on historical, technical, stylistic, musical, and structural elements. Thus multiple entries on an assortment of Bryant's works, both traditional and electroacoustic, provide a broad range of dialogue about the composer and his compositions.

An historical frame of reference will be necessary, but is not intended to be a full chronological presentation of electronic music. Rather, the range will be limited to those composers and works that are deemed critical in the musicological canon and reflect compositional or performance processes relevant to those present in Bryant's works. By way of traditional musical analysis of melody, harmony, structure, and other common elements, the research will seek to provide future conductors and performers with the necessary musical interpretations for performances of *The Automatic Earth*. Technical guidance will aid future programming for conductors and performers, as well as encourage expansion of the electroacoustic idiom. Progress should be expected, as new musical ideas continually interact with social and technological transformations of the present and future.

#### CHAPTER 2

# A Brief History of Electronic Music

Electroacoustic music is the "preferred term for music which involves the combination of instrumental or vocal sounds with the electronic (often computer-assisted) manipulation of those sounds, or with sounds pre-recorded on tape." The first intentions of electronics in music primarily focused on the transmission, storage, and reproduction of live music. In discovering this *electrical energy* as described by Eric Salzman in *Twentieth Century Music: An Introduction*, the realization that this energy could also be mechanically generated was a driving force behind the invention of electronic instruments such as the Theremin (1920), the Ondes Martenot (1928), and the Hammond organ (1934). These instruments produced electronically generated sounds ranging from the "simple pulse of a sine wave (producing a 'pure' sinusoidal tone) to the complex, random oscillation of all the audible frequencies (producing 'white noise')." Additionally, the invention of magnetic tape brought electronic music to the fore, boasting many "new" techniques which gave access to innovative musical possibilities. Salzman states:

Most tape/loudspeaker music shares certain basic techniques: the superimposition of layers of sound through simultaneous recording and overlaying, and the alteration of sound characteristics through the use of electronic filters, reverberation, tape loops (providing endless pattern-repetition), control of intensity, change of tape speed (producing

<sup>&</sup>lt;sup>5</sup> The Oxford Companion to Music, s.v. "Electroacoustic Music," by Arnold Whitall, accessed October 1, 2019, <a href="http://www-oxfordreference-com.ezproxy.uky.edu/">http://www-oxfordreference-com.ezproxy.uky.edu/</a>.

<sup>&</sup>lt;sup>6</sup> Eric Salzman. *Twentieth Century Music: An Introduction*, 3rd ed. (Englewood Cliffs: Prentice Hall, 1988), 147.

transpositions up or down to the limits of equipment response). Tape can be chopped or spliced in limitless combinations and juxtapositions, affecting the character of single sounds or whole structures. Sound transformation involving the finest distinctions or the most gradual rates of change may be juxtaposed with the most violent contrasts, and the extremes can be mediated by every possible gradation in between."<sup>7</sup>

The mid-century influx of technological advancement, based more on curiosity than aesthetics, did not go without opposition. For most of the first three decades of the twentieth century, the vast majority of the western musical world was firmly planted on the belief that if instruments were dependent upon electricity and mechanical implementation, they were inferior to acoustic instruments. Sounds were often considered artificial and unresponsive to the interaction of human hands. By the late 1930s, however, the voice of proponents for electronic inclusion began to be heard.

Percy Grainger, in his 1938 essay titled "Free Music," declared that "too long has music been subject to the limitations of the human hand, and subject to the interfering interpretations of a middle-man: the performer." According to Grainger, a composer desires to speak directly to his public audience, and "machines (if properly constructed and properly written for) are capable of niceties of emotional expression impossible to a human performer." Thus, Grainger's two short works titled *Free Music* were edited by

<sup>&</sup>lt;sup>7</sup> Ibid., 148.

<sup>&</sup>lt;sup>8</sup> Percy Grainger, "Free Music," in *A Musical Genius from Australia: Selected Writings by and about Percy Grainger*, ed. Teresa Balough (Nedlands: University of Western Australia Press, 1983), 144.

<sup>&</sup>lt;sup>9</sup> Ibid.

the composer from their 1907 version for strings into a 1936 edition for Theremin, which in his mind had the "most perfect tonal" capacity of any instrument.

George Gershwin, another proponent for the marriage of musical styles, also speaks of the 'Machine Age' and its impact on music of his *modern* America.

Specifically, he tells of the use of actual machines (taxi horns, door bells, and typewriter keys) as musical instruments in conjunction with the traditional stage of instruments.

This can be traced as a stepping stone for further machine inclusion as experienced today. To this, Gershwin wrote:

I do not think there is any such thing as mechanized musical composition without feeling, without emotion. Music is one of the arts which appeals directly through the emotions. Mechanism and feeling will have to go hand in hand, in the same way that a skyscraper is at the same time a triumph of the machine and a tremendous emotional experience, almost breath-taking. Not merely its height but its mass and proportions are the result of an emotion, as well as of calculation.<sup>11</sup>

Grainger and Gershwin each played a small role in the advancement of electronic inclusion, and had a tremendous impact across several musical genres, perhaps most unknowingly in what is now known as electroacoustic music. However, two other highly influential electronic experimentalists rumbled more loudly and more contextually implicit – Edgar Varèse and Karlheinz Stockhausen.

10 Ibid.

<sup>&</sup>lt;sup>11</sup> George Gershwin, "The Composer and the Machine Age," in *Music in Modernism*, ed. Daniel Albright (Chicago: University of Chicago Press, 2004), 387.

These two, Varèse and Stockhausen, articulated arguments of a more extreme nature, far more liberal in debate – so much so that their urgings for electronic music fell with a bit of a clang among traditionalists. They, Varèse in particular, made many attempts to debunk any possible future of acoustic music and rallied toward the need for total replacement by its electronically mechanized opponent. Prophetically supporting his musical dream world, in a lecture given at the University of Southern California in 1939, Varèse delivered these thoughts on such a "machine":

For my conceptions, I need an entirely new medium of expression: a sound-producing machine (not a sound-reproducing one). Today it is possible to build such a machine with only a certain amount of added research....whatever I write, whatever my message, it will reach the listener unadulterated by 'interpretation.' It will work something like this: after a composer has set down his score on paper by means of a new graphic notation, he will then, with the collaboration of a sound engineer, transfer the score directly to this electric machine. After that, anvone will be able to press a button to release the music exactly as the composer wrote it – exactly like opening a book....and here are the advantages I anticipate from such a machine: liberation from the arbitrary, paralyzing tempered system; the possibility of obtaining any number of cycles or, if still desired, subdivisions of the octave, and consequently the formation of any desired scale; unsuspected range in low and high registers; new harmonic splendors obtainable from the use of sub-harmonic combinations now impossible; the possibility of obtaining any differentiation of timbre, of sound-combinations; new dynamics far beyond the present humanpowered orchestra....all these in a given unit of measure or time that is humanly impossible to attain." <sup>12</sup>

Varèse summarizes his somewhat skewed and peripheral views on the subject of electronic music, pioneering such efforts during the 1920s and 1930s. These statements place Varèse a couple of decades prior to the landmark date of 1948, when Pierre

<sup>12</sup> Edgar Varèse, "Music as an Art-Science," in *Contemporary Composers on Contemporary Music*, ed. Elliott Schwartz and Barney Childs (New York: Holt, Rinehart and Winston, 1967), 200.

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Schaeffer would instate the *musique concrète* concept in the studios of the French Radio. It was Varèse, however, who eventually brought his "total replacement prophecy" to fruition when he composed *Poem Electronique* for the unveiling of the Philips Pavilion at the Brussells World's Fair in 1958. Ideas of spatialization, lighting, and film synchronization were all important parts of the new work. With these ideas, Varèse cast his influential nets over much of today's coexisting state of music and media.

The other above-mentioned electronic experimentalist, less radicalized than Varèse, more inclusive of traditional musical concepts, and perhaps more aligned with the aim of this study in electroacoustic wind band music, is Karlheinz Stockhausen. He stood as the most prominent German explorer of electronic music. A late contemporary of his French counterpart, Stockhausen's 1955 composition *Gesang der Jünglinge*, brought to light a new electroacoustic musical territory. More specifically, the work collapsed barriers between electronic music and Schaeffer's *musique concrete* by becoming the first piece to "establish fully the aesthetic viability of the electro-acoustic medium." In *Gesang*, Stockhausen layered a choirboy's voice singing "Praise the Lord!" with electronically generated phonetic fragments of itself. In *The Rest is Noise*, Alex Ross describes the musical event as "a flickering mass of electronic sound, which goes from eruptions of synthesized noise...to hauntingly voice-like phrases. Boy and machine imitate each other, uniting nature and artificial worlds." \*\*Idea Gesang would prove\*\*

<sup>&</sup>lt;sup>13</sup> *Grove Music Online*, s.v. "Karlheinz Stockhausen," by Richard Toop, accessed October 1, 2019, https://doi-org.ezproxy.uky.edu/10.1093/gmo/9781561592630.article.26808.

<sup>&</sup>lt;sup>14</sup> Alex Ross, *The Rest is Noise* (New York: Farar, Straus and Giroux, 2007), 395.

to be a sustainable and course-altering example in the field of electronic music, as Stockhausen set himself apart. He tended to regard electronics as "extending and transforming" to the traditional sounds of music in a quite visionary style. One of the most impressive elements of sound transformation from *Gesang* is its ability to blend the two worlds – acoustic voice and electronic sound. Johnathon Harvey speaks to this point in his study on Stockhausen's music:

At those moments where one realizes that a sound one had initially thought of as a vocal one turns out to be an electronic one, and *vice versa*, the unity of the two contrasting elements is apparent, and apparently submitted to a higher ordering that transcends the difference between them.<sup>16</sup>

Stockhausen would spend the remnants of his long compositional career entangled in a web of electronic cords and quickly changing landscape. His electronic application to music shifted from the use of taped sounds to live electronic music, growing a distinct interest with his 1964 work titled *Mikrophonie I*. Here, Stockhausen used electronics along with his newly adopted 'moment form' to have two teams of three performers collaborate in playing one very large tam-tam in alteration. Each team member was to play one of three roles: the first to strike the instrument, as prescribed; the second to hold a microphone near or moved within the area of the sound source, as prescribed; the third to operate a sound board, of sorts – to control the volume and filter the amplified sounds, as prescribed. Harvey's impressions on this new electronic

<sup>&</sup>lt;sup>15</sup> Whitall, *The Oxford Companion to Music*.

<sup>&</sup>lt;sup>16</sup> Jonathan Harvey, *The Music of Stockhausen* (Berkeley: Univ. of California Press, 1975), 79.

projection from Stockhausen is that "if one can submerge oneself into this giant mixing machine with all its complex reverberations...it cannot be denied that a totally new experience of sound is offered...a microcosm of 'moment-form' technique."<sup>17</sup> In other words, this work by Stockhausen set the standard for a performance in which one person, in many cases the composer, controls the mixing of the various electronically amplified sounds from the center of the auditorium. Continuing today, albeit far more advanced forms of technology with the use of digital sound and hand held tablets, the trend of sound mixing continues to give audiences a sense of interaction as well as immersion in a sound environment, much as Harvey states (above) regarding *Mikrophonie I*.

Alongside these German experiments, Varèse laboriously composed one of the earliest forms of French electroacoustic music, his *musique concrète* relic for chamber winds titled *Deserts*. Written in 1954, the piece employs fourteen winds, five percussionists, and electronic tape, mirroring instrumentation of two earlier works for winds, *Hyperprism* (1923) and *Intégrales* (1923-1925). *Deserts* was also the near-first instance that a composer had incorporated sections of acoustic and taped sound into an instrumental work. Often stated as the "first" combination of these two sound worlds, the piece was actually written on the heels of two younger contemporaries argued by many to have been more capably-minded in the area of electronic manipulatives. These men were Otto Luening and Vladimir Ussachevsky, who collaborated on two works for orchestra

<sup>17</sup> Ibid.

and tape in 1953, titled *Rhapsodic Variations* and *Poem in Cycles and Bells*. <sup>18</sup>

Nonetheless, history continues to point to a larger context through the music of Varèse. The lackluster reception of *Deserts* could easily be blamed on its inability to fulfill the heralded announcements about the unlimited sound possibilities in electronic music. Varèse had stated himself that listeners of *Deserts* should expect a "never-before-thought-of use of the inferior resultants and of the differential and additional sounds...[an] entirely new magic of sound." <sup>19</sup> Instead, one critic heard "rumbles and buzzing, beeps and blurps, metallic growls and a kind of mechanical keening...dentist drills, riveting, trains going over a rusty bridge, a monstrous bowling alley or rush-hour traffic gone wild." <sup>20</sup> This type of reception certainly doesn't bode well for the broad "acceptance" of the electroacoustic concept, but Varèse desired far more than audiences and critics "liking" his music.

Longer lasting effects have been established through studying Varèse' process rather than the sounds he created in *Deserts*. He recorded the organized sounds onto two tracks, intending them to be played back stereophonically. The three sections of 'organized sound' on tape was contrastingly interpolated into four sections of instrumental music. Those acoustic sections projected a kind of *Klangfarbenmelodie*,

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<sup>&</sup>lt;sup>18</sup> Anne C. Shreffler, "Varèse and the Technological Sublime; or, How Ionisation Went Nuclear" in *Edgard Varèse: Composer, Sound Sculptor, Visionary*, ed. Felix Meyer and Heidy Zimmermann (Woodbridge: Boydell Press, 2006), 290-293.

<sup>&</sup>lt;sup>19</sup> Edgar Varèse, "New Instruments and New Music," in *Contemporary Composers on Contemporary Music*, ed. Elliott Schwartz and Barney Childs (New York: Holt, Rinehart and Winston, 1967). 196.

<sup>&</sup>lt;sup>20</sup> Howard Taubman, "Music: No Sound Like a New Sound," *The New York Times*, December 1, 1955.

something quite new to the music voice of Varèse. In contrast, the three electronic sections of 'organized sound' do in fact come across quite "crude and often ill-defined, perhaps reflecting the poverty of the facilities in the Paris studio where Varèse worked on his material." According to Fernand Ouellette, it took Varèse eight years to achieve a satisfactory version of the recorded sounds, and these tapes stand with *Poème électronique*, as the "finest examples of living music" that the composer conceived. <sup>22</sup>

However, much of the musical world stood unimpressed, firmly planted in its established norms, and stubbornly scrutinized this new dehumanized sound of music. *Deserts* caused a firestorm of critical writing about electronic music's assault on the traditional institute. Even so, the work freshly sparked the concepts of electroacoustic music. After all, in a spirit of Sergei Diaghilev's response to the *Rite of Spring* riots, publicity of any kind is good publicity. In this tone, Ouellette writes his counter-argument to the uproar of negative critique: "After *Deserts*, no composer could remain ignorant of the power of sound or of the possibilities offered by new techniques."<sup>23</sup>

These techniques were explored voraciously by a few highly interested composer-technicians over the next few decades. Advances in computational technology and personal-sized computers enabled much investigation to continue. In Paris, the Institut de Recherche et Coordination Acoustique/Musique (IRCAM), under the leadership of Pierre Boulez, became one of the premier centers for exploring electronic music. At IRCAM,

<sup>&</sup>lt;sup>21</sup> Paul Griffiths, *Modern Music: The Avant Garde, since 1945* (New York: George Braziller, 1981), 113-114.

<sup>&</sup>lt;sup>22</sup> Fernand Ouellette, *Edgard Varèse* (New York: Orion Press, 1966), 191.

<sup>&</sup>lt;sup>23</sup> Ibid., 194.

next-generation electronic music composers discovered techniques of spectralism, which focused on the comparative analysis of frequencies and intensities found in fundamental tones and overtones. These calculations then gave composers the means by which they could change and control those relationships by adjusting certain variants of the mathematical ratios. Another development of the latter half of the twentieth century was the subgenre of acousmatic music, where listeners are asked to completely abandon the written form of musical input; as opposed to seeing a score visually, listeners are asked to explore the sonic sound world with ears and mind only, where sounds on tape could be musical or non-musical in origin, but have undergone edits and manipulations. Rather than focusing on the source of the sounds such as *musique concrete* "Acousmatic music has focused attention on how we listen to sounds and to music, and what we seek through listening."<sup>24</sup>

As electronic music experimentation marched through the remainder of the twentieth century, and its numerous techniques were being conjured, the 1950s were also seeing the creation of the wind ensemble behind the leadership of Frederick Fennell and the Eastman School of Music. Fennell desired to "create a 'sound resource' available to composers wishing to write music for the wind ensemble [where] decisions concerning instrumentation, how many players on each part, etc., would be made by the person writing the music."<sup>25</sup> Thus, the scene had been set for what would eventually become an

<sup>&</sup>lt;sup>24</sup> *Grove Music Online*, s.v. "Electro-acoustic music," by Simon Emmerson and Denis Smalley, accessed October 4, 2019, <a href="https://doi-org.ezproxy.uky.edu/10.1093/gmo/9781561592630.article.08695">https://doi-org.ezproxy.uky.edu/10.1093/gmo/9781561592630.article.08695</a>.

<sup>&</sup>lt;sup>25</sup> Frank L. Battisti, *The New Winds of Change: The Evolution of the Contemporary American Wind Band/Ensemble and Its Music* (Delray Beach: Meredith Music, 2018), 69.

onslaught of new music over the next half century. With that new music came "new ideas" regarding what music can and should include. Experiments with new techniques began to reflect social norms, much like traditional instrumental music of prior centuries reflected social awareness. But for the late twentieth and early twenty-first century this would often play out in a responsiveness to technology, its strongholds, and, oftentimes, its over-reach. As Dr. Jamie Nix states:

The traditional orchestra is not always capable of producing the sounds and textures that might reflect certain types of human experience in the twenty-first century. With electronics and computers, virtually any sound imaginable can be fused with traditional sounds to express the entire gamut of human experience *at this time*. Composers are now, more than ever, using sonorities and timbres created by the technology *of this day* to achieve a dynamic range of expression never before possible.<sup>26</sup>

Giving particular attention to the last two decades, technologically and socially conscious music has delivered startlingly higher rates of compositions involving electronics. In fact, many of classical music's critically acclaimed composers have incorporated electronically produced sounds over the past two decades. Some of the most influential composers in the modern electroacoustic wind band idiom have first been active in the orchestral world.

John Corigliano, one of the most widely acclaimed American composers of his time, has received numerous awards, including a 2001 Pulitzer Prize for his *Symphony*No. 2, an Oscar for best film score for his 1999 work *The Red Violin*, numerous Grammy Awards, and the Grawemeyer award for his *Symphony No. 1*. Of notoriety in electronics,

<sup>&</sup>lt;sup>26</sup> Nix, "Steven Bryant's *Ecstatic Waters*, 5. Emphasis in original.

Corigliano produced *Vocalise* for soprano, electronics, and orchestra. The work was Corigliano's attempt to deliver a message to the New York Philharmonic audience, through the lens of its performing ensemble on the eve of the new millennium. For Corigliano the answer was clear: "It was time for the acoustic world of classical music to come to terms with the worlds of amplification and electronic manipulation that surrounded it in the popular and film world." *Vocalise* took its audience on an eloquent, beautiful musical journey. Within the work, a soprano soloist becomes aware of her need for amplification and begins to use a microphone, through which her sounds create a "loop" in the electronic media. Instruments layer their own interjections into the "loop", and, by the end of the work, Corigliano journeys his audience through a multifaceted, suggestive work – hopeful to forge new musical relationships in the coming millennium.<sup>28</sup>

Mason Bates, another award-winning composer, currently seeks to bring "new music to new spaces." His endless passion for musical function in today's fast-paced, technologically-driven society fuels his success. Anne Midgette, of *The Washington Post* reported on Bates' being named "Composer of the Year" by *Musical America*:

Bates is one of the most-performed living American composers—precisely because he gives people something to like. Orchestra audiences who aren't sure about contemporary music hear thoughtful, skillfully written pieces that are at home in the modern world and offer the ear a lot to hold onto. There are electronics—Bates himself, at his laptop, often sits among the orchestra

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<sup>&</sup>lt;sup>27</sup> John Corigliano, "Vocalise," Digimedia, accessed October 1, 2019, http://www.johncorigliano.com/index.php?p=item2&sub=cat&item=36.

<sup>&</sup>lt;sup>28</sup> Ibid.

players. There is amplification. There is a propulsive, kinetic energy. There are mercurial transformations from one thing to another."<sup>29</sup>

Bates' mainstream presence and use of a traditional voice threads acoustics and electronics together. With about half his works for orchestra being inclusive of electronics, Bates has become a driving force in the rise of electroacoustic music. *Rusty Air in Carolina* (2006), *Liquid Interface* (2007) and *The B-Sides* (2009) were among his first works for symphony orchestra and electronics, followed by *Mothership* (2010), and most recently, *The Art of War* (2018), which was commissioned during his current residency with the Kennedy Center for the Performing Arts in Washington D.C. *The Art of War* received a tremendous reception with audiences. Bates interweaves a three-movement symphonic form with recorded sounds of weapons tests, American and Iraqi folk music, and printing presses belonging to the US treasury. He has also transcribed *Rusty Air in Carolina* and *Mothership* for wind band. Each work received immediate and tremendous reception following performances by collegiate and professional wind groups across the United States.

Alex Shapiro stands as another of the more noteworthy composers in the twenty-first century, particularly in the electroacoustic idiom. Shapiro has been featured in *WASBE World*, the official magazine of the World Association for Symphonic Bands and

<sup>29</sup> Anne Midgette, "Composer of the Year: Mason Bates," Musical America Worldwide, Performing Arts Resources, LLC, accessed October 1, 2019, https://www.musicalamerica.com/features/?fid=329&fyear=2018.

<sup>&</sup>lt;sup>30</sup> George Hurd, "The Art of War," Mason Bates, December 3, 2018, <a href="https://www.masonbates.com/artofwar-blog/">https://www.masonbates.com/artofwar-blog/</a>.

Ensembles, where she discusses her work in electroacoustic wind band music with compositions such as *Paper Cut* (2010), *Tight Squeeze* (2013), *Liquid Compass* (2014), *Lights Out* (2015), *Moment* (2016), *Rock Music* (2016), and *Trains of Thought* (2017).<sup>31</sup> These works represent a wide array of ensemble performance level, but all collectively point to the increasing leverage of the electroacoustic wind band idiom. The work of composers like Shapiro has *rehumanized* electronic music. In the above-mentioned WASBE article, Shapiro says "no matter how many high-tech elements might be involved in composing and producing a piece, the primary connection is not machinemade, it's human-made....When technology is paired with the heart, we have endless ways to give others an entertaining and meaningful experience through music."<sup>32</sup>

Composer Steven Bryant joined the meritoriously artistic conversation of electroacoustic wind band music in 2008 with his first large-scale work written for the idiom, *Ecstatic Waters*. A five-movement, twenty-two minute winner of the 2010 National Band Association's cherished William D. Revelli Award, *Ecstatic Waters* was premiered by conductor Bruce Moss and the Bowling Green State University Wind Ensemble on October 23rd, 2008. Dr. Jamie Nix, in his dissertation about the work, states the following:

[Bryant] took advantage of the sonic possibilities of our day to cleverly and thoughtfully marry the acoustic sounds of the wind ensemble with the digital sounds of the electronics in a musically expressive way. The electronics were used sparingly and considerately to augment the concert experience in a manner

<sup>31</sup> Alex Shapiro, "Works," Alex Shapiro, accessed October 1, 2019, <a href="https://www.alexshapiro.org/ASWorks.html">https://www.alexshapiro.org/ASWorks.html</a>.

<sup>&</sup>lt;sup>32</sup> Alex Shapiro, "The e-Frontier: Electroacoustic Music, Multimedia, Education, and Audiences in the Digital World," *WASBE World* (September 2014): 11-12.

that does not supplant the wind ensemble, but only enhances it...and has proven to be an aesthetically appealing and musically substantial contribution to the wind ensemble repertoire."<sup>33</sup>

Bryant's work in electroacoustic music will be explored more specifically in the following chapter.

While a complete history of electroacoustic music is not the aim of the current study, the material discussed above helps determine a lineage toward the outgrowth of current trends in the idiom. From the use of electronic sounds as interpolated and completely separate musical moments, to the live audio playback of a manipulated audio effect layer, much of the compositional process has remained the same; but the equipment used has advanced in digital intuition and the technological advancements have far exceeded what mid-twentieth century composers could have possibly imagined. In the *Oxford History of Western Music*, author Richard Taruskin states:

The digital revolution of the 1980s foreshadowed above all liberation from the tradition of notated music. Electronic music is the medium least dependent on notation. It can bypass both the pencil-and-paper phrase of the creative process and the composer's need to communicate with performers. And no medium was more thoroughly transformed at the end of the twentieth century, thanks to the advent of personal computers. New technologies revolutionized every aspect of music making from composition to performance, distribution, and consumption, especially once the Internet became central to everyday life. At every level, the effect has been to simplify and democratize music. In the process these technological advances may well have dealt the literate musical tradition a slow acting death blow.<sup>34</sup>

<sup>&</sup>lt;sup>33</sup> Nix, "Steven Bryant's Ecstatic Waters", 108-109.

<sup>&</sup>lt;sup>34</sup> Richard Taruskin and Christopher Gibbs, *The Oxford History of Western Music*, 2nd ed. (New York: Oxford University Press, 2019), 863.

While this certainly presents one side of an ongoing musical debate, one simply cannot look upon the current integrations of electronic music as inferior or aesthetically paralyzing. On the contrary, each of the active composers above, particularly Bryant, continue to breathe fresh air into the repertoire and give a compelling reason for further exploration of the electroacoustic wind band idiom.

### CHAPTER 3

# Steven Bryant's Electroacoustic Works

Lineage is important. Musicians absorb much of their expressive fabric from those who taught them; and, generally speaking, musicians impart similar understanding and meaning to those they teach. Therefore, when analyzing any work, conductors must delve into the musical lineage of the composer being studied, as well as the piece itself. Michael J. Colburn, Director of Bands at Butler University and former Director (2001–2014) of "The President's Own" United States Marine Band, states that the conductor has an obligation to "learn as much as [one] can about the history and background of these composers to help us understand what this music really is all about. Any composition, to some degree, is a peek into the soul and mind of that composer, and should be considered within the context of the time period of its creation." 35

The breadcrumbs of Steven Bryant's influences trace back to three principal teachers – Francis McBeth, Cindy McTee, and John Corigliano. From McBeth, Bryant reaped his economic use of motives and consorted orchestration during his time at Ouachita University. While pursuing his Master of Music Degree at the University of North Texas with McTee, Bryant developed an acute awareness of musical flow. In an interview with Dr. Erin Bodnar of the University of North Florida, Bryant recalls he and

<sup>&</sup>lt;sup>35</sup> Michael J. Colburn, "Michael J. Colburn," in *Rehearsing the Band*, Vol. 2. (Delray Beach, Meredith Music), 8.

 $<sup>^{36}</sup>$  Erin Bodnar, "Steven Bryant," in *A Composer's Insights*, Vol. 5. ed. Timothy Salzman (Galesville: Meredith Music, 2012), 43.

McTee would "lay out all of the music on the floor of her office, still doing paper and pencil, and try to get a 'God's eye' view of it. A sense of the large form, not the individual details."<sup>37</sup> Furthermore, as Bryant spent an additional year pursuing a Graduate Diploma degree at Julliard, he would study with the Pulitzer Prize winning composer John Corigliano. Corigliano, much like prior teachers, focused on conceptualizing form and cohesion, and helped Bryant gain architectural sensitivity through graphic representation of his works. Corigliano required colored pencil sketches of musical thoughts before Bryant was allowed to pen a single note or chord. This proved to be a frustrating process to Bryant, yet he acknowledges the value of the formalizing process.<sup>38</sup>

To date, Bryant has composed more than fifty works for wind band, five of which are written for wind band and electronics. These electroacoustic compositions began in 2008 with his work titled *Ecstatic Waters*, which stands as one of his most performed works. The composer himself describes *Ecstatic Waters* as "music of dialectical tension – a juxtaposition of contradictory or opposing musical and extra-musical elements and an attempt to resolve them. The five connected movements hint at a narrative that touches upon naiveté, divination, fanaticism, post-human possibilities, anarchy, order, and the Jungian collective unconscious." The work is Bryant's initial attempt to blend one of his first compositional loves and fascinations – electronic music – with band music of nostalgic worth. Wind band has been a part of his aural surroundings since his childhood

<sup>&</sup>lt;sup>37</sup> Ibid., 44.

<sup>38</sup> Ibid.

<sup>&</sup>lt;sup>39</sup> Steven Bryant, "Ecstatic Waters (Wind Ensemble Electronics)," accessed January 11, 2020. <a href="https://www.stevenbryant.com/music/catalog/ecstatic-waters-wind-ensemble-electronics">https://www.stevenbryant.com/music/catalog/ecstatic-waters-wind-ensemble-electronics</a>.

days spent in his father's high school and middle school band rooms in Little Rock,
Arkansas. Bryant successfully weaves the two sound worlds into one compositional
palette, blending a new genre in his own musical dialect through which he brings new
possibilities for collaboration at all performance levels. Though *Ecstatic Waters*premiered on October 23, 2008, it was the College Band Directors National Association
performance on March 27, 2009 in Austin, TX that introduced Bryant's newly
established electroacoustic language to an eager audience. Performed by the University
of Texas Wind Ensemble and conducted by Jerry Junkin, the electroacoustic style was
well-received. Timothy Reynish, world-renown conductor, lecturer, educator, and wind
band critic said of Bryant's work, "I was ravished by the sound world, a hybrid of
electronics and live players, beautifully controlled, with a range of expression and
technical work far beyond most works in this conference."

Following the grand reception of *Ecstatic Waters*, Bryant's next electroacoustic work, *Solace*, was completed in 2012. The work was commissioned by a consortium of fourteen ensembles, led by University of North Carolina Greensboro and conductors John Locke and Kevin Geraldi. Many of Bryant's compositional characteristics are equally present in this work: dissonance, motivic development, and dramatic musical flow. Dr. Justin Davis states that the real unique quality in this work is Bryant's "choice to record acoustic sound and weave it in and out of live acoustic sound," giving a "sense of life to the electronic part" and putting those recorded electronic sounds on an "equal level of

<sup>&</sup>lt;sup>40</sup> Timothy Reynish, "Conferences - CBDNA 2009," Tim Reynish, accessed January 2, 2020, <a href="http://www.timreynish.com/conferences/cbdna-2009.php">http://www.timreynish.com/conferences/cbdna-2009.php</a>.

importance to the live players in the ensemble... [making them] a coordinated integrative partner in the wind ensemble medium, just as the brass is to the woodwinds."<sup>41</sup>

The next two works for electroacoustic wind band were written for less advanced ensembles, bringing Bryant's electroacoustic sound sculptures to younger performers and engaging them in technological languages they speak more fluently than the generations that precede them. *The Machine Awakes* was written in 2012 and commissioned by a consortium of twenty ensembles. The project was led by Arris Golden of Gravelly Hill Middle School in Efland, North Carolina. <sup>42</sup> In 2014, Bryant composed *Coil*, which began when he test drove a Tesla Motors Model S electric car. That test drive "provided the spark to explore the company's namesake, inventor Nikola Tesla, and in particular the sonic possibilities of his famous Tesla Coils." Those coils, according to Bryant, emit an "intense buzzing sound," which ultimately led to the composer's integration of two powers: the symphonic band and several sound samples of actual Tesla Coils along with other electric power sources. The work was commissioned by Bishop Ireton High School, under the direction of Randall Eyles. <sup>44</sup>

Each of these four electroacoustic works that pre-date *The Automatic Earth* provide a stepping stone in Bryant's developing electroacoustic wind band language. His

<sup>&</sup>lt;sup>41</sup> Justin C Davis, "Steven Bryant's Solace: A Conductor's Analysis and Performance Guide" (dissertation, ProQuest, 2014), 49.

<sup>&</sup>lt;sup>42</sup> Steven Bryant, "The Machine Awakes (Band Electronics)," Steven Bryant, accessed January 04, 2020, <a href="https://www.stevenbryant.com/music/catalog/the-machine-awakes-band-electronics">https://www.stevenbryant.com/music/catalog/the-machine-awakes-band-electronics</a>.

<sup>&</sup>lt;sup>43</sup> Steven Bryant, "Coil (Band Electronics)," Steven Bryant, accessed January 3, 2020, <a href="https://www.stevenbryant.com/music/catalog/coil-band-electronics">https://www.stevenbryant.com/music/catalog/coil-band-electronics</a>.

<sup>44</sup> Ibid.

use of electronics varies from piece to piece. Some demand highly involved equipment, while others have options of minimal requirement. Figure 3.1 lists the method of electronic integration in each of Bryant's five electroacoustic works. No matter the chosen method, Bryant's electronics parts are conceived with a musical awareness, thus demanding performers approach his works with musical fervor.

Figure 3.1: Electronic Integration in Bryant's electroacoustic wind band works

Title	Published	Method of Electronic Integration	
Ecstatic Waters	2008	Ableton Live triggered by laptop	
Solace	2012	Ableton Live triggered by 88-key keyboard	
The Machine Awakes	2012	iPad/iPhone/Android App used for audio playback	
Coil	2014	Ableton Live triggered by 61-key keyboard OR iPad/iPhone/Android App triggered by 61-key keyboard OR audio files used for playback (with click track)	
The Automatic Earth	2019	Ableton Live triggered by laptop & 88-key keyboard.	

#### **CHAPTER 4**

## Background and Compositional Process

The Automatic Earth is an expansive electroacoustic work for wind ensemble, and is the fifth and most recent installment into Steven Bryant's catalogue of electroacoustic wind band music. The work eloquently paces its audience through thirty-one minutes of musical extremes. Not necessarily programmatic, the narrative contour of the work provides a contemplative space for some of humanity's current dilemmas, namely the crises of climate change and technological advancement. In this work, Bryant has remained steadfast in two characteristics that span through much of his oeuvre: a focus on structure and an underlying connection to literary influence.

An integral part of Bryant's compositional process is beginning with intentional focus on structure and architectural layout, rooted in his desire to impart a visceral experience upon his audience. Bryant's stated compositional motto is that he wants to "create music that gives the listener no choice but to listen." He achieves a wide variety of musical gestures, most which are generated from his strength of creating large-scale formal progression using small amounts of musical material. There is also an everpresent ambiguity within the music. As Bryant states, "everything is about wanting [his] listeners to feel like they know the material, toeing the line of expectation, then violating those expectations." Bryant's panache for ambiguity is what creates a "disturbing

<sup>45</sup> Steven Bryant, "This Isn't Band Music," BCM International, accessed December 28, 2019, <a href="http://www.bcminternational.com/this">http://www.bcminternational.com/this</a> isnt band music.php.

<sup>&</sup>lt;sup>46</sup> See Appendix A, "Conversations with Steven Bryant about *The Automatic Earth*."

experience" at times for the audience, as he composes "far enough out to keep the audience's interest but not lose them." Through both incessant energy and deafening stillness, Bryant is able to fully achieve these compositional goals in *The Automatic Earth*. Immediately following uncomfortable decibels of winds and electronics, he delivers his audience the aforementioned contemplative space to balance the intensities of the work. This contemplative space comes as musical stillness, during which acoustic members of the ensemble are inactive, and electronics are subtly droning or offering occasional sound effect, but harmonic motion is absent. One can consider silence and stillness as affectual equivalents in *The Automatic Earth*.

In fact, some of Bryant's most thought-provoking spaces come in his use of musical stillness. More specifically, this five-movement work plays as one continuous whole. But stillness is used as a transitional element at the end of Movement II and Movement IV. Each of these climactic spaces gives a specificity to its use of stillness by setting it to a determined amount of time, thus removing the element of freedom and interpretation between the movements. Jennifer Judkins, in her article titled "Aesthetics of Silence" in the *Journal for Aesthetic Education* states that "musical silences are charged with meaning by the tonal and rhythmic material surrounding them." In live performance, silence and stillness are aesthetically connected to their surrounding sound events, giving a space where the listener is able to "reflect in that moment upon what

<sup>47</sup> Ibid.

<sup>&</sup>lt;sup>48</sup> Jennifer Judkins, "The Aesthetics of Silence in Live Musical Performance," *The Journal of Aesthetic Education* 31, no. 3 (Autumn 1997): 52.

separates the ongoingness of the work from our ordinary surroundings."<sup>49</sup> Bryant's use of stillness in these continuous and time-measured moments removes the freedom of interpretive aesthetic. By determining how long the stillness lasts, Bryant has controlled a quite fickle balancing act. Referred to by Judkins as a "framing silence," the silent space between movements both divides and unifies the work by preparing its listeners for what is to come while dissipating what preceded. <sup>50</sup> These silences rarely only resolve musical tension; in fact, silence may often prolong tension. In *The Automatic Earth*, Bryant achieves a remarkable sense of released tension by juxtaposing his most polarizing efforts in sound design. Yet he has retained control of each moment using framed silences or stillness, which allow for dissipation of electronics and the space to recollect thoughts.

A second, equally important aspect of Bryant's composing is the construction of dramatic music using an inspired association to prose, poetry, popular song lyrics, or other creative arts. For *The Automatic Earth*, Bryant provides many snippets of text that lay structural foundations to the dramatic interplay of narrative and musical score. But, as mentioned above, there is no intention of programmatic storytelling. Rather, the composer-to-listener discourse is enhanced with these direct sources of aesthetic contour.

Serving as cornerstone support of Bryant's dialogue, the first literary inspiration comes from a 2018 report on the climate crisis of global warming and the need for

<sup>50</sup> Ibid., 44-45.

<sup>&</sup>lt;sup>49</sup> Ibid.

alternative energy sources released by the Intergovernmental Panel on Climate Change, IPCC. This body of scientists and economists of the United Nations is made of members from 195 countries and serves to "provide policymakers with regular scientific assessments on climate change, its implications and potential future risks, as well as to put forward adaptation and mitigation options." Within the score, Bryant summarizes the following from the IPCC 2018 Special Report:

The warming effect of increasing carbon dioxide takes decades to influence the planet's temperature. Even if we cut all emissions today, we are still set for a temperature rise, due to the cumulative effect of the climate. To meet a goal of 1.5 °C warming, this demands immediate cutting of the planet's emissions to forty-five percent below the 2010 levels by 2030...If the global temperature rises by 1.5 °C, humans will face unprecedented climate-related risks and weather events. We are on track for a 3-4 °C temperature rise. <sup>52</sup>

Bryant records a second influence from an article published in *Yes!* magazine by Bill McKibben. He is one of the world's leading environmentalists and winner of numerous awards for his writings that spur the climate change movement. In the article, McKibben boldy states the following:

We have to keep eighty percent of the fossil-fuel reserves that we know about underground. If we don't – if we dig up the coal and oil and gas and run them – we will overwhelm the planet's physical systems, heating the Earth far past the

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<sup>&</sup>lt;sup>51</sup> "Special Report: Global Warming of 1.5°C," *Intergovernmental Panel on Climate Control*, accessed January 3, 2020, <a href="https://www.ipcc.ch/sr15/">https://www.ipcc.ch/sr15/</a>.

<sup>&</sup>lt;sup>52</sup> Steven Bryant, "The Automatic Earth," accessed December 20, 2019, <a href="https://www.stevenbryant.com/music/catalog/the-automatic-earth">https://www.stevenbryant.com/music/catalog/the-automatic-earth</a>.

red lines drawn by scientists and governments. It's not 'we should do this,' or 'we'd be wise to do this.' Instead it's simpler: 'We have to do this.<sup>53</sup>

A third literary influence on Bryant's musical dialogue of these crises is Charles Darwin's well-known book *On The Origin of Species by Means of Natural Selection*.

Bryant pulls from the main crux of Darwin's thesis with this literary tie:

We shall best understand the probable course of natural selection by taking the case of a country undergoing some physical change, for instance, of climate. The proportional numbers of its inhabitants would almost immediately undergo a change, and some species might become extinct.<sup>54</sup>

With these three implied influences in mind, Bryant titles his first movement "A Slow Fire," referencing the crisis of the eerily slow warming effect occurring on earth and the need for humanity to adapt its course of action, lest the worst case scenario of species extinction might come to be. Albeit quite grim, Bryant uses this as a starting point for musical dialogue on such topics.

Bryant employs a popular song lyric from Paul Simon's "The Boy in the Bubble" as the main title and aptly named fourth movement "The Automatic Earth". Simon's

<sup>54</sup> Charles Darwin, On the Origin of Species by Means of Natural Selection: Or the preservation of Favoured Races in the Struggle for Life (New York: Appleton, 1870), 78.

<sup>&</sup>lt;sup>53</sup> Bill McKibben, Yes!, February 15, 2016, <a href="https://www.yesmagazine.org/issue/life-after-oil/2016/02/15/why-we-need-to-keep-80-percent-of-fossil-fuels-in-the-ground/">https://www.yesmagazine.org/issue/life-after-oil/2016/02/15/why-we-need-to-keep-80-percent-of-fossil-fuels-in-the-ground/</a>.

lyric also supplies the title of the second movement ("Days of Miracle and Wonder").

These lyrics of Simon were released on the 1987 album titled *Graceland*:

It was a slow day
And the sun was beating
On the soldiers by the side of the road
There was a bright light
A shattering of shop windows
The bomb in the baby carriage
Was wired to the radio

These are the days of miracle and wonder
This is the long-distance call
The way the camera follows us in slo-mo
The way we look to us all
The way we look to a distant constellation
That's dying in a corner of the sky
These are the days of miracle and wonder
And don't cry baby don't cry
Don't cry

It was a dry wind
And it swept across the desert
And it curled into the circle of birth
And the dead sand
Falling on the children
The mothers and the fathers
And the automatic earth

These are the days of miracle and wonder
This is the long-distance call
The way the camera follows us in slo-mo
The way we look to us all
The way we look to a distant constellation
That's dying in the corner of the sky
These are the days of miracle and wonder
And don't cry baby don't cry
Don't cry

It's a turnaround jump shot
It's everybody jumpstart
It's every generation throws a hero up the pop charts
Medicine is magical and magical is art
Thinking of the Boy in the Bubble
And the baby with the baboon heart

And I believe
These are the days of lasers in the jungle
Lasers in the jungle somewhere
Staccato signals of constant information
a loose affiliation of millionaires
And billionaires, and baby

These are the days of miracle and wonder This is the long-distance call The way the camera follows us in slo-mo The way we look to us all, oh yeah The way we look to a distant constellation That's dying in a corner of the sky These are the days of miracle and wonder And don't cry baby don't cry Don't cry, don't cry<sup>55</sup>

Packaged in satirical wit, Simon referenced several technological phenomena of the 1970s and 1980s. Medical marvels such as a boy in a bubble, a human heart replaced by a baboon's, and cellular phones achieving worldwide reach and social impact.

"Lasers in the jungle," \*\*staccato signals of constant information," \*\*and "the camera follows us in slo-mo" \*\*staccato signals of the technologically specific ideas from the song lyric.

Other socially charged statements about technology exist in the song as well.

First, like the wired radio bomb, technology can be used for ill gain. But when used in terms of the boy in the bubble, technology can enhance life. Second, the quickness of the

<sup>&</sup>lt;sup>55</sup> Paul Simon, *Graceland* (New York, Warner Brothers, 1986), accessed December 15, 2019, https://www.paulsimon.com/track/the-boy-in-the-bubble-6/.

<sup>&</sup>lt;sup>56</sup> Ibid.

<sup>&</sup>lt;sup>57</sup> Ibid.

<sup>58</sup> Ibid.

"turnaround jump shot"<sup>59</sup> represents technology's developmental speed, which usually happens so quickly that proper assessment is not possible – a "ready, fire, aim" approach. One can interpret these lyrics as aligning with *The Automatic Earth*, where Bryant states "the tandem acceleration of technological wonder and ecological catastrophe means, at best, a strange, unrecognizable future, likely within our lifetimes."<sup>60</sup>

The third movement of *The Automatic Earth* is titled "Shining of Shadow" and is influenced by another icon of environmental thinking, Robinson Jeffers (1887-1962). Jeffers is both highly esteemed and disregarded for his many forms of poetry and his ideals of *Inhumanism*, which called for people to turn from selfish thinking, "reject human solipsism, and recognize the transhuman magnificence." In other words, Jeffers felt that it was "time that our race began to think as an adult does, rather than like an egocentric baby." The second verse of Jeffers' "Night" reads:

Over the dark mountain, over the dark pinewood,

Down the long dark valley along the shrunken river,

Returns the splendor without rays, the shining of shadow,

Peace-bringer, the matrix of all shining and quieter of shining.

Where the shore widens on the bay she opens dark wings

And the ocean accepts her glory. O soul worshipful of her

You like the ocean have grave depths where she dwells always,

And the film of waves above that takes the sun takes also

<sup>&</sup>lt;sup>59</sup> Ibid.

<sup>&</sup>lt;sup>60</sup> Steven Bryant, "The Automatic Earth," accessed December 17, 2019, https://www.stevenbryant.com/music/catalog/the-automatic-earth.

<sup>&</sup>lt;sup>61</sup> Robinson Jeffers, Preface to *The Double Axe and Other Poems* (New York: Random House, 1948), vii.

<sup>&</sup>lt;sup>62</sup> Ibid.

Her, with more love. The sun-lovers have a blond favorite, A father of lights and noises, wars, weeping and laughter, Hot labor, lust and delight and the other blemishes. Quietness Flows from her deeper fountain; and he will die; and she is immortal.<sup>63</sup>

Bryant uses this verse from Jeffers' poem to illuminate a full range of emotional material within the third movement, which become quietly overwhelming.

The fifth and final movement is titled "The Language of Light". From the script of the HBO television series *Westworld*, Bryant pulls a quote of main character Dolores Abernathy, who states, "A strange new light can be as frightening as the dark." Here, Bryant captures the essence of artificial intelligence and technological takeover. *Westworld*'s story revolves around a futuristic theme park where guests can pay exorbitant amounts of money to realize all their inner fantasy, in an "old west" setting populated by incredibly life-like robots. Within the plot, as one should suspect, these robots become aware of consciousness and eventually try to overtake the humans that created them. But even more deeply, this series intends for its viewers to consider and explore how artificial intelligence and technological advancement is already bringing a darker, gloomier reality into existence. As lives are uploaded in smartphones, there is a great cost to humanness; but most of society has developed an immunity to these thoughts. Science has been discussing concerns for many years, and still mankind ignores that the creations are becoming more human than the creators.

<sup>&</sup>lt;sup>63</sup> Robinson Jeffers, *Selected Poems* (New York: Random House, 1965), 6.

Through these literary connections, Bryant's affinity for structure takes on new meaning, and his music challenges listeners to stop ignoring these and other problems of massive proportions. He writes the following program note, published in the score and on his website:

The Automatic Earth, for wind ensemble and electronics, addresses the ongoing climate catastrophe and evokes the psychological effect of the impending disruptive change to our entire way of living on the planet, even under a best-case scenario. Our way of life is unsustainable, therefore it will not continue. The piece weaves together two threads: the climate crisis, and the technological transformation of what it is to be human. The tandem acceleration of technological wonder and ecological catastrophe means, at best, a strange, unrecognizable future, likely within our own lifetimes. I do not know if we will survive as a species: if we continue as we are now, average world temperature will increase around 8°C within eighty years, which would result in runaway warming and a Venus-like atmosphere that virtually no life on earth can withstand. If we do survive, it will be via monumental feats of geo-engineering and human re-engineering, surpassed only by an extraordinary change in our willingness to cooperate with each other. Humanity will be forever altered. This way of life will die. The question is whether or not we will die with it.<sup>64</sup>

Meanings and musical beginnings coalesced for Bryant during a late night conversation with *The Automatic Earth*'s lead commissioner, Gary W. Hill, Professor of Music and Director of Bands Emeritus at Arizona State University. Hill states the discussion between him and Bryant, which took place at the 2017 National Conference for the College Band Directors National Association in Kansas City, Missouri, did not necessarily set out to be about music. Rather, the topic was the "dystopian manner in

<sup>&</sup>lt;sup>64</sup> Steven Bryant. *The Automatic Earth* (Durham, NC: Gorilla Salad Productions, 2019), 3.

which the world seemed to be moving,"65 where many people continue to ignore large concerns of social, financial, and environmental strains – quite frankly a "depressing conversation"66 The 2:00 AM culmination of that conversation brought Hill to a decisive claim that there needed to be a composer to write about the "dark, disturbing atmosphere"<sup>67</sup> of current life. Hill, previously informed of Bryant's full schedule of commissions, supposed the two of them should brainstorm other potential composers prepared for writing such a work. However, Bryant emphatically responded that he "needed to do this piece." There was really only one minor problem in moving forward. Hill had already commissioned a major work from John Mackey for a 2019 premiere, which meant there was a lack of time and resources. Nonetheless, *The* Automatic Earth commissioning project, which began at that moment in March of 2017, moved forward, establishing an affordable consortium member price, making the work available both monetarily and musically to various levels of ensembles. Bryant completed The Automatic Earth in January of 2019. The Arizona State University Wind Orchestra under the direction of Professor Gary W. Hill performed its world premiere on February 22<sup>nd</sup> of that same year, during the CBDNA National Conference in Tempe, Arizona. The Automatic Earth, The Unanswered Question of Charles Ives, and John Mackey's musical discourse on his mother's suffering with dementia, *Places We Can No* 

<sup>&</sup>lt;sup>65</sup> See Appendix B, "Conversation with Gary Hill about *The Automatic Earth*", Interview by Corey S. Bonds via phone call on August 3, 2019.

<sup>66</sup> Ibid.

<sup>67</sup> Ibid.

<sup>68</sup> Ibid.

Longer Go – the other major commissioning project mentioned above – presented a seamless second half of the evening's concert. From the audience, the musical dialogue was weighty. The space was contemplative, contemporary, and completely appropriate.

## **Instrumentation**

The Automatic Earth follows standard wind band instrumentation for its acoustic assignments. Bryant chose, however, to orchestrate added densities in a few places, particularly bassoons (three parts, third doubling as contrabassoon), clarinets (four parts), bass clarinets (two parts), contrabass clarinet, trumpet (four parts), euphonium (two parts), and tuba (two parts). The addition of electronics also requires an individual performer on an eighty-eight key controller keyboard as well as an individual to perform the laptop computer keyboard. The details regarding these performers' responsibilities will be discussed later in this document. The instrumentation is as follows:

Piccolo

Flute I – II – III

Oboe I – II

Bassoon I – II – III (Doubles on Contrabassoon)

Clarinet in Eb

Clarinet in Bb I - II - III - IV

Bass Clarinet I – II

**Bb** Contrabass Clarinet

Alto Saxophone I – II

Tenor Saxophone

Baritone Saxophone

Trumpet in Bb I - II - III - IV

Horn in FI - II - III - IV

Trombone I – II – III (Bass Trombone)

Euphonium I – II

Tuba I - II

**Double Bass** 

Keyboard / Computer (88-key controller <u>and</u> computer keyboard, triggering laptop computer running Ableton Live 10 suite (demo version is fine))

Piano (separate player from the electronic part)

Harp

Timpani

Percussion 1: Glockenspiel

Percussion 2: Vibraphone

Percussion 3: Crotales (Gb and Ab from upper octave, bowed), Marimba, Suspended Cymbal (can be shared with Percussion 4), Suspended Crash Cymbal (small, may be shared with Percussion 4), Gong/Cymbal for bowing, Bass Drum

Percussion 4: Crotales (G both octaves, A lower octave), Suspended Cymbal (can be shared with Percussion 3), Suspended Crash Cymbals (2: small, large), Gong/Cymbal for bowing, Sandblocks, Toms (2:

medium and low)

Percussion 5: Triangle, Tam-Tam

#### CHAPTER 5

### Analysis

As Bryant creates his dramatic musical language, his works tend to be equally concerned with horizontal motion and vertical sonorities. Therefore, in analyzing works by Bryant, the conductor must equally address each. In *The Automatic Earth*, both melodic and harmonic materials produce a constant juxtaposition of major and minor modalities, something Bryant had previously explored in other works, but not the depth to which he dives in this piece. The horizontal musical line blossoms from his use of small motivic gestures. The first presentation of thematic material, found in in the solo clarinet beginning at m. 15, is where Bryant fulfills his motivic tendencies in his compositional process. Gary Hill describes this clarinet solo (and its repeat later in the work) as "completely organic, creating earworms that last for weeks." Example 5.1 below shows the most frequently used motive from this theme which serves to unify the work. Throughout this analysis, this is referred to as *Motive a*. Using melodic intervals of a minor third and augmented fifth, *Motive a* is both easily recognized and helps convey the bimodal harmonic construction of the work. Within its first statement in the solo clarinet, Bryant clearly uses *Motive a* (Ab, Cb, G) twice, as well as an elaborated retrograde (G, Cb, Eb, F, Ab) in m. 17.70

<sup>69</sup> See Appendix B, "Conversation with Gary Hill about *The Automatic Earth*."

<sup>&</sup>lt;sup>70</sup> *The Automatic Earth* is a transposing score. Pitch references in this document are to the sounding pitch, transposed from how they appear in the score.

Example 5.1: The Automatic Earth, Mvt I, m. 15 - 20<sup>71</sup>

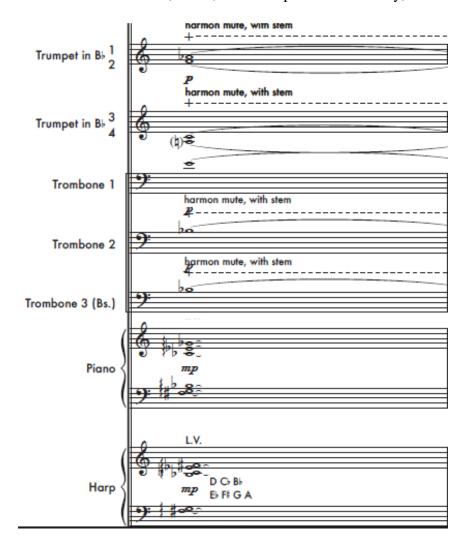


The vertical harmonic structure of the work, albeit mostly clear in tonal implication, creates dramatic tension in a very specific way. Bryant found himself drawn to the simultaneous use of two major chords a major third apart, reflecting chromatic mediant relationship. This first appears as a C-flat major chord (Cb, Eb, Gb) and an E-flat major chord (Eb, G, Bb). In using this combination, Bryant is able to achieve what he finds to be a resonant, thick, satisfying cluster of tones that overwhelmingly sounds major. Sometimes the root of one polychord is removed at cadence points, and what remains is commonly referred to as a split-third chord (Eb, Gb, G, Bb). Bryant takes advantage of the harmonic ambiguity within this vertical sonority, rarely resolving the tensions presented. Example 5.2 shows his use of this type of polychord (found in the piano and harp) and bimodal, split-third harmonic structure (found in the sustained brass chords) from bar 3. These two compositional tools, shown in Examples 5.1 and 5.2, are found throughout the entirety of the work. They are often manipulated to maintain the dramatic tensions and provide unity to the overall concept of *The Automatic Earth*.

<sup>&</sup>lt;sup>71</sup> Steven Bryant, *The Automatic Earth*, 1.

<sup>&</sup>lt;sup>72</sup> See Appendix A, "Conversations with Steven Bryant about *The Automatic Earth*."

Example 5.2: The Automatic Earth, Mvt I, bimodal/split-third harmony, m. 3<sup>73</sup>



# Movement I - "A Slow Fire"

The first movement, "A Slow Fire," begins with an exploration of somewhat isolated sound events, stretching from mm. 1-14. The electronics quietly and subtly emerge in the first measure with a sustained E flat, which extends for thirty-five seconds.

<sup>&</sup>lt;sup>73</sup> Bryant, *The Automatic Earth*, 1.

In the second measure the tempo sets to a very slow tempo (quarter note equal to forty-eight beats per minute), and a Harmon muted trombone oozes out of the electronic presence, which crescendos from niente to piano to greet the group that enters in the third measure. These first awakening sounds immediately challenge listeners to determine the sounds as either electronic or acoustic in origin.

The third bar brings three new sound events. The first is the sound of the slow fire, as suggested by the title, which appears with the unaccented, continuous swirling of sand blocks. The second is a tremolo and ascending cluster of saxophone and vibraphone that diminuendos from piano to niente, alongside a glissando of harmonics in the double bass, commonly known as the "seagull effect." This technique requires the bassist to firmly plant the thumb in position and place another finger using harmonic pressure at a comfortable interval from the thumb on the same string. The player, while bowing the stopped string, slides down the fingerboard at the fixed interval between thumb and finger, thus producing the ascending slide of pitch. This sound achieves an astonishing effect, again asking listeners to wrestle with the question of origin. The third sound event of measure 3 is the introduction of aforementioned tonal ambiguity – the C-flat major and E-flat major polychord in the piano, harp, vibraphone, trombones, and trumpets – the latter two with stemmed Harmon mutes. From mm. 4-12 the electronics provide a pulsating, syncopated rhythm that disorients the placement of beat, as the sound slowly crescendos and is joined by the Harmon-muted brass in measure 12. Here, the tensions and questions created for listeners are given a dramatic release of silence on beat four, followed by a splashing final sound event in the introductory section, mimicking the gesture of measure 3, but orchestrated differently. The ascending trill and scalar cluster

is composed more densely in the percussion with the inclusion of glockenspiel, vibraphone, two bowed crotales, triangle, piano and harp. Instead of saxophones, the clarinets carry the rising wind gesture, which diminuendos to niente. In total, this event once again flirts with modal ambiguity, morphing back and forth from major to minor. Momentarily, E-flat major proves victorious, as the piano and vibraphone arrive on a unison G natural in m. 14, but quickly fade, leaving a sustained E flat in the electronics as the lone bid for tonal center.

A solo clarinet line in mm. 15-27 improvisatorially introduces a fragmented version of motivic devices and melodies incorporated throughout the work, containing *Motive a* as specifically described above. Here Bryant continues his obscure modality, but remains consistent in his tonal center of E flat, aided by the continued presence of the electronic drone.

Following the solo clarinet introduction, Bryant immediately begins a restatement of the improvisatory gesture with an intertwining countermelody in the flute. Each voice uses ideas from the initial clarinet statement, but cohesion has not occurred quite yet. The harmonic structure is more varied, yet intently hovers the continued existence of E flat as tonic, while meandering with harmonies from the palette of C-flat major in the saxophone quartet and clarinet choir. These reed groups also provide a subdominant F-flat major chord in m. 33, although weakened by its use of retardation in the bass voice. The phrase closes with a sonically pleasing D-flat major chord in m. 35, quickly elides with an F Major downbeat in measure 36, only to be opposed by an A-major chord on beat three of the same bar. This newly competing F-major/A-major polychord is equivalent to the C-flat / E-flat modal ambiguity presented earlier, and each chord pair

returns at important moments later in the work. The harmonic tensions cadence in m. 37 by way of a  ${}^{b}VI / {}^{b}VII$  polychord (C-flat major / D-flat major), and disputably resolves back to the E-flat, split-third chord. This harmony fades in m. 38 as the horns distantly herald a reminder of *Motive a*. Example 5.3 reflects the harmonic analysis of these supporting chords as described above.

Example 5.3: The Automatic Earth, Mvt I, Harmonic Analysis, mm. 32-38<sup>74</sup>

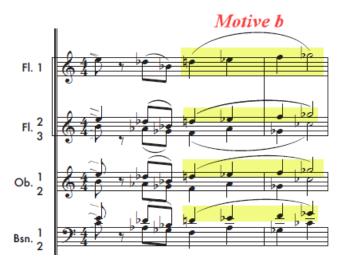


Bryant orchestrates in consorts for mm. 39-46, where woodwinds and double bass quietly present a four-bar phrase containing both tertian and quartal harmonies of E-flat tonicization. The melody draws from the clarinet solo earlier in the movement, particularly *Motive a*. The second and third bar of the phrase is similar to that of m. 18 from the original clarinet presentation, but there is a note added to the top of the ascending quarter note line, which at this moment presents *Motive b*. It begins on beat

<sup>&</sup>lt;sup>74</sup> Ibid., 4-5.

three of m. 40 and ascends through beat two of bar 41; the four note figure, though relatively unimportant and improvisatory now, returns on numerous occasions throughout the work, equal in stature to that of *Motive a*. Example 5.4 shows *Motive b* as first introduced in Flute 1, Flute 2, Oboe 1, and Bassoon 1 at mm. 40-41.

Example 5.4: The Automatic Earth, Mvt I, Motive b, mm. 40-41<sup>75</sup>



A brass consort of trumpets and trombones repeats the phrase. Each of these consorts is punctuated by horns and euphoniums playing ideas drawn from m. 23 in the opening clarinet solo. Melody and bass disagree in the conclusion each statement. As the melody finishes with the minor third and tonic, the bass ends on the major third of the tonicized key of E-flat. For the woodwind and double bass consort, the flutes and oboes finish the melodic line in m. 42 with G flat and E flat while the double bass and bass clarinet sustain a G natural. Similarly, the brass consort cadences in m. 46 with the melodic line of the trumpets playing G flat and E flat while the bass trombone sustains a G natural. In

<sup>&</sup>lt;sup>75</sup> Ibid., 5.

the hurried effort to find peace from the modal confusion, Bryant even shortens the meter in m. 46 to a three-beat bar, thus unveiling a sense of urgency for resolve in the matter, making the phrase of m. 47 even more compelling. Example 5.5 provides a glimpse at these split-third disagreements between melody and bass from each consort.

Example 5.5a: The Automatic Earth, Mvt I, Split-third Woodwinds, mm. 39-42<sup>76</sup>



Example 5.5b: The Automatic Earth, Mvt I, Split-third Brass, mm. 43-46<sup>77</sup>



As energy builds through these consorted phrases, m. 47 culminates in a more densely orchestrated statement of the same theme, keeping a similar harmonic palette but adding variety. A sharply dissonant chromatic D-major chord transforms to a D-minor chord in the bassoons and trombones on beats three and four of m. 50. This subterranean D chord more firmly plants the idea of modal ambiguity in the work. Bryant's harmonies

<sup>&</sup>lt;sup>76</sup> Ibid.

<sup>&</sup>lt;sup>77</sup> Ibid., 6.

are often distorted, as the art of blurring musical elements is a characteristic often ascribed to his compositions. He balances this with moments of clarity and haven from harmonic tensions. One such moment of harmonic transparency occurs during a predominant prolongation of mm. 50-53, where Bryant gives a distinct C-flat major chord (bVI) on beat three of m. 51, followed by an A-flat minor chord (iv) in mm. 52 and 53, all coming to rest on an interval of an open fifth E flat and B flat in m. 54, void of modal ambiguity altogether.

Transitioning through mm. 55-58, Bryant resurfaces two reminders: one of the slow fire with swirling sand blocks and another of the pulse of life with the reverberant bass drum sounding on beat one and echoing on beat two. The timpani grasps the role of tonicizing E flat in these final four bars as the winds give one final push of an "Air Only" sound effect into the second movement. The structure of Movement I is shown in Figure 5.1.

Figure 5.1: The Automatic Earth, Mvt I, Formal Structure

Sections	Features	Measures	Keys
Introduction	Ethereal effects	1-14	E-flat Major / C-flat Major
A	Improvisation-like clarinet solo, introduction of motivic ideas followed by canon-like polyphony	15-38	E-flat Major / C-flat Major
В	First theme introduced, <i>Motive a</i> and <i>Motive b</i>	39-54	E-flat Major / C-flat Major
Transition	Ethereal effects	55-58	E-flat drone

## Movement II – "Days of Miracle and Wonder"

The second movement, "Days of Miracle and Wonder," begins in m. 59 and its tempo is marked at quarter note equal to 144 beats per minute. It suddenly shifts to heightened energy and begins, like the first movement, with the sound of electronics. These electronics aid in establishing the marked tempo in this transition by giving recognizable rhythmic subdivisions in bar 60. Here, the conductor must align his or her pulse with that which is given in the electronic sound. The nature and complexity of this conductor-to-electronics alignment will be further discussed in the next chapter.

The mood of the work takes a sudden shift as well, as a new theme bursts forth at m. 61 with upper tessitura winds (trumpets, clarinets, and flutes) reaffirming E flat as the tonal center. However, for this theme, the melodic line is of Lydian quality, boasting an A natural throughout its presentation. Bryant's antecedent phrase of this new theme is mostly presented in chorale-like form, marked by triadic units advancing in unison rhythms. Horns and trombones mingle rhythmically independent lines, giving a polyphonic texture to the consequent phrase of the theme. Example 5.6 shows this new theme in brass voicings in mm. 61-72.

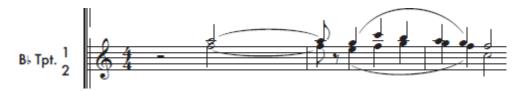
Example 5.6: *The Automatic Earth*, Mvt II, Second Theme, mm. 61-72<sup>78</sup>



<sup>&</sup>lt;sup>78</sup> Ibid., 8-9.

Bryant, as he did with the first theme, uses motivic development from the theme to provide a sense of unity. Example 5.7 shows *Motive c*, marked by the ascending fourth interval followed by Lydian descending scalar patterns. Used with a variety of rhythmic values and metric placements throughout the second movement, *Motive c* reappears in modified form during the work's final movement.

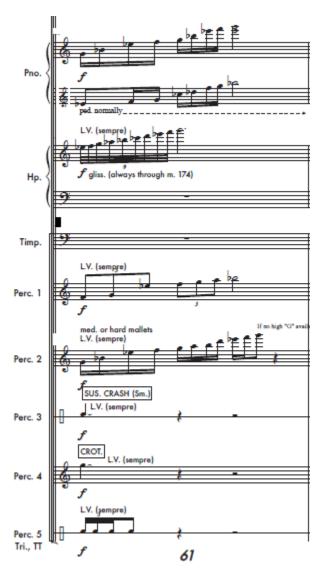
Example 5.7: The Automatic Earth, Mvt II, Motive c in Trumpet 1, mm. 64-66<sup>79</sup>



Alongside the melodic lines of the second theme, piano, harp, and percussion provide ascending flourishes of arpeggios and scale-like patterns, inclusive of E-flat major, E-flat Lydian, and some presence of C-flat. Example 5.8 shows these bimodal harmonies as presented in piano, harp, glockenspiel, and vibraphones m. 61. A splash cymbal, crotales, and triangle add to the metallic brilliance each time this effect occurs in the movement.

<sup>&</sup>lt;sup>79</sup> Ibid., 9.

Example 5.8: The Automatic Earth, Mvt II, bimodal harmonies, m. 6180



Bryant recalls the shape of *Motive a* at m. 67, as the trombone speaks into the midpoint of the second theme; however, the original augmented fifth interval of the motive is expanded by three semitones, causing the motive to soar toward the pitch of A,

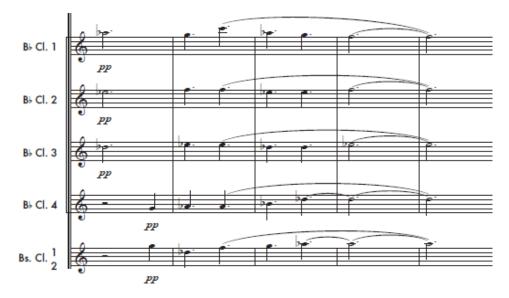
<sup>&</sup>lt;sup>80</sup> Ibid., 8.

which serves the Lydian role in E flat. This adjustment brings both familiarity and brightened newness. The bass drum and timpani drive a heavily anchored downbeat in m. 73 to close the second theme. Saxophones join as well, bringing another sound effect in mm. 73-74, a triadic trill and tremolo combination where the pitches blur together to create a mixture of E-flat major and G major, another chromatic mediant reflection. This is followed by major triads chromatically ascending to the return of the second theme in m. 75, which is once again stated in upper winds, but more densely decorated by piccolo, flute, and E-flat clarinet. Percussion, piano, and harp flourishes add shimmering effect while horns and trombones join the regal, yet legato chorale-fanfare. Closing this restatement, euphoniums and tubas layer an E-flat Lydian scale at bar 83 and descend into the collective cadence. The arrival of this cadence at m. 85 exposes the Lydian augmented fourth interval, all voices sounding either an E-flat or A. The Lydian leading tone of A then dually resolves both up and down in direction, providing the third and fifth degrees of an E-flat major consonance. Bass drum articulates the end of the second theme and begins a transition in mm. 86-94.

Continually serving to unify the work, dissonance quickly replaces consonance, as mm. 86-87 bring additional blurs of tonality. Saxophones recall the tremolo effect from a few measures prior while the piano and timpani reinforce the presence of the E-flat major and G major polychord. Woodwinds follow suit with harmonic blur as they present a complex sixteenth note passage in closed intervallic dissonance. Vertically, this moment could be analyzed as a collection of split-third, split-fifth, and major seventh chords, acting as a tailspin toward the E-flat and C-flat triads at the downbeat of bar 88. Double bass adds a glissando and the bowing of two metals (either tam-tams, gongs, or

thundersheets) sends a piercing sound effect. Equipment is not as important in this bowed percussion effect as the sounding pitch, which Bryant directs as either G or G-flat. As dissonance dissipates, a sixteenth note groove enters once again in the electronics at m. 88. Dynamics become more subdued in bar 89 as the clarinets faintly echo a motive associated with *Motive c*, transformed to C-flat Lydian. Shown in Example 5.9 below, the association is not exact. The relativeness is heavily strengthened by the ascending fourth interval, F to B flat, verbatim pitches to the original form of *Motive c*; however, the descent is tonally presented in C-flat Lydian, giving a different set of melodic intervals as related to the E-flat tonality the brass episode communicated moments earlier. The sharp contrast of timbre, dynamic, and melodic intensity – due to rhythmic augmentation – draws much attention to this significant musical event.

Example 5.9: The Automatic Earth, Mvt II, modified Motive c, mm. 89-9381



To complete this transitional phrase, saxophones emerge from the sustained clarinet C-flat chord with its contrasting mediant E-flat major triad. The second theme goes bounding once again, with flute, clarinet, piano, and glockenspiel as added color. However, two elements must be discussed in this particular statement of the second theme, mm. 95-103.

First, Bryant distinctly begins a four-bar shift of metric weight. Until this point, both tonic and agogic accents align, where the highest pitches and longest rhythmic values are prominently placed on the stressed beats of each measure. Contrastingly, the tonic accent of the melodic line shifts to the weaker fourth beat of m. 97 and begins a syncopated placement of accents on beats two and four thereafter. Shown in Example

<sup>&</sup>lt;sup>81</sup> Ibid., 11.

5.10, trumpets, flutes, clarinets, piano, glockenspiel, and vibraphone all pass the baton to horns, who then hand back to trumpets, completing the relay on the fourth beat of bar 100.

B) Tpt. 1

B) Tpt. 2

B) Tpt. 3

Hn. 1

Tbn. 1

Tbn. 2

Tbn. 3 (B<sub>1</sub>)

Example 5.10: The Automatic Earth, Mvt II, syncopated gesture, mm. 97-10082

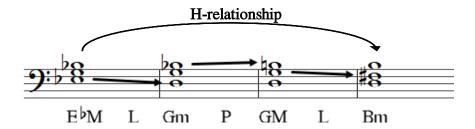
Each emphasis, spare the last, is derived more from an agogic sense, where note values are lengthened in the musical line to establish a higher degree of importance. The concluding emphasis is not given special consideration of note length, but rather delivers a unique harmonic twist as the trumpets ascend a C-flat Lydian melodic line in octaves,

<sup>&</sup>lt;sup>82</sup> Ibid., 12.

only to arrive on an enharmonically spelled D-major triad (labeled above in Example 5.10). Sharply dissonant to the sustained E-flat major triad in the trombones, this D-Major chord at the end of m. 100 significantly brings the syncopated line to an abrupt end, while giving a sense of fully-chromatic resolution to E-flat major at the close of the second theme in m. 103.

The second significant and unique event in this phrase is the presence of a half note C-flat minor chord (enharmonic equivalent of B minor, shown in Example 5.10 above) offered by the trombones in bar 99 on beat three. Though small in relation to the work as a whole, it does reflect the constant state of modal shift throughout the piece, and its placement on a metrically stressed beat among a syncopated melody gives it more affectual, resonant space. The relationship of this C-flat minor chord to its juxtaposed E-flat major chord in trumpets and horns can be explained by its Neo-Riemannian relationship of hexatonic polarity. This occurs as the secondary *H-operation* (a combined three-step sequence of **L**eading Tone, **P**arallel, and **L**eading Tone transformations) acts upon the existing E-flat major chord. The resulting chord is equal to every pitch moving up or down one semitone and shifting the chord quality from major to minor. Figure 5.2 provides a reduced harmonic example to represent the H-related chords used by Bryant here.

Figure 5.2: The Automatic Earth, Mvt II, Hexatonic Polarity Reduction, m. 99



Double and single reeds, along with double bass, bring a return of the first theme from bars 104-112. Bryant rhythmically augments the theme and sets it atop a driving sixteenth note groove in the electronics. Two quarter notes from the electronics, timpani, bass drum, and toms heavily punctuate the phrase's end. This is immediately followed by another restatement of the second theme in mm. 114-126, complete with percussion and piano flourishes spurring the brass and upper woodwinds. Quick chorale-like lines soar above syncopated inner voices as the phrase cadences in E-flat major at bar 126. But here, there is an eight-measure extension added to the phrase, suggesting the second theme has yet to be fully expressed without interruption by a recalled motive or sound effect. This added phrase maintains an E-flat Lydian identity as the brass collectively ascend underneath flourishing woodwind décor. Horn, alto saxophone, euphonium, and piccolo all rise toward the climax of the phrase in m. 130, some employing a one octave glissando to reach the summit. Measure 131 follows with a cascading E-flat Lydian scale, which Bryant extends by shifting its orchestration from higher-pitched instruments (upper woodwinds) to lower-pitched instruments (bassoon, saxophone, trombone, and euphonium). The gesture expresses another blurring effect by employing multiple degrees of rhythmic subdivisions, including quarter notes, triplets, sixteenths, and elevennote tuplets. A harp glissando supports the effect, and the passage settles on a sustained E flat in double bass, piano, harp, and timpani, inciting the next transitional section of the movement with a sixteenth note groove in the electronics.

Measures 134-154 convey a more skeletal sound, using a blend of new and returning sound effects to spur the musical narrative and continue the blurring effect of composition. Alto saxophones blur the pitches of C flat and G flat through quarter-tone lip bends, a difficult feat at the requested pianissimo dynamic. Bass clarinet and sand blocks distort pulse using an accelerating then decelerating articulation. In addition, metallic bowings in percussion and Harmon-muted trumpet approximate the pitch of G. All these are underpinned by a pulsating sixteenth-note groove in the electronics and quasi-ostinatos from piano and vibraphone, which continue the debate of modal salience as they gurgle E-flat major, E-flat minor, and C-flat major triads.

Clarinet and oboe bring gestures at bar 142 suggestive of first theme motives, with both augmentation and diminution employed. The relationship to *Motive a* is evident in the gesture's shape, melodically navigating a minor third with subsequent intervals of a minor seventh (m. 143) and perfect fifth (m. 150). *Motive c* renders from the descending Lydian expression in a style echoing the piano's gesture from m. 136. Example 5.11 shows these motivic relationships as described.

Example 5.11: The Automatic Earth, Mvt II, related motives, m. 142 - 15183



Full reed choir returns with the first theme at m. 154, articulating E flat as the preeminent tonal center. Addition of the contrabassoon thickens the rich, dark sonorities of the musical line while piano and vibraphone reiterate the above-described ostinatos until bar 159. The restatement familiarly winds its way through split-third dissonances as before, eventually resting on an E-flat major chord in preparation for yet another rondolike return of the second theme, which is reignited by a two-measure electronic episode like the movement's beginning. Nearly verbatim to the second theme statement at bar 114, the melody at m. 165 varies in orchestration with clarinets being added to the existing trumpets. Bryant also includes the eight-measure extension of brass ascent and woodwind décor. However, as the climax develops in mm. 177-181, the expected glissandi from alto saxophone, horn, euphonium, harp, piccolo and E-flat clarinet contribute a jolting surprise. The grandly expressed leap augments in interval to a major ninth rather than the expected octave; all voices amalgamate on a quarter-note F at beat four of m. 181. In other words, an unstressed fourth beat of the measure receives the

<sup>83</sup> Ibid., 18.

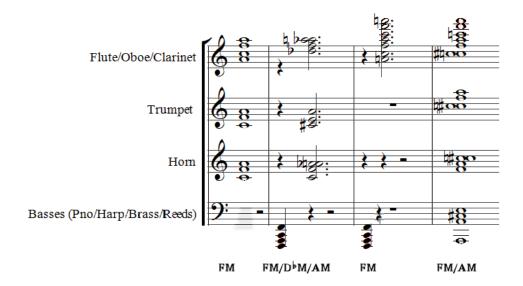
weight of a direct modulation, sparking a tonal shift that impacts the remainder of the work. However, the modulation unexpectedly shifts again in measure 182, as Bryant quickly shifts to the dominant C-Major chord on the second beat, followed by a half note D-flat major chord on beat three in the woodwinds, piano, harp, and percussion. The orchestration quickly shifts to brass and low reeds on beat four of the same measure, with a C-minor triad resolving to D-flat chord, a vii-I cadence in D-flat Lydian at the downbeat of m. 183.

A decisive augmented statement of the second theme pours forth at m. 183, boasting a full wind and pitched percussion sonority by the second phrase. Extremes of registration become notable, as the piano strikes the lowest available octave, while piccolo, first flute, E-flat clarinet, alto saxophone, and first trumpets are scored in their upper ranges. Non-pitched percussion, electronics, piano, and harp also give clusters of interjection within the melody.

Maintaining a resilient D-flat Lydian presence throughout, this climactic statement of the second theme carries its standard motivic markers of the ascending fourth followed by descending stepwise motion. A closing bVI-bVII-I cadence in mm. 189-190 gives a heroic close to the movement, anticipated by the direct tonal shift to the key of F experienced in measure 182. The combination of the D-flat Lydian melody as well as the B-flat minor chord in measure 189 does imply the possibility of an F minor resolution. But Bryant, in an occasional moment of clarity, chooses to resolve to a simple, resonant F-major chord in m. 191. Much like the previously explored E-flat and C-flat combinations, here Bryant sets the stage for further experimentation of the chromatic mediant F Major and D-flat major polychord. Additionally, the immediate

attraction of the F split-third chord becomes another investigative topic. As prophecy fulfilled, m. 191 recalls the familiar first theme, and the work quickly retreats into its ambiguous tendencies, a contagious melodic line hovering over functionally distant yet proximally close chromatic transformations. At the closing of this first theme and the second movement, Bryant brings further twist to the musical plot by mirroring the chromatic mediant polychord around F, pinning F Major and A Major into coexistence. Example 5.12 shows a reduction of the chords in measures 198-201, grouped according to chordal function. Measure 198 is an F-major chord in second inversion. Measure 199 resounds a denser polychord – F minor, A major, and D-flat major, all bitingly dissonant to the dangling F Major. As quickly as it came, the tension ebbs back to the F-major chord at m. 200, contrastingly voiced for only upper woodwinds. The closing chord is an F-major and A-major polychord, requiring full sonic power from all voices to achieve the rich dissonances in the orchestrations and completing the reflective transformation of the polychord.

Figure 5.3: The Automatic Earth, Mvt II, Polychord reduction, mm. 198-201



Bryant suggests fully holding the dissonance in m. 201 for six beats until the ensemble is overtaken by a pre-recorded version of the same chord in the electronics, which then sustains and dissipates to silence. A timed frame occurs before the third movement begins. Listeners and performers alike need these twenty-seven seconds to fully absolve the tension surfaced by the end of the movement. A chart of the formal structure is shown in Figure 5.4.

Figure 5.4: The Automatic Earth, Mvt II, Formal Structure

Sections	Features	Measures	Keys
A	Statements of the second theme which contains <i>Motive c</i> and its modified relative in brass and percussion; these are legato, fast-moving, chorales, each statement seemingly interrupted by interjections of other motives.	59-103	E-flat Lydian / C-flat Lydian
В	Return of first theme and <i>Motive a</i> from Movement I, rhythmically augmented	104-113	E-flat Major/E-flat Minor
A'	Fourth statement of second theme, with 8-measure transition of woodwind flourishes	114-134	E-flat Lydian
С	Transitional materials, ethereal effects, piano and vibraphone ostinato with electronic groove	134-154	C-flat Lydian
В	First Theme from Movement I, in augmentation	154-164	E-flat Major / E-flat Minor
A'	Second Theme with eight measure extended transition of woodwinds	165-182	E-Flat Lydian
A''	Second Theme in augmentation	183-190	D-Flat Lydian / F Major
В	First theme from Movement I, in augmentation, with electronic groove	191-197	F Major / F minor
Codetta	Short four-chord ending, subito fortissimo introduction to a new mediant relative, A; electronics engulf the ensemble chord	198-202	F Major/A Major

# Movement III - "Shining of Shadow"

The third movement begins with solo piano giving a hauntingly beautiful yet simple line. Melodically, the line is disjunct and unpredictable from one note to the next at first hearing. Cast over a subtly felt and sustained F oscillating with a quarter-tone flat

version of itself in the electronics, the line challenges the patience of even the most intent of listeners and performers. Tempo is marked quarter note equal to forty-eight beats per minute. The evocative eighteen-measure piano solo outlines much of the harmonic tensions with which Bryant experiments throughout the work, each phrase six measures in length.

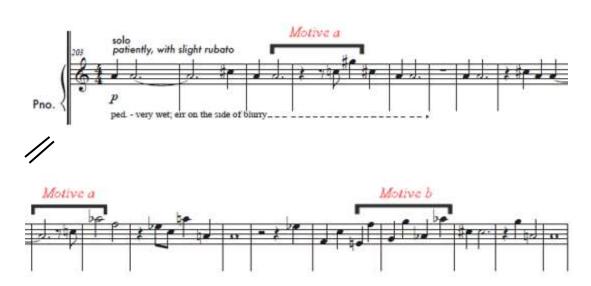
The first phrase, mm. 203-208, begins with an A quarter note echoing itself for six beats. It then shifts to a C sharp. With the F sustaining in the electronics, an augmented F tonality is suggested. With the pitch A still resonating in the pedaled piano, the melody then presents *Motive a* (A, C, G#). Combined with the F in the electronics, an F minor triad is outlined next, which concedes once again to the F augmented triad (reflected in the C sharp of m. 206 and the A of m. 207). The six-measure phrase concludes with four beats of silence in measure 208, reverberating the decaying A and the electronic quasi-F.

The second phrase of the piano solo begins much like the first – outlining the tonalities of A major in the melody, then shifting to F minor in m. 212. Gestures from mm. 210-214 use the same pitch collection as mm. 21-23 in the clarinet solo of Movement I, altered mostly by rhythmic augmentation, and displaced in registration at various moments.

The third phrase also marks the use of *Motive b*, blurred again by displacement of registration. Further distortion occurs as the pianist is asked to perform the line with

pedaling which Bryant notes as "very wet, err[ing] on the side of blurry."<sup>84</sup> This performance suggestion alone begins to confiscate tonal clarity, aligning with the overall intent of the work. Example 5.12 shows the three-phrase piano solo as related by fragmented displacement to the first theme.

Example 5.12: The Automatic Earth, Mvt III, motive displacement, mm. 203-22085



Moving forward in Movement III, Bryant gives cyclic return to much of the first movement, layering it over the newly introduced piano reduction, all surrounding the new tonal center of F and its chromatic mediant relatives. In m. 221, the clarinets softly give the first theme, adjusted rhythmically and stuttered with a few repeated fragments within

<sup>84</sup> Ibid., 26.

<sup>85</sup> Ibid.

the line. Connective tissue from the piano in mm. 227-230 outline the first theme in fragmented displacement, reflecting the iteration of the theme from m. 48. Here Bryant stretches the pitch of the melodic line toward the raised fifth scale degree of F, which is represented by the ascent to the C sharp in the piano at m. 230.

Clarinets and flutes join to reflect similar melodic material using the first theme and climb toward D flat, gently reaching their destination at m. 235 with the flute and piano echoing the arrival with an oddly consonant three-note gesture similar to *Motive a*. The modification reflects interval qualities of major third and minor sixth, rather than those originally stated (minor third and augmented fifth). The peak of the gesture is joined by the entrance of a B-flat minor triad in the accompanying clarinets on the third beat of bar 235. Saxophones and bassoons layer an F-major triad to the clarinets B-flat minor, and the flute quickly trickles down a B-flat harmonic minor scale, disappearing into the third degree of the F-major chord that remains. Tonal ambiguity gives a sense of unresolved plagal relationship, which diminuendos into further fragmented piano work in mm. 237-241. Electronics give an accented sound effect on beat two of m. 241, as though a shooting star appears for a brief moment, while F's shadow continues to hovers.

Densely presented woodwinds reiterate the first theme at bar 243, melodically similar to the preceding statement in its climb toward the lowered sixth scale degree. Voicing is closed in each of the statements, and as each phrase weaves toward the prominent pitch of D flat, a poignant G-flat major subdominant chord surfaces in m. 247; but the melody lingers on the pitch of C. Thus, the melodic retardation of C to D flat prolongs a recalled Lydian mode of Movement II, then upwardly resolves in the flute, oboe, and clarinet. Resolution is, however, blurred again as the piano prolongs the

Lydian C for a third beat before resolving on beat four of the measure, where it is joined by harp and vibraphone for added shimmer.

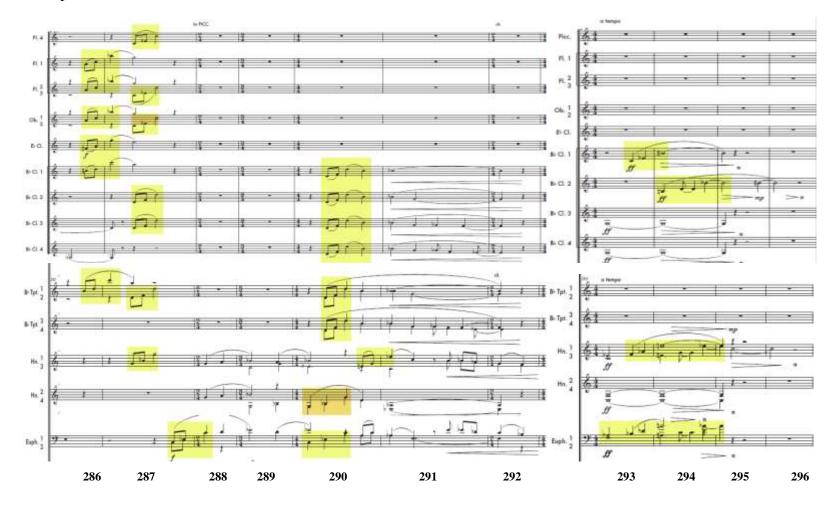
Harmony shifts to B-flat minor in bar 248, and then give a plagal cadence of sorts, moving toward F major in m. 249. Yet the cadence is left unresolved as D-flat major is still strongly present, blurring the harmonies with these dueling chromatic mediants. A strengthened presence of D-flat major permeates the inner voicings of third clarinet and tenor saxophone, who sustain a D flat while flutes descend a D-flat major scale. Piano, harp, and vibraphone present improvisatory gestures suggestive of both F and D-flat major in mm. 249-250. In bar 251, mediants relationships fully retreat toward an A, which sustains over the electronic drone of F, finally settling into F major. Rhythmic interplay makes this phrase incredibly engaging for both listener and performer.

The clarinet "earworm" from the opening movement reappears at m. 252, transposed a major second higher and paced slightly slower, quarter note equal to forty-four beats per minute. Sound effects as well as a sustained F occur in the electronics throughout the clarinet's theme. Measure 264 is marked *a tempo* and fully reiterates m. 28 from the opening movement, maintaining the transposition from m. 256. Intertwining improvisatory melodic lines in clarinet and flute dance above the elusively morphing harmonies, leading to the return of the first theme, noted by its opening use of *Motive a*, bimodality, and motivic interjections from the horns at phrase breaks. Orchestration is also repeated, subsequently using the consorted voicings of woodwinds (m. 275), brass

<sup>86</sup> See Appendix B, "Conversations with Gary Hill about *The Automatic Earth*."

(m. 279), and full winds (m.283). Bryant detours from the repeated material of the first movement in this full-winds statement by thickening the ensemble, adding saxophones as well as tutti flutes and clarinets, thus creating a more colorful sonority. Euphonium and E-flat clarinet are not included at the onset, but each joins with its own statement of *Motive a* momentarily. This third iteration of the melody boasts a codetta-like extension that intensifies its harmonic dissonance through chromatic transformations. This is led by the ensemble's passing exchange of *Motive a*. Example 5.13 shows the dramatic saturation of *Motive a* in mm. 286-296.

Example 5.13: *The Automatic Earth*, Mvt III, mm. 286-296<sup>87</sup>



<sup>87</sup> Bryant, The Automatic Earth, 33-34.

The F-major chord in m. 296 dissolves into electronics for a timed frame of fifteen seconds before the solo piano gives final breath to its motives from the movement's beginning. However, before Bryant transitions, he cunningly shifts the droning electronic pitch from F to A. Second clarinet and the electronics cause the pivot when they strike an A natural on beat four of m. 295, which then continues to sustain in the electronics while winds, piano, and percussion fades to niente. This causes the piano motives at m. 298 to project a harmonic function of A major instead of the once familiar F major. Harmonies drift to A minor in m. 303, then back to A Major in m. 304; yet bimodality remains a constant presence in the work. The final three bars of the movement (mm. 304-306) present *Motive b* in four ascending half notes (C#, D, E, F) and reminds listeners of F once being a tonal center as it sounds alongside an A on the piano and unexpectedly doubled in the electronics. This moment is shown in Example 5.14.

Example 5.14: The Automatic Earth, Mvt III, Motive b tonal shift, mm. 304-30688



The piano and electronics recall the F chord from the movement's beginning and the final resolution is delayed beyond the transition into Movement IV, where the air blown effect

<sup>88</sup> Ibid., 34.

from the winds accompanies a decisive open fifth interval (A and E) in the electronics of measure 307. Figure 5.5 reflects the formal structure for Movement III of the work.

Figure 5.5: The Automatic Earth, Mvt III, Formal Structure

Sections	Features	Measures	Keys
Introduction	Improvisatory piano interlude, explores motives	203-220	A Major / A Minor
Introduction			F Major / F Minor
A	Woodwind chorales and piano interludes alternate motivic expression	221-251	F Major / F minor
			A Major / A Minor
В	Improvisatory clarinet, restatement in new harmonic space, followed by canon-like polyphony	252-274	F Major / D-flat Major
С	First theme, <i>Motive a</i> , <i>Motive b</i> , extended motivic development and intensified dissonances	275-297	F Major / D-flat Major
Transition	Improvisatory piano interlude, exploring existing motives, with drone and tonal change to A	298-306	A Major / A Minor / F Major

## Movement IV – "The Automatic Earth"

A wind-blown sound effect begins "The Automatic Earth" in m. 308, and the tonal center of A takes its dominant stance by an electronic drone that pulsates for a twenty-one second timed frame. The ensuing episode in mm. 309-332 bursts with various sound effects, some revisited from earlier in the work, others presented for the first time. Blurring pitch and rhythm continue to be a leading compositional technique

and the primary motive for this movement is the ascending four note motive (*Motive b*) first introduced in Movement I. Integrated alongside *Motive a* in various ways, the interval quality and sound of *Motive b* are too alluring to not become part of the magnetic listening experience offered by this work. The motive's intervals are symmetrical and octatonic in quality; they represent the duality of modes, using a major third scale degree as its starting point and a minor sixth scale degree as its highest pitch. Example 5.14 shows *Motive b* presented by the alto saxophone, blurred by the accompanying saxophone family in mm. 309-310. The motive is then immediately inverted in bassoon, bass clarinet, and double bass (mm. 311-313), similarly blurred by the horizontal motion being offset by an eighth-note value.

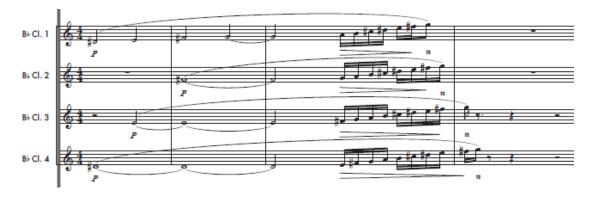
Example 5.15: The Automatic Earth, Mvt IV, blurring Motive b, mm. 309-31389



<sup>89</sup> Ibid., 35.

A second expression of *Motive b*, shown in Example 5.16, sounds in clarinets at mm. 317-320, blurring the harmonic space by adding one sustained pitch at a time, eventually resulting in a four pitch cluster chord that simultaneously ascends and diminuendos to niente. Example 5.16 shows this second expression of *Motive b*.

Example 5.16: The Automatic Earth, Mvt IV, blurred harmony, mm. 317-320



The opening section of this movement also requires various extended playing techniques from the saxophones. In m. 317, multiphonics using B flat as the primary pitch are requested at a dynamic of pianissimo, occurring three times within a span of eight bars. Saxophones use flutter tonguing or growling in m. 323 to spark an ascending rhythmic explosion joined by bassoons, clarinets, bass clarinets, and the double bass seagull effect. Each of these gestures alternate with bass and contrabass clarinet's accelerated then decelerated articulation. In contrast, texture of these dissonant, undulating sound effects is softened by the subtle ongoing presence of a soothing drone in the electronics. One should also note the conductor is provided a click track through an in-ear monitor to assist with pulse management during the blurred, fluid section.

These types of extended playing techniques and the audio click track will be discussed in greater detail in the following chapter.

Pivoting toward more melodic sound at m. 329, clarinet and flute begin a varied statement of the first theme in octaves, softly projected over the awkwardly rhythmic electronic pulse that usurps the droning A. The first three notes of the melody deceptively portray *Motive b*, but Bryant shifts in hybrid-like fashion to the minor sixth interval (F sharp to D natural) in m. 330, reflective of *Motive a*. Full expression of *Motive b* ensues in mm. 331-332, only hinted moments before; the motive carries an unresolved harmonic suspension into the next musical episode at m. 333, based on the clarinet's sustained F sounding over the imaginary-yet-inwardly-heard electronic drone of A. The implication of the drone is reinforced by a rhythmic piano and percussion ostinato loosely based on *Motive a*'s consistent nag of harmonic dissonance. Once the clarinet suspension resolves from F to E, the inference of bimodality between A Major and A minor is in full effect. The clarinet proceeds with another statement of *Motive a* followed by an ascending fifth interval of E to B, and completed with a quick F natural-E-A (bVI-V-I) cadential gesture.

Transitional blurred effects account for mm. 341-348. First, clarinets and oboes intermingle with modified offerings of *Motive b* and *Motive a*, which are stylistically juxtaposed to the ongoing percussive ostinato. Augmented rhythms in the glockenspiel also provide a blurring of harmonic function and rhythmic precision, as softer mallets are used to blend with the other ostinato voices. Second, clarinets pair with harp to blur pitch and harmony in m. 347, employing diminution as the ascent of m. 317 repeats more

affluent representation of the movement's harmonic palette. Example 5.17 shows this full pitch collection and its subparts are discussed in the following section.

Example 5.17: The Automatic Earth, Mvt IV, pitch collection, mm. 347-34890



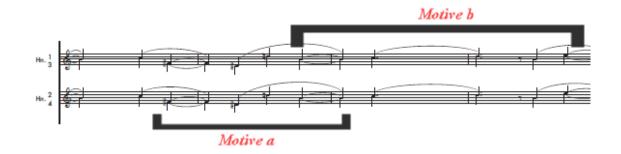
As previously mentioned, octatonic qualities are strongly represented in the initial tetrachord (C#, D, E, F; *Motive b*), but the second tetrachord of the passage is Lydian in quality (G, A, B, C#), and completes the hybrid pitch collection. Overlapping the final saxophone multiphonics, this scale is accompanied by a quick motivic cadence in pizzicato double bass, bassoon, and piano. This bass figure gives potency to the  $\flat$ VI–V–I melodic cadence as described above, which occurs during a two-measure gap of the mechanized ostinato from percussion.

Moving forward in m. 349, a new layer of marimba is introduced into the rhythmic ostinatos, prolonging the tug of war between major and minor modalities. Nearly undetectable saxophone swells announce more varied melodic content from the horns, who provide a sustained lyrical passage. The line cleverly disguises motivic materials from within the work. A shuffled note order of *Motive a* (mm. 353-354) and a

<sup>&</sup>lt;sup>90</sup> Ibid., 40.

modified interval in *Motive b* (mm. 354-356) each bring Bryant's motivic development to the foreground. Example 5.18 shows these modifications.

Example 5.18: The Automatic Earth, Mvt IV, modified Motive a/b, mm. 353-35691



Harmonies depict bimodality once again, with A major and A minor alternately outlined, and Bryant uses the hybrid pitch collection previously discussed. Both tools help cast a strangely familiar yet modified melodic line in the horns. As accompaniment, Bryant sprinkles recycled sound effects. Accelerated then decelerated articulations of D flats (tonally interpreted as C#) in bass clarinet and double bass pizzicato sixteenths (C# and C) each outline the harmonic shifts in the marimba ostinato.

Instrumentation grow in m. 358 as the low brass and low reeds join the percussive industrial sounds. Tenor and baritone saxophones produce sustained growls as they combine with low brass to project darkly tinted timbres. Trombones are additionally asked to flutter tongue through this passage, giving a coarse texture to the tone color.

<sup>&</sup>lt;sup>91</sup> Ibid., 41.

This same harmonic dialect continues as support of the next phrase (m. 365), where horns restate the opening theme from m. 47 and cast roles for *Motive a* and *Motive b*.

As Bryant has done throughout the work, he modifies the original version of the theme; mostly rhythmic adjustments give the theme a more syncopated, mechanical feel. This syncopation coordinates with the industrial ostinatos present in percussion and continues through the end of the melodic line at m. 373, persisting until they all merge to a final C-sharp and diminuendo to pianissimo. Bryant then reveals perhaps the most anxious moment of the work – a knocking-like sound effect that emulates the sound of a ticking time bomb. In doing so, he specifically recalls his first electroacoustic work for wind band, *Ecstatic Waters*. In subtraction from the clicks, the buzzing drone also completely drops out of the texture, leaving just five lonesome clicks through which listeners must anxiously wait.

Thirty-second notes in the woodwinds, trombone and harp glissandos, and electronic siren effects serve as the anacrusis for the onslaught of m. 382, at which point the work reaches full climax. Flourishing polyrhythms in the woodwinds, accelerating articulations in percussion, dissonant polychords, and familiar motives mark the section as the culminating musical event. According to Bryant, this section from mm 382-395 was composed first of all materials for the work, thus aiding in its summative personification of harmonies, motives, and powerful speech. Bryant requests the ensemble perform at *ffff* and he includes a staggering amount of percussive and

<sup>92</sup> See Appendix A, "Conversations with Steven Bryant about *The Automatic Earth*."

electronic sound. Fifth percussion part is asked to strike two tam-tams simultaneously. Fourth percussion part requests two suspended crash cymbals (one large and one small) be played by a single player. And the operator of the mixing console is asked to manually bring up the house speakers during this section of the work. One might describe such a conglomeration of sound as "offensive". When asked if this was the correct way to describe the moment, Gary Hill emphatically responded with, "Oh absolutely! [Bryant] wanted to disturb people, really disturb people, at this moment." From this author's perspective, having attended the world premiere of the work in Tempe, Arizona, the desire is fully achieved. Lighting effects – not necessarily prescribed by the composer, but optional for future performances of the work – added much to the intensity of the music. These lights were blindingly shot from the stage in conjunction with the blast of the electronic siren from the house speakers. If Bryant had his preference in the performance of the work, the lighting would consist of multiple sets of blinders<sup>93</sup>, a kind of high-powered strobe lighting, projecting toward the audience during this phrase. Collectively, Bryant stages the climax to confront his audience's blind eye and deaf ear toward problems surrounding them, as if to distressingly ask, "Can you hear me now?" or "Do you see it now?" As Hill describes Bryant's ideas for lighting as quite cost prohibitive, he acknowledges that they would certainly make the performance of the work even more disturbing, almost like "being inside a crime scene

93 See Appendix B, "Conversation with Gary Hill about *The Automatic Earth*."

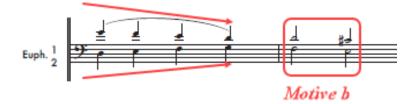
from every seat."<sup>94</sup> Bryant's invitation is for the audience to truly consider the troubles that our world faces.

Aligned with the themes of dissonance and disturbance, Bryant uses an A splitthird chord, placing both C natural and C sharp in the harmonic sonority. Suspension of harmony begins the phrase, with the lowered sixth scale degree of F resolving downward in upper woodwinds, brass and percussion, while the bass voicings project stably on A. Low brass, low reeds, and the pianist's left hand follow in mm. 383-384 with an authoritative statement of *Motive a* and *Motive b*.

Measure 386 shifts in harmony to a subdominant D minor, but still incorporates the suspension-resolution qualities in the melodic line. Melody and bass move in contrary motion at m. 387, resembling *Motive b* in horizontal and vertical gesture, shown in euphonium parts in Example 5.19. The subdominant D minor cadences back to A, removing the split-chord dissonance for a clear, rich A major resolution to close the phrase. Percussion additionally present accelerating articulation through a rhythmic progression of quarter, eighth, triplet, and sixteenth notes in bass drum and timpani.

94 Ibid.

Example 5.19: The Automatic Earth, Mvt IV, Motive b harmony, mm. 387-38895



Various other complex dissonances appear in the climax's second phrase at m. 389. To begin, a flourishing chromatic descent recalibrates the harmonic space down one semitone, as listeners joltingly shift to an A-flat tonal center. But one cannot bypass the sloped twelve note tuplet as simply a horizontal blur. The vertical sonority in each note in the grouping represents the split-third chord construct of *Motive a*. Example 5.20 shows the expression from m. 389 (drawn from oboe and bassoon parts). Figure 5.6 shows the relationship between the split-third harmony (*Motive a*) and that of the tuplet harmony, using its first vertical sonority as the source of comparison. This reflects *Motive a* in a different way and highlights Bryant's incessant use of it as both a melodic and harmonic device.

<sup>95</sup> Bryant, The Automatic Earth, 47.

Example 5.20: The Automatic Earth, Mvt IV, split-third Motive a, mm. 38996

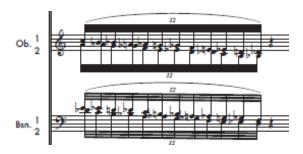
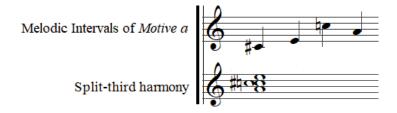


Figure 5.6: The Automatic Earth, Mvt IV, Motive a vertical expression, m. 389



An ensuing use of offset rhythms and chromatically altered harmonies blur and distort any possible pleasantries one might have expected at the work's onset. The chromatically transformed harmonic progression in mm. 389-395 act as a morphing amoeba, melodically and harmonically nosediving with each passing gesture, as though the control room were negatively spinning the ensemble's audio modulator. While this downward spiral occurs in the winds and piano, the percussion parts sound an even more complicated set of accelerating attacks, with the addition of metal sheets for greater intrusion on the rhythmic comforts for both performer and listener.

<sup>96</sup> Ibid.

Motive a forcefully stabilizes the musical event. The first sequential use comes in m. 389 from clarinets, trumpets, and horns, immediately followed by a descending line blurred by chromaticism and offsetting syncopated motion. The second, m. 390, utilizes a Klangfarbenmelodie event. The half note B in first bassoon, first bass clarinet, tenor sax, and first trombone serve as the first note of the motive; the E-flat clarinet, alto sax, trumpets, and horns all respond with the remainder of the motive followed by the blurred descent similar to the first episode in the sequence. A difference here is the second sequence uses an augmented interval in Motive a (a major sixth between the second and third note), as though the line is stretching to reach the surface of the water while sinking the pool. A third occurrence is approached similarly, same instrumentation, same intervallic expansion (to a minor seventh between the second and third note), and same downward spiral in tonality. Each attempt stretched a little farther; each unsuccessful in turning the sinking ship. Example 5.21 gives a glimpse into this sequence of Motive a.

Hn. 2

Mortive a Flutter-tongue cresc. poco a poco

Ton. 1

Major 6th Interval

Major 7th Interval

Example 5.21: The Automatic Earth, Mvt IV, mm. 389-393<sup>97</sup>

<sup>97</sup> Ibid., 47-48

Measure 394 brings the most disturbing and dissonant sounds of the work. As percussion complete the accelerated attacks discoursed over a few bars, the pianist is asked to tremolo between two cluster chords at the bass end of the piano. Simultaneously, the piccolo, E-flat clarinet, alto sax, tenor sax, trumpets, trombone, and euphonium all share in the last *Motive a* occurrence of the climactic sequence. Three compelling markers stamp this final statement of *Motive a* as the grand gesture of the work: 1) it is approached by a leap in register and brightening of tone color; 2) it crescendos to a **ffff** finish; and 3) it prolongs the suspension on the final note of the gesture with a molto ritardando on the highest pitch. Here, Bryant's dramatic flair shines through his compositional process. The final cadence gives another densely scored polychord. Much like the end of the second movement, the chord in m. 395 incorporates chromatic mediants F major and A major, projecting similar density and dissonance when directly compared to the chord at m. 201; however, the orchestration of the chords is quite different, projecting dissimilar need for resolution. The chord at m. 395 is more abundantly clothed in the pitch of F, particularly in the upper voices of each instrumental grouping. This saturation of F, combined with the strong bass presence of an open fifth A and E, causes the climactic chord to stand in greater need of potential resolve. As this author's aural expectations are persuaded, the yearning to resolve F downward to E is strong. Yet, the presence of the F is resolute and unyielding to any desire of removing the dramatic tension in the work. Though Bryant prefers not to have programmatic inferences assigned to his music, the stronger influence of F in the polychord for this writer could suggests stronger presence of looming social problems. The lack of resolution in the music perhaps indicates humanity's inaction toward solving such

dilemmas. The movement ends with a with a thirty-five second space of silence and allows the explosive dust to settle. Pre-recorded clarinet fizzes *Motive b* (C#, D, E, F) from the electronics. The simple fact this gesture is pre-recorded harkens back to the early pioneers of electroacoustic music, such as Karlheinz Stockhausen and his *Gesang der Jünglinge*. But it also speaks to the dramatic blurring effect that Bryant uses in his compositional process, as listeners must grapple with the *realness* of the sound being heard – is it from live performer or electronic effect? Figure 5.7 represents the structure of Movement IV.

Figure 5.7: *The Automatic Earth*, Mvt IV, Formal Structure

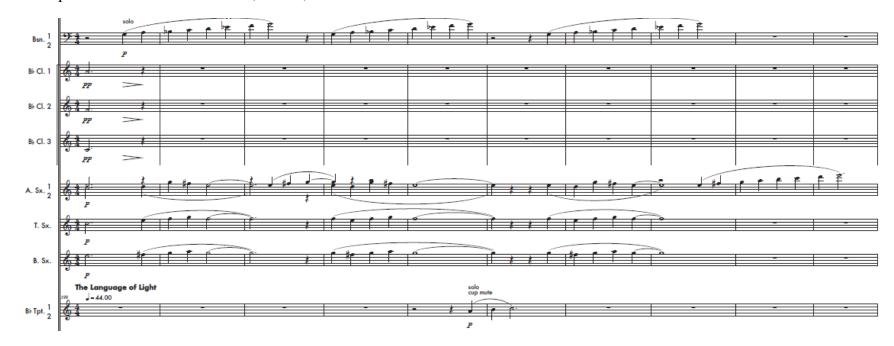
Sections	Features	Measures	Keys
A	Ethereal effects, extended techniques, and hybrid <i>Motive b/a</i> statement in clarinet	307-332	A Major / A Minor
В	Cl, then cl/ob <i>Motive a</i> , piano, harp, percussion ostinatos, with electronics	333-348	A Major / A Minor
С	Horn melody, modified and improvisatory posture of <i>Motive a</i> and <i>Motive b</i>	349-358	A Major / A Minor
Transition	Flutter Tongue chord progression in low voices with percussion and electronic ostinato	358-364	A Major / A Minor
D	First Theme (more syncopated and rhythmic) in horn, <i>Motive a</i> and <i>Motive b</i>	365-373	A Major / A Minor
Transition	Ostinato fades into single sound, clicks of foreboding	374-381	A Major / A Minor
D'	Climax of the entire work; split-third harmonies; <i>Motive a</i> and <i>Motive b</i> with woodwind flourishes	Beat 4 of 381 – 395	A Major / F Major
Transition	Climax Chord fades for 45 seconds into the electronics, disintegrating to only a electronically produced clarinet statement of <i>Motive b</i> (C#, D, E, F)	395-397	A Major / F Major

## Movement V - "The Language of Light"

In complete contrast to the dissonant, thickly textured score, the fifth movement, "The Language of Light," beckons the return of clarity, in both density and melodic simplicity. Things are familiar, yet oddly different. The musical contrast here is, for this author, the summary of what Bryant communicates throughout the work. He specifically recalls motives, harmonies, and compositional techniques to establish unity, yet realize something has changed.

The movement begins in m. 398 with single reeds whispering a surprising, pianissimo E-flat major chord in first inversion. The pre-recorded *Motive b* that finished Movement IV on an F carried an expectation of downward resolution to E. In contrast here, Bryant redirects the resolution up to G, sounding the third of the E-flat chord. As the clarinets fade away, the saxophones continue with a statement of the second theme, connecting immediately to Movement II, though much slower, marked here at quarter note equal to forty-four beats per minute. As the saxophones state four iterations of *Motive c*, the bassoon proposes a simple, sweetly ascending melodic gesture. E-flat Lydian is quickly established as the mode of choice, but its alter ego of G minor is apparent in the melodic line. Bryant tampers with tone color and orchestration throughout the opening melodic ascending line (reflective of *Motive b*, but simplified to a natural minor mode), which expresses Schoenbergian Klangfarbenmelodie, passing from bassoon to alto saxophone, bassoon to muted trumpet, bassoon to alto saxophone. This fully establishes a sharp contrast in contour to the accompanying *Motive c* in the saxophone choir. (See Example 5.22)

Example 5.22: The Automatic Earth, Mvt V, mm. 398-40798



<sup>&</sup>lt;sup>98</sup> Ibid., 49

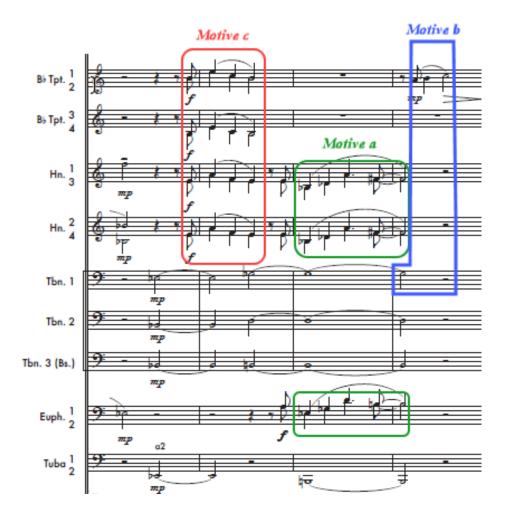
The final statement of the E-flat Lydian / G minor passage is in mm. 408-412, where Bryant further distorts his gesture by shifting from bassoon to trumpet and alto saxophone while alto saxophone delays by one eighth note of time, giving the often used blurred effect of dramatic and dissonant tension. The trumpet and alto saxophone are joined by the oboe in the final three notes of the ascent, punctuated by the metallic sound of Harmon-muted trumpet, thus exhibiting firm control of tone color transformations.

A sustained G from m. 412 melts into a C Major tonality (with an added second scale degree), and mm. 413-422 reunite listeners with a faint memory, recalling the misplaced tenderness of measures 89-92, and the modified *Motive c*. Constant ambiguity of the split-third chord is eradicated here by the absence of any third scale degree in the initial chord, but only for a moment. Tonality shifts to C Lydian in the phrase, as clarinets, horns, euphonium, and trumpet all exchange in the tender dialogue. A lushness is provided through Bryant's use of closed voicings and secundal harmonies in both the clarinet and horns. C Lydian's alter ego G major allows for cadential function in m. 423. The first half note presents a C-major chord; the second is a D-major chord (enharmonically disguised), each carrying an added ninth. However, the next chord brings a deceptive cadence in m. 424, as Bryant solves the transitional riddle by shifting to the chromatic mediant of E-flat Major. He also sprinkles the pitch A, voice of the Eflat Lydian mode, into the fourth clarinet part for a small taste of dissonance, as well as the added second degree of the chord in the second clarinet and second alto part. Though harmonically a bit unsettling by his use of these added pitches, this shift transports the work back to its original harmonic palette, with the tonal center of E-flat.

The ensuing four measures, 425-428, bring abrupt harmonic changes, altered again by chromatic transformations. Bryant revisits the chromatic mediant relationship of E-flat and C-flat major (enharmonically spelled). His portal for transformation passes through the hexatonic pole of B minor, then alters to B major. This is followed by three ascending pitches of G, A, and B-flat from flute and trumpet. The peak pitch (B flat) longingly sustains, then collapses into the clarinet's E-flat major chord at m. 428 in dominant-to-tonic fashion. Yet still, the authentic cadence is a bit unsettled in first inversion with an added second scale degree. This chord serenely sustains for six beats.

During these harmonic encounters described in mm. 425-428, the trumpets, horns, and euphoniums are in charming dialogue, their melodic statements representing each of the main motives from the work. The modified form of *Motive c* appears in trumpets and horns at bar 425, followed by *Motive a* in m. 426 for horns and euphoniums, completed by a recalling fragment of *Motive b* from trumpet and flute. This motivic recapitulation is shown in Example 5.23. All work together to establish the split-third quality of C-flat and peacefully settle into the same E-flat Major clarinet chord that began the movement.

Example 5.23: The Automatic Earth, Mvt V, motivic recap, mm. 424-42799



The final section of this work serves as a coda in which the work's motives summarize Bryant's dialogue. Measure 430 brings a verbatim return of m. 13. That which seemed like unconnected musical gestures from a solo clarinet returns as the closing line of a personal letter. The clarinet shifts in tone color, passing the baton of

<sup>&</sup>lt;sup>99</sup> Ibid., 51

as blossoms. Clarity resonates. Quietness is certain as the work finishes. Yet, the underlying truth is that transformation abounds – small unnoticed adjustments add up to stark modifications. The passing glance of G major has occurred prior to this moment in the work, but gone perhaps unnoticed. As the work comes to a close, G major appears in chromatic mediant fashion. While flutes sustain their concluding E-flat major chord at m. 440, the clarinets reenter and sustain a G major chord above the reappearing electronics and haunting percussion and piano ostinato figures. The eight-measure ostinato navigates the space intended by Bryant's duality of modes. G major and G minor are both tonally presented as the work diminuendos and descends to its final octave of G's in the piano. The electronics move to the fore during the final fermata with a swarming white noise sound effect, and an abrupt release into silence after the intense resurgent build. Figure 5.8 provides the formal structure of the fifth movement of the work.

Figure 5.8: *The Automatic Earth*, Mvt V, Formal Structure

Sections	Features	Measures	Keys
A	Motive c in alto saxophones with ascending Klangfarbenmelodie line	398-412	E-flat Lydian
A'	Horn and Euphonium melodic statement using modified forms of <i>Motive c</i> , in contrary motion.	413-422	C Lydian
B "Final Recap"	Modulatory half notes, followed by recap of harmonic dissonance and <i>Motives a</i> , <i>b</i> , and <i>c</i> .	423-429	G Major / C-flat / E- flat Major
Coda	Clarinet solo fragment and unsuspected modulation to G major with percussion, piano, and harp ostinato to close the work; electronics crescendo for the last musical bid and release.	430-448	E-flat Major / G Major / G Minor

#### CHAPTER 6

### Performance Perspectives

Any performance of *The Automatic Earth* is a derivative of three equally contributing bodies of performers. The utmost in preparation and communication among each of these groups is vital to a successful performance of the work. The first, and lead coordinator of all others, is certainly the conductor. Acoustic performing members serve as the second. And thirdly, each electronic operator is critical to the successful performance of the work. Electronic operators include responsibilities surrounding the 88-key keyboard, laptop, sound technician, and lighting technician – although the latter is not prescribed in the score, but evident in Bryant's own planning of the world premiere. Each of these three contributing bodies – conductor, acoustic performers, and electronic operators – should be considered an equal partner in the rehearsal and preparation of the work. The following sections strive to assist readers with performance preparations and rehearsal planning by targeting issues and performance perspectives specific to this work. Suggestions are collectively gleaned from personal performance preparation by this author, observations and interviews with Professor Gary Hill and Steven Bryant, and observation of performances of the work.

### Conductor Perspectives and Challenges

Rehearsal and performance of *The Automatic Earth* presents numerous challenges to the conductor. Mental and physical preparations are matched in demand by the logistical planning required for successful rehearsal and performance. With substantial electronic demand, the need for thorough and early communication is one of the primary

keys to success. Conductors are encouraged to understand the electronics set-up in as much detail as possible, being able to communicate with the electronics team about some of the more intricate details in both physical demand and accurate musical execution of the material. That being said, this author finds it beneficial to have three different phases of rehearsals when preparing for a performance of the work: rehearsals with only acoustic musicians; at least one rehearsal with only electronic operators; and multiple rehearsals with both groups together. Approaching the ensemble from this combinatorial perspective allows for musicians to have greater self-awareness in the acoustic responsibilities. It gives specified time for managing probable electronic set-up and execution problems, especially for those performers that may be new to the idiom of electroacoustic music.

In the ideal situation, the performance space would be readily available during rehearsal time, giving abundant opportunity to manage the balancing of acoustic and electronic sounds. However, in the event the space is not adequately available, one should render the rehearsal room electronically identical to the performance space, or as close thereto as possible. Conductors should give specific consideration to the speakers staged behind the ensemble, the spot monitors as prescribed by Bryant on the electronics set-up document for the work, and the specific equipment needed for implementing the in-ear-monitor and click track used by the conductor. The sound board operator is not as critical to the rehearsal space. Matching spaces, perhaps, may necessitate the acquisition of extra equipment to facilitate a suitable rehearsal room, but the end result will be a more cohesive performance.

The musical responsibilities for both acoustic and electronic performers in the work are interwoven such that each demands the presence of the other. Thus, the goal of the conductor's study of the musical score must be to internalize both aspects of the work equally. One problem to overcome with this process is a lack of notation for electronic music itself. There is no standard method for notating the various manipulations posited upon the electronically generated sounds. Therefore, the best way to truly familiarize oneself with electronics in the work is to aurally experience them. A composer-approved video of the University of British Columbia Symphonic Wind Ensemble conducted by Dr. Robert Taylor in Vancouver, British Columbia on November 22, 2019 is currently available on Bryant's website. The conductor must be familiar with various timbres, textures, and rhythms present in the electronic sounds. Another way to manage learning the electronically produced music for interpretive purpose is by listening to the electronic files only. Conductors receive these files through an email link from Bryant upon the rental of parts and purchase of score; files are then imported into Ableton Live<sup>TM</sup>, discussed below.

Acoustic performers developing an awareness of the electronic sounds is both a helpful and enjoyable component of the electroacoustic journey. Having the entire ensemble together for most of the performance preparation will provide a space for natural discovery. Guiding acoustic performers in every detail of the electronic soundscape is not necessary early in the process. However, early mindfulness of electronic sounds does prove helpful for acoustic musicians, greatly increasing rehearsal efficiency as well as performance effect. For instance, balancing and tuning chords are rather simple processes; yet, in the case of *The Automatic Earth*, it becomes a delicate

matter due to polychords and bimodality. Mingling with the shifty drones and ostinatos in the electronics aids acoustic players in navigating the difficult requirements. Secondly, transitions often require ensemble awareness, such as the abrupt tempo change prompted by electronic pulse at m. 59. A third example is mm. 398-413, which requires tremendous sensitivity to the quality of tone color used, as the electronic sounds (sometimes pre-recorded versions of acoustic instruments) weave in and out of the acoustic performance. Finally, the awareness of dynamic extremes should be communicated early. Monitors placed around the ensemble assist performers at several points in the work, allowing audibility of the electronics during these precarious events. Particularly in the fourth movement, mm. 333-379, the pianist, harpist, and several percussionists must align rhythmically with the electronic part, requiring dynamic subtlety along with intricate timing. Consistent full ensemble work during these types of moments is essential for effective performance.

The Automatic Earth contains few full ensemble statements, making perhaps the introductory rehearsals a bit mundane if the ethereal spaces are the focus. Conductors should plan initial rehearsals in a spirit of engagement, giving performers an opportunity to grapple with the unique harmonic and motivic demands of the work. The ethereal and quasi-improvisatory qualities of other sections should naturally develop out of holistic understanding. Several extended technique requirements for performers slow the rehearsal pace if too much time is given to tweaking and perfecting these effects. Rather, the conductor should consider creative methods of managing these necessary details, such as meetings outside of rehearsals with those individuals facing such requirements, if the need arises.

Electroacoustic music has responded to the current advancements of technology. *The Automatic Earth*, like many other works, requires the conductor to wear an in-ear monitor, as the audio interface (required in the electronic set-up) sends an audio click track to only the conductor's monitor. The purpose of this metronomic click in the conductor's ear is to aid the conductor in aligning gesture with electronics. Therefore, the conductor must align each ictus with the click heard in the in-ear monitor. A variety of complexities must be considered when working with this type of equipment. The following discussion will focus on such matters, specifically regarding the unavoidable parameters in this work.

Bryant does a masterful job providing creative space along with the hem of the click track. Because the click track is not involved through the entire piece, nuance and rubato are all possible expressions of the conductor's interpretation. By using Ableton software, a top-rated digital audio workstation used for music sequencing, Bryant allows all electronic sounds to be triggered by a live performer. The roles of this performer will be discussed in greater detail later in this chapter, but understanding the "live" actuation of the sound is an important factor for the conductor. There are times within the work that tempo can be flexible, but as the conductor draws near moments involving the click track, a supreme awareness of tempo is required. Bryant provides ample time for the conductor's responsiveness to such a hem, as the laptop performer triggers the clicks one or two bars prior to the moment alignment must occur. Knowing this, the responsibility of the conductor remains. One must adhere closely to the tempo markings in the score, but slight variances are manageable, within a range of four to six beats per minute.

Otherwise, odd hiccups in time will occur as the conductor begins to align gesture with

in-ear click, certainly noticeable to the ensemble, and possibly even visually recognizable by the audience. One place to be keenly unwavering in gesture-to-click alignment is the quiet, rhythmic section in the fourth movement (mm. 333-379). This section has potential for many timing problems and the conductor must be sensitive in balancing the monitors for each individual performer in need, as well as coping with pulse alignment of performers. Giving full attention to the demands of this section results in a more comfortable marriage of the two sound worlds.

Another click track difficulty comes at the climax of the fourth movement, as the sheer dynamic volume of the ensemble will more than likely exceed the conductor's ability to hear the click. This section must be rehearsed at full volume at least a few times, with the click track, in order for the conductor to be cognizant of any possible inaudibility. The problem is also enhanced for the conductor as the tempo shifts from fifty-eight beats per minute to fifty-four beats per minute. Such a slight reduction is difficult to manage if not adequately rehearsed by the conductor both alone and with the ensemble. Hill suggests using the electronics performers to visually give the beat references to the conductor at this point, jokingly speaking of an on-stage drum major. All joking aside, pragmatically, the conductor may very well need the assistance, based on four factors: 1) not being able to hear the click track, 2) not needing to dangerously increase the volume of the click track for hearing health purposes, 3) not wishing to reduce the volume of the ensemble sound for purpose of musical intent expressed by the

<sup>100</sup> See Appendix B, "Conversation with Gary Hill about *The Automatic Earth*."

composer, and 4) hoping to be "spot-on" at one of the most important statements of the work. Conductors should certainly explore this possibility as they approach this portion of the work.

Other factors of hearing and processing arise when the conductor is giving attention to the click track in rehearsal. Acoustic performers' nuances, balance, and other musical sensitivities become lost at times, as judicious hearing decreases when one ear holsters the click track monitor. This author is unaware of any circumstance that would require the conductor to wear both ear pieces, and therefore strongly suggests wearing only one. Even then, the sacrifice of hearing the ensemble becomes problematic. Thus, nuance and subtlety should be discussed prior to the use of electronics, and still frequently visited once the full performing ensemble comes together.

In *The Automatic Earth* Bryant uses mostly slower tempos with the exception of the second movement. Metaphorically, one interpretation of this compositional decision could be stated as Bryant's desire to acknowledge two things: 1) the slow, almost undetectable, rate of change in the environment, and 2) the slower response time from mankind in addressing the issues at hand. Regardless of the narrative, forty-four beats per minute, the slowest tempo of the work expressed in the second iteration of the clarinet solo and fifth movement, is difficult from all performance angles. Movements I and III present slight concerns for the brass players as well, requiring a slow, long line of exposed chorale-like chords (m. 43 and m. 279). The conductor must be aware of this potential difficulty and prepare to move forward in tempo eight to ten beats per minute, aiding brass execution in these specific bars, if the need arises. Table 6.1 provides a quick glance at the various tempo markings in the work.

Figure 6.1: The Automatic Earth, Tempo Markings

Movement Title	Tempo Marking	
A Slow Fire	<b>J</b> = 48	
Days of Miracle and Wonder	<b>J</b> = 144	
Shining of Shadow	J = 48 / J = 44	
The Automatic Earth	J = 58	
The Language of Light	<b>J</b> = 44	

Unfortunately, the inherent nature of most conductors and performers is to rush slow tempo markings such as these. Unwavering commitment to subdivision, use of a metronome, and unified ensemble pulse must often be addressed, during both individual practice for conductor and acoustic performer – then probably again, collectively, during full ensemble rehearsals. Doing so will result in fewer problems when introducing the electronics to the rehearsal space.

Similar patience becomes virtuous in the many "timed" transition frames. The close proximity of sixty beats per minute to each of the tempo markings above poses minor challenges, so rehearsal of "timed" silences should also become a factor of the conductor's preparations. Internalizing the electronic gestures in these transitions will assist as well. The conductor should also note the relationship between the first two movements, as the triplet subdivision of forty-eight beats per minute becomes the quarter note pulse at 144 beats per minute. Internalizing the triplet in m. 58 aids in the tempo change and conquers the challenge of alignment with the electronics part and its entrance in m. 59.

Understanding Bryant's improvisatory approach to his compositions becomes important as the conductor approaches this work from a performance perspective. The scoring is often reflective of this compositional mindset. The sound effect events in Movement I and IV, the clarinet solo passages in the first, third, and fifth movements, and the piano solo bookends of Movement III are all examples of this type of musical process. Each one of these events should possess improvisatory performance quality to reflect Bryant's writing style. Conductors armed with this understanding should use a conducting style that is less prohibitive of time variance, and more subtle in visual character. This becomes a delicate balancing act. The need to keep ensemble members unified in these difficult spaces, and the need to keep connected to the presence of the click track (sounding or upcoming) brings certain anxieties. Many conductors might initially respond to this type of apprehension by enlarging patterns and becoming more dictatorial in the time keeping space. But the conductor must allow these musical events to occur without overstepping the improvisatory, cadenza-like effects inherent in the music. The electronics part is prepared in such a way that allows for slight variances, as discussed above, and they are equipped with corrective actions should the need arise to stop the electronic audio and restart at the next trigger.

Finally, conductors of this work must address the large amount of difficult melodic intervals required of all performers in the work. Acoustic ensemble members will need guidance in becoming keenly aware of the interchanging responsibilities of minor second and major seventh dissonances versus octave and unison responsibilities.

Although unnecessary to give directives at every dissonant sound, it is helpful to the acoustic performers to be affirmed in their efforts by allowing rehearsal time to hear parts

similar to their own. The climax of the work at the end of Movement IV would be an example of one section requiring this type of directed listening for rehearsals. Here you will find constantly shifting melodic intervals in the variants of *Motive a*, as well as dissonant minor seconds sounding in the same instrument. Of particular difficulty is the second Euphonium part in mm. 382-385, as the performer is required to execute large leaping intervals that land a minor second away from the neighboring euphonium player.

## **Ensemble Perspectives and Challenges**

Acoustic members of any ensemble must deal with a wide variety of challenges when faced with any piece of music. Those challenges vary from player to player and from work to work. Rather than attempt to give every possible challenge for each performer in the work, this section is devoted to presenting an overview of a sample of unique challenges found in this specific work. In doing so, this author intends to help performers find solutions to these unique challenges, as well as aid conductors in becoming aware of the challenges that one may or may not find during score study and performance preparations.

Sound effects saturated in polyrhythms provide considerable demand at times for various performers in the ensemble. In "A Slow Fire," saxophones and clarinets alternate in combination with piano, harp, glockenspiel, and vibraphone to give blurred ascending sound clusters. These each begin with unbridled trills and tremolos and diminuendo to niente. Rhythmic precision and independence are in high demand for each player, while air speed, embouchure, and stroke control are essential factors in convincing achievement. Measure 323 demands similar difficult gestures, but requires the

saxophones to flutter tongue or growl, and includes the bassoons as part of the polyrhythmic demand. Exploration of these specific saxophone extended techniques will occur later in this chapter.

Alongside the opening woodwind gestures in Movement I, trumpets and trombones must handle exposed Harmon-muted parts in mm. 3-13. These are each notated to be played *with stem*, requiring their free hand to cover and uncover the stem steadily. This presents a challenge with tuning and balance. An added layer of difficulty comes as players are required to perform the gesture with a split-third harmony, using an extremely soft dynamic palette. Each of these Harmon-muted moments require a great deal of air speed to support the tone quality of the muted effect, but performers must be aware that Harmon mutes sharpen pitch. Very slightly pulling out the tuning slide will aid intonation of these chords. Players should also attempt to begin sounds without tongued articulation to effectively begin the sound from niente.

Trumpet 1 has two additional muted gestures. The first, a Harmon-muted high A occurs at m. 144, increases the range demand and requires pitch to be in unison with clarinet and oboe; being supported by the ambiguous harmony of split-third chords adds to the demand of the gesture. The second is a very exposed scalar passage using cup mute at mm. 403 and 409. Players volley the scalar passage among bassoon, alto saxophone, and muted trumpet, all using a shared unison pitch as points of exchange. These pass-offs must be handled with much musical care from player to player, complicated by the intonation tendencies of the cup mute, which are quite bizarre. Generally flattening to the pitch, the cup mute offers varying degrees of pitch change, more so than other mutes, dependent on register, equipment, and player. No two

situations are exactly the same. The longer passage at m. 409 encounters each pitch becoming slightly more flat as the trumpeter ascends to high A. Owners of this exposed musical moment must exhibit aural acuity, and sensitive adjustments will inevitably be required each time the piece is rehearsed or performed.

Conductors must prioritize building performer confidence in the many extended technique challenges faced in the work, particularly those orchestrated for saxophones in highly exposed moments. Multiphonics, flutter tongues, growls, and quarter-tone lip bends occur often in the work for this instrument group. Each of these playing techniques presents specific challenges to each player. Once again, much like other playing challenges, equipment, player, and registration are all separate variables that make no two situations alike, but awareness and desire to discover the intended sounds is critical to the work.

Multiphonics (mm. 317, 321, and 325) are two-note, sometimes three-note, occurrences on any instrument accustomed to only creating one note at a time. The characteristic sound of the woodwind technique is not one of consonant pleasure, as the process creates a rapid alternation between two pitches, usually of dissonant interval quality such as minor ninths and major sevenths. For woodwinds, this effect is achieved by using traditional fingerings of notes while opening additional keys somewhere in the middle of the of the air column, causing a disruption in the vibrating air column. Alternatively, one can use full fingering systems for lower notes and lift one of the fingers near the middle of the instrument column to create the effect. Bryant's website states that some variant of the low B-flat fingering on the alto saxophone (varied by

lifting one of the fingers near the middle of the keyed system) "seems to work well," thus achieving the sound effect the composer envisions.

Many personnel involved must meet the challenges of flutter tonging, including trombones, all saxophones, and horns. From exposed moments in alto saxophones (mm. 323-325) to tutti passages in horns (mm. 389-394) these challenges are complex and require very fast air speeds to rapidly oscillate the tongue in its articulating capacity. The composer does allow space for players that struggle with flutter tonguing to substitute a growling effect. Both offer a raspy, pixelated sound, which in this work offer a technological role play. Therefore, the tutti passages should make attempt to cut through the ensemble sound and the exposed moments should not be approached passively.

Bryant requests quarter-tone lip bends on two specific occasions: mm. 134-144 and mm. 317 and 321. The latter occurs simultaneously with multiphonics, each sound effect coming from alto saxophone. The lip bend should be approached with the method described next. First, to achieve the lip bend, players must play the pitch as written with regular, firm embouchure. Then players should lower the pitch of the note by loosening the embouchure, lowering the jaw a bit, and elongating the shape of the resonance chamber inside the mouth. To finish the execution of this technique, players should return to the normalized playing embouchure. These embouchure and jaw realignments must be additionally accompanied by very strong air support; otherwise, the loosened support of the vibrating reed will cause the note to completely collapse. This technique

<sup>101</sup> Steven Bryant, "The Automatic Earth," accessed February 15, 2020, <a href="https://www.stevenbryant.com/music/catalog/the-automatic-earth/errata">https://www.stevenbryant.com/music/catalog/the-automatic-earth/errata</a>.

alone is difficult, yet each occurrence in this work is additionally surrounded by other complexities. In Movement IV, the technique involves a slower tempo, dissonance, and thin orchestration. The gestures in Movement II require the lip bends to occur at a stabilized perfect fourth interval. Performers must be keenly aware of the pacing of the bend, as well as the minimum and maximum of the pitch change in order to execute the request accurately. A margin of error is to be expected and accepted, remembering that one of Bryant's overall compositional tools in the work is blurred harmony and pitch. Nonetheless, a haphazard approach to the quartal lip bend should also be guarded against.

Percussionists must manage a variety of smaller challenges in *The Automatic Earth*. Pitch speed and accuracy of mallet parts, particularly regarding the vibraphone and pianist execution of parts. The sixteenth-note arpeggios throughout Movement II are constructed with slightly awkward fingering and sticking requirements. Numerous bowed sound effects must also be rehearsed for precision. Consistencies in bow tension and bow pressure on the implement (either crotales, tam-tam, gong, or thundersheet) must also be utilized. Bowed parts for crotales are composed with pitch specificity, but Bryant suggests that the choosing of tam-tam, gong, or thundersheet be based on the pitch sounded when bowed. Bryant requests that sounding pitch be a G or G flat at m. 87. In tracking this pitch experiment, the writer suggests using different colored tape on the frog of the bow to keep track of which bow produces the best sound on each piece of equipment. This will also assist rehearsal preparations for percussion, as the bow used will be consistent from day to day. Finally, care must be taken to approach the climaxes with sensitive accuracy. Slow tempos, polyrhythms, accelerating rhythms, and use of

bright metallic sounds could quickly sum up to muddled execution, rather than the composer's intent of blurred rhythms with artistic character.

Brass players are generally challenged throughout the work, as high range and long duration combine to require maturity in embouchure and tone quality. Range, flexibility, and audiation (the pre-hearing of pitches), is paramount in the most difficult places for brass players. For example, in mm. 279-295, sustained tones are mostly required in each brass section, with full dynamic demand and extended ranges. Horns, mm. 349-395, give a second example. Throughout this section, nearly fifty bars in length, the horns present much of the melodic material in a sustained, legato style, displaying wide range and strong maturity in embouchure development. The climax at m. 395 ends with horns all playing high C at the loudest possible dynamic one can express. The endurance required for this section of the work is evident. After a few moments of rest, m. 412 requires the horns to then play a sensitive, lightly-colored G (add 9) chord, secundal harmonies in the lower portion of the instrument's range. Expressive qualities in the entire work can be observed by looking at the requirements of such passages, as Bryant's score demands a consistent maturity in all parts of the work. Even moments of silence and stillness require a mature, focused energy from all performing members of the ensemble.

## **Electronics Perspectives and Challenges**

"The technical details should not eclipse the musical experience." This summarizes Bryant's philosophy of inclusivity regarding electroacoustic wind band music. His evaluative mind created the electronic sounds, which complement the vast array of sound colors possible in the traditional wind band. But there are several technical details that must become a factor in programming the work.

One such factor is the process with which conductors may acquire the work itself. Bryant functions as a self-published composer in that some works are only available from him directly by rental. This is the case for *The Automatic Earth*. Once rented, consumers are emailed all necessary files for a successful performance, including a full score, complete set of parts, and a link for downloading electronic files as needed. Additional information such as up-to-date lists of errata (provided in Appendix C), growing literary excerpts in support of the work's global impact, and other basic details are also available on the website. The ensemble will need to acquire the following: at least the free demo version of Ableton Live 10<sup>TM</sup>, <sup>103</sup> a 4-channel audio interface, <sup>104</sup> an 88-key keyboard

<sup>102</sup> Nix, 96.

<sup>&</sup>lt;sup>103</sup> Ableton Live 10<sup>™</sup> is the latest version of Ableton, available for download at <a href="www.albeton.com/live">www.albeton.com/live</a>. The demo version will fully operate the files needed for performance of the work. Buyers should be aware of the 30-day limit on the demo version in planning for rehearsals and performances.

<sup>&</sup>lt;sup>104</sup> The work requires a 4 output audio interface, but only 3 of the outputs are used. Connections must be compatible with the laptop operating the Ableton Live™ software.

controller synthesizer),<sup>105</sup> a laptop computer,<sup>106</sup> an in-ear monitor,<sup>107</sup> house speakers,<sup>108</sup> main stereo speakers,<sup>109</sup> subwoofer,<sup>110</sup> and monitors.<sup>111</sup> All items are prescribed in Bryant's electronics requirement and setup page available on his personal website.<sup>112</sup>

Original parts plan for one performer to actuate sounds from both the 88-key controller and the laptop. As the piece has received performances in its first year (and based on this writer's personal preparation for performance), conductors are urged to consider adding a second performer to the electronics space on stage – one to perform the 88-key controller and one for triggering the cues on the laptop. The 88-key controller triggers electronic sounds that do not have a firm sense of rhythmic time in the sound

<sup>&</sup>lt;sup>105</sup>The 88-key controller requires USB connection to the laptop, and should also have its own power supply instead of receiving power from the computer itself. Instructions for set-up and software preferences in Ableton Live™ are included within the requirements and setup sheet provided by Bryant upon rental of the work.

<sup>&</sup>lt;sup>106</sup> Bryant recommends a Macintosh laptop

<sup>107</sup> The use of in-ear monitor is recommended, and is used to feed the click track from the electronics software to the conductor. The click track alone will only be heard through this monitor. Bryant recommends having individual volume control at the podium. If the earpiece used is a stereo pair, conductors are urged to know to which earpiece the sound is panned, the Left or the Right Channel.

<sup>&</sup>lt;sup>108</sup> Usually a flown speaker array above the stage, fixed in the performance hall.

<sup>&</sup>lt;sup>109</sup> A pair of speakers mounted on speaker stands behind the percussion section upstage Left and upstage Right, with the bottom of the speaker case elevated to approximately seven feet from the stage floor.

<sup>110</sup> These subwoofers receive automatic rollover of the lower bass range frequencies as sound passes through the on-stage stereo pair. This allows for a more robust, spatially aware sound, maximizing the efficiency of both low and high frequency palettes used in the electronics sounds.

<sup>111</sup> These can be standard on-stage monitors, usually floor wedges, placed so that the ensemble can easily hear the electronic parts as necessary. Bryant suggests giving particular attention to the piano, harp, and percussion sections during the soft, rhythmic portions of Movement IV. Monitor volumes should be individually adjustable, meaning each monitor used should be given its own adjustable mix from the mains. These monitors should not be receiving the click track.

<sup>112</sup> Steven Bryant, "The Automatic Earth," accessed February 29, 2020, <a href="https://www.stevenbryant.com/wp-content/uploads/2019/02/The-Automatic-Earth-Electronics-Requirements-and-Setup-OCTOBER-2019.pdf">https://www.stevenbryant.com/wp-content/uploads/2019/02/The-Automatic-Earth-Electronics-Requirements-and-Setup-OCTOBER-2019.pdf</a>.

itself, but should remain accurate in timing each sound's actuation. These sounds are all flexible, and thus do not mandate the conductor be loyal to its given tempo, within a reasonable limit. The laptop operator uses numbers 1 through 9 (across the top row of the laptop keys) as triggers for rhythmic cues. These laptop triggers initiate a click track, and thus *do* require the conductor to strictly adhere to the given tempo. By using two performers, a stronger awareness can be given to each responsibility, and the challenge of one performer shifting from keyboard to laptop is stricken from the list of worries that inundate the electronics portion of the work. A third person is needed to assist with mixing at the sound board. A more detailed explanation of each electronic operators' challenges and responsibilities are provided in the following section.

Performing on the 88-key controller does present some challenges that must be overcome. First, the performer must be able to read music on the grand staff as any pianist would be required. Second, the pitches written are not the actual pitches present in the sound that is triggered from the software (most of the time), nor is it always articulate in the sound responding to the touch (depending on the shape of the electronic sound being used). Therefore, the performer may wrestle with the fact that he or she doesn't hear the sound that is seen, nor find the normal immediate response-to-touch ordinarily received. Thirdly, the pitches, mostly in chromatic order, ascend the keyboard, and the part is heavily draped with ledger lines. When skimming the part, the chromaticism makes the ledger lines more manageable; however, the extended rests between triggers may not allow for as much understanding of the horizontal chromaticism in real time. Oddly enough, a performer of the 88-key controller may find it helpful to actually write the pitch names into the music as part of his or her preparation.

Performers of the laptop triggers are called to use numbers 1 through 9 on the top row of the laptop keys to trigger the click tracks, which predict the tempo of upcoming electronic parts and give strict time with which the conductor and ensemble must synchronize. These cues are provided in the score and electronics part as large, bold numbers with hexagonal outline. The laptop performer presses the corresponding number at the moment shown in the part. Although the physical execution of the laptop part can be performed by practically anyone, some necessary attributes will aid in a successful performance of such a critical component to the work. First, the performer of the part must be able to understand how to read the score, and understand how his or her performance relates to the acoustic ensemble pulse. Second, the performer should be able to understand gestural communication of conductors, therefore pressing the numbered trigger as aligned with the natural breath and phrase given. This requires anticipation by the operator, so that the click is aligned immediately with each downbeat. Third, an understanding of the Ableton Live<sup>TM</sup> software allows for more preventative precaution in performing the work. And finally, with the idea of interwoven electronics and the pressures that surround synchronization, performing this laptop part is a bit nerve-wracking. The performer must be comfortable functioning under this type of pressure, and be prepared to correct any possible mistakes. Bryant has built this corrective process into the part itself by providing multiple trigger cues. If one starts at the incorrect time, the laptop performer has the opportunity to re-sync with the real time of the ensemble at the next appropriate cue. This author would suggest giving such an opportunity during rehearsals, so that recovery from mistakes can be discussed and prepared for by all performers in the ensemble. Doing so will not only aid in the

functionality and cohesion of the two sound components, but will also serve as a sort of de-stressing mechanism about the synchronization process for all performers.

Mixing the electronics is the role of the third person in the electronics considerations, but not all balancing is the responsibility of that individual. The dynamic level of each electronic sound is pre-determined during its creation; therefore, balancing the volume of the backstage speakers with the acoustic ensemble will be necessary based on the performance space and the ensemble performing the work. This balancing will take place at the audio interface and speakers themselves. The writer suggests balancing both a section of louder dynamic (other than the climax of the work) and a section of softer dynamic. Movement II (mm. 191-202) serves well as the louder volume balance, while Movement IV (mm. 333-367) and the clarinet solos throughout effectively in assessing balance. These softer moments especially provide a good opportunity to check monitor levels of those individual wedges placed in the ensemble. Additionally, because volume levels have been managed as each sound was created, there should be no requirement to adjust individual sounds up or down as the work is performed. Bryant spent multiple nights in the large performance hall at Arizona State University reworking and tweaking his individual volumes and balances in the electronics. Therefore, once the minimum and maximum have been addressed, the interplay becomes a part of the mystique of the performance. By placing the speakers behind the ensemble, all sounds meld together and are heard from the stage. This causes listeners to question the source of the sounds, as Bryant composed the acoustic parts to sometimes mimic the electronic sound effects, and vice versa. With this in mind, all finely-tuned adjustments for balance sake should be made in the performance hall. Doing so in the rehearsal room is not necessary.

The third person required for mixing the house sound board becomes a part of the performance equation from beat four of m. 381 through m. 397. At this point, the electronic sound will continue to come from the stage speakers, but will also become amplified by the house speakers. Therefore, the sound board operator will either need to be familiar with reading a musical score, or, more likely, need to be assisted by another person, armed with the knowledge of score reading, who can cue the sound man when to fade in and fade out the house speakers. Bryant is adamant that the house speakers be used as an added layer at this moment in the work, because it provides a different feeling for the audience's experience. The consumption of sound should overwhelm the listener at this point, both electronics and acoustics. The balance will be tricky as the house speakers are added, so rehearsal of this moment as a separate point of balance is necessary. Bryant describes this section of the work as needing to be "as loud (but balanced) as possible – up to but not over the threshold of pain. It should be uncomfortable for all involved. The purpose of this is not only to increase the volume, but the spatial presence of the sound, so that it suddenly exceeds the audience's expectations in a startling way."<sup>113</sup>

Armed with Bryant's intended preference, rehearsals and performances of this work should also bring hearing health considerations into play for all performers,

<sup>113</sup> Ibid.

particularly those sitting in proximity to the speakers at the rear of the stage. Performers will have time to manage putting ear protection in and out during rests, much like brass players utilize mutes. But ample conversation and preparation in rehearsals should be taken into consideration for this cause and effect relationship with the amplified electronics.

One final note on electronic balance is this: all balancing must be done to the taste and preference of the conductor of the ensemble. Many aspects of the work are in the merciful hands of the electronics operating team. Therefore, the conductor must employ sound technicians that understand this relationship. They may possess tastes that differ from that of the conductor, but the ultimate decisions of balance and blend must come from the mind of the conductor. A trust relationship is necessary and should always be fostered when interacting with those individuals executing and controlling each of the electronic variables of the performance.

### CHAPTER 7

#### **Conclusions**

Over its first year of existence, following a premiere at the College Band

Directors National Association National Conference on February 22, 2019 in Tempe,

Arizona, *The Automatic Earth* has been performed at least a dozen times, in the United

States, Spain, and Austria, with more performances scheduled in the next year.

Immediate impact of the work is measurable in that these performances are being staged

at large scale events, each one on the leading edge of wind band development. These

events include the previously mentioned premiere at CBDNA National Conference, the

2019 International Conference for the World Association for Symphonic Bands and

Ensembles (WASBE), as well as the 2020 CBDNA Southwestern Division conference in

Norman, Oklahoma. The work has narrative to share with the world, and there will

certainly be more large scale performances of these kinds in the years to come. Hill

states:

I think this is a very important work because it encompasses a very powerful social message with musical language.... for me this is very quickly becoming like *Music for Prague*.... The message that's there for our moment in time is every bit as salient as was Karel's message through *Music for Prague*. 114

The topics surrounding the work are current and fresh, using both political and social buzzwords as a laboratory for musical dialogue. This alone makes the work's appeal as broad as it is long for performer and audience alike. And neither topic of

<sup>&</sup>lt;sup>114</sup> See Appendix B, "Conversation with Gary Hill about *The Automatic Earth*."

discussion is fading anytime soon. The environmental health organizations are merely in the early stages of their ongoing discoveries and reports; and the inclusion of technology has far surpassed the point of no return, sealing its fate as a lifelong partner as far as the unforeseeable future may wander.

Electroacoustic wind band music has been on the rise more heavily in the past ten years. Figure 7.1 shows a select few of these types of works along with their method of electronic implementation. From *Ecstatic Waters* to *The Automatic Earth*, Bryant has continued to build upon his methods of technological implementation.

Figure 7.1: A Sample of Electroacoustic Works Composed Since 2011

Date	Title of Work	Composer	Electronic Implementation
2012	Being in Time	Judith Shatin	Kinect controller reads conductor's gestures to play and shape the electronic sounds wih video
2012	X-ing	Martha Mooke	Electric Viola and Concert Band
2014	All Darkness is Now No More	James M. David	A phone, tablet, or computer plus amplifier and stereo PA speakers (subwoofer recommended)
2014	Long Distance	Steve Snowden	Application from computer for most options / or any mp3 playing audio device
2015	Deep Field	Eric Whitacre	Use of cell phone app and film. Audience interaction with listeners triggering electronic sounds via app during ending of the work
2016	Honeycomb	Cody Brookshire	Audience interaction with cell phone app called Synkrotakt, developed by Brookshire; uses spatialized cell phone sounds based on location.
2017	"Migration" Symphony No. 2	Adam Schoenberg	Sounds triggered using Ableton Live and a two- octave midi controller keyboard
2018	Ecstatic Cling	Frank Felice	for amplified solo bassoon and effects pedal
2019	Phase Shift	Robert Langenfeld	Sounds triggered via synthesizer via Ableton Live with organic tempo tap function

The above list is not intended to be all inclusive, but rather serve as a broad example of the types of works currently available in the genre. Among the list are a variety of electronic implementations - from simple amplification and effects pedals to the intricacies of cell phone apps used to provide spatial awareness in audience-based sounds. The future of electroacoustic wind band music is only as limited as our own capacity to create new methods of technological sound transfer. Robert Langenfeld, composer of *Phase Shift* (2019), is currently working on a Symphony for wind band that will incorporate what he hopes to be a more organically created electronic track, where part of the MIDI trigger of Ableton Live<sup>TM</sup> will control the metronomic pulse in "real time" by tapping the assigned keys on the controller to synchronize to the conductor. 115 Langenfeld incorporated some of these aspects into *Phase Shift*, but is looking to fully incorporate the technology into his new symphony, to be premiered on April 21st, 2021 by the Peabody Institute of Johns Hopkins University, under the direction of Dr. Harlan Parker. Langenfeld says that the organic approach to the electronics will bring potential alignment issues that the click track nearly "guarantees," but the flexibility afforded to the conductor and the lessening of metronomic performance from the acoustic members of the ensemble will be "worth the change". 116 Among all these in Figure 7.1, Steven Bryant's The Automatic Earth should be considered among the landmark works in its field, both for prowess of musical material and the attainability of the electronic implementation.

<sup>&</sup>lt;sup>115</sup> In a personal conversation with Robert Langenfeld, March 3, 2020.

<sup>116</sup> Ibid.

A final and more obvious factor for the current and continued success of the work is Bryant's continued skill in weaving the acoustic offerings with the electronic properties of the performance. As has been discussed through the scope of this paper, Bryant has spent enormous amounts of compositional energy to disallow *The Automatic Earth* as being a work for wind band with electronic accompaniment. Many will see this inclusivity as too bold, a challenge to the current establishment of wind band repertoire; many others will interpret it a fresh inclusivity, embracing the trends of modern culture, as an effort to prevent the wind band from becoming a mere monument, then mausoleum. Rather, Bryant has successfully and artistically comingled the two musical spaces in such a way that there is no dividing line, only ensemble sonority, which includes both acoustic and electronic sounds. He has blurred the lines of sound color (along with every other musical element possible) to create a space where those who experience the work must wrestle with difficult questions regarding its musical narrative.

#### **APPENDICES**

# Appendix A

Conversations with Steven Bryant about The Automatic Earth

## February 22, 2019

Bonds: Source material: Is there any historical context to it? Basically, there's a

three-seed germ that continuously comes back, I see. Or maybe it's a four

note...

Bryant: Yes. So there's this constant tension between major and minor. Like, G

Major, G minor, E-flat Major, E-flat minor...At the same time juxtaposed. Also a lot of the chords are a major third apart. F Major to A Major, etc.

So you get that same result, the flat 6 and 5 and the major and minor thirds

So you get that same result, the flat 6 and 5 and the major and minor thirds in the chords, and it's this really neat, satisfying little cluster that still

sounds very Major. The tension moving between those two where it could resolve, but then you're kind of resolving one, but not this one...I love

that ambiguity. And so I think out of that, if I remember correctly--look at the clarinet solos that come back, that's kind of the core melodic material.

So, a rising third and then up an octave or the Major 7<sup>th</sup> so that you have

G, B-flat, F-sharp, and then E-flat. So I'm really thinking of that as E-flat Major and minor at the same time even though it starts on the G. Because

you'll have the drone in the electronics like the beginning, when that clarinet solo happens, there's a sustained drone that's a B-flat in the

background the whole time. So I imagine that as tonic and use that a reference. And then later on in the piece it does the same thing up a whole

step, so the drone is F. It's the same relationship.

Bonds: I noticed at the start of the second movement there was possibly an

intentional expansion of that melodic statement.

Bryant: I used that over and over again. The things that happen, the homophonic

stuff, it's the top melodic line.

Bonds: There's another clarinet solo. There's still the interval of the rising

third...but...

Bryant: Yes, I play with the exact interval a little bit. So the shape is the same

because everything to me is about wanting you to be able to feel like, 'Oh I know this!' but then there's a little bit of surprise. It's a classic thing in

composing: everything is about wanting my listeners to feel like they

know the material, toeing the line of expectation, then violating those expectations. So I want to go far enough out that your interest peaks, but I don't lose you. So you see sometimes instead of starting that on the third I start it up on the fourth so you have an E-flat, then you start on a G-sharp, B-natural. So it's that same motive but now it's off a little bit and then if you do that, you end up on D-natural at the top so instead of just the top, I've split it up so it resolves itself even though the motive itself is the same. So, just moving it around a lot, and sometimes it even goes up an octave. But to me that's all the same musical idea. I feel it and experience it as the same thing and that's important to me. That's one of the big criteria I use, it's not so systematic. It's, 'These things feel related this is probably why.' But it doesn't matter if they look related on paper to me, it's only how you experience them aurally.

Bonds: I noticed some octatonics...

Bryant: Oh, it's always a little bit in there. Some pieces it's just all I do.

Bonds: And the last movement is minor. Its initial statements, the bassoon is playing just a natural minor scale. But then in the fourth is when I think I started noticing a lot of melodic octatonicism

Bryant: Well it's the same that all the ostinato in the percussion, it's exactly the same. That's one of the earliest pieces I wrote for this piece.

Bonds: Like the clarinet line is octatonic in nature.

Bryant: Yes. I don't really remember writing that line or what I was thinking. Maybe just something that floats tonally out a little bit.

Bonds: So you're not necessarily focused on the octatonic scale then?

Bryant: Not consciously. I'm sure I could see it's what I was doing. But just so that it floats in and out of whatever I can see that the melody is and mostly it's about managing the dissonance and the density so that one chord doesn't pop out as way more dissonant than other.

Bonds: OK. I would want to look at the juxtaposition of those chords to see if—simply by layering those chords you're getting that.

Bryant: I think you probably are. Yeah you are. There's a couple of open notes in there that I could choose if I choose the ones that form an octatonic scale...Yeah it's just the octatonic scale, they're so usable. There's nothing new when using them, but you can slide to any tonality there's a constant leading tone and you can kind of stop wherever you want.

Bonds: Again, back to that ambiguity.

Bryant: Right. I like you to feel like, 'OK, I know what....no, now I'm uncomfortable...OK, I think I'm comfortable...' I don't want to lose you, I don't want you to go to sleep. And when Gary started talking about this piece, from the beginning he was asking for something that's disturbing. Just going down that path and sort of figuring out what it's about. It's not like, 'OK, here's the story.' There's not <u>a</u> story.

Bonds: In looking at the source material text at the beginning of the score, obviously there's some political. Well, I wouldn't call it political, but some...

Bryant: Well unfortunately the science of climate change has been politicized. So it's not that I wasn't aware, but now I've read a lot about things we could do to make life better for all of us. It requires collective forethought, foresight, and compassion from everybody on the planet. And humanity's never done that before. We don't have a good track record. So we'll see. This kind of life is unsustainable. And if something is unsustainable, it won't be sustained. We always kind of gloss over what those consequences are.

Bonds: Because we don't see them as sufferable within our own generation. I think that's why we blind ourselves to it.

Bryant: Yes. We all are in denial every day. And I'm not pointing fingers...I flew in a jet plane here. Hey, I wrote a piece with electronics that uses more energy. So, it's not that we're all evil. It's just that this system of existence and economic activity require constant growth and resources. There has to be a different system. It should make us deeply uncomfortable. I feel like those mental states are sort of what I'm painting with this. It's not a story.

Bonds: So Gary didn't come to you and say, 'I want a piece about \_\_\_\_'. He mostly wanted something disturbing, etc.?

Bryant: Yeah. And we talked about all sorts of things—surveillant state, the 'big brother', and things. One of the things I originally thought I would do with this thing was find out what Facebook has been doing. So that was an early idea, but it kind of became that the overarching thing was the climate. And it seems to be escalating more rapidly than science. So that's sort of the space I've been in and the piece has sort of a darkness to it like that.

Bonds: Talk about the lighting components.

Bryant: Originally we were going to do a lot more. We just couldn't program

them overnight. Some of it will be a surprise. We've outlined them a

little. But yeah, I've never done that before.

Bonds: What do you want the audience to *hear* tonight?

Bryant: The electronics. Haha. I want them to just work. I don't know that I've

really actually thought about that. I'm still in problem solving mode. Um—I'm not sure how people are going to experience this, or what they're going to think. I expect a number of people will not like it simply because it's too confrontational. It's mostly quiet, but there are some times where it's not. There's one part that's going to be outside the bounds of what people think should happen. That's probably the point. I want people to be confronted. But as far as what I want them to hear, I think with any of my pieces, it's not mine to say that. What they're going to experience is who they are and so I can't control that. So maybe I shouldn't even try to have those expectations. I am curious. I would

rather hear what people experience than try to describe it.

Bonds: What is your feedback meter on a piece like this? How do you gauge

reception? Do you have an inner circle that you go to on those terms?

Bryant: There's a little circle of people that I went to school with that we usually share the scores and talk about what we think. This year, none of us did

that. But, my wife, if I ask her what she thought she will tell me honestly. She has a really good ear. Also, I compose without meter and I drop the meter in after it's composed. I don't want to have to feel confined like, 'Ok, I'm in four.' So after it's written we look at it and decide, 'OK, this bar is in four.' Or 'That's a 2/4 bar.' There's always so many meter changes in my pieces because of that. I'm not thinking about it when I'm writing. So when I conduct my pieces I have to use the score. So my wife

is really helpful in that area. Plus my circle of friends.

# March 7, 2020

Bonds: The clarinet solo, at measure 15. I know it returns in full form, transposed

up a step later in the work. But I don't feel like it's necessarily thematic more than it is a representation of some ideas that return throughout the work. I feel like your motives are drawn from that clarinet solo. Does

that make sense?

Bryant:

Yeah, I was looking at the way you wrote that even starting at the beginning. The first time is actually bar 39. And I do repeat that a lot as sort of a repetitive statement of melody or motive. Honestly though I can't remember, because I certainly didn't compose this in order. The clarinet melody is derived from that same stuff. Everything is Major or minor, and all of it seems related- to me – in that way. The opening clarinet solo does that exact thing with the first three notes. And then bar 21-22, that's what you're calling the first theme are those first four notes.

Bonds:

Yes. Those kind of play out a little bit more in the work. In that measure 39 and then later when it comes back in the second movement where that returns.

Bryant:

So, this isn't going to help you, but here's how I actually think of it. It's not as rigorous and codified as you've done it so I don't know how else you would explain it in what you're doing. It's a cloud of related things in my head and I just sort of do it intuitively. And so things all feel related, even if you start with that minor third up and then the major third of the underlying harmony, that's already triggered that it's related because we've heard that a billion times. And then I can go somewhere else with it each time, but it's more shaped by, 'Am I building tension? Am I trying to stay in register and building somewhere, going to a certain place or not?' And how the piece develops is shaped that way as much as it is in how I develop the motive.

Bonds:

Yeah. And I think the way I've described it throughout the paper is that this opening clarinet gesture is almost improvisatory. You're taking that harmonic concept and just moving around within that, as you say, cloud.

Bryant:

Yeah. I wrote different variations of clarinet solos and then took a chunk of that and developed it into the more regressed what you're calling motive A and B after the fact. I just kind of sketched over a chunk and then developed that again. I think that's how that developed. So in my mind they're related but it is improvisatory obviously.

Bonds:

Within what I'm calling motive A, you use diminution of interval and augmentation of interval. It's a gestural, angular line that does morph and change. So I feel good about using these three main motives in the analysis that I've sort of disaggregated out of the work. The second thing we can talk about is what plays out in measure 48. It's still connected harmoniously to that clarinet line, those four pitches in sequence never occur in the clarinet line but they do in a lot of other places in the work, specifically the fourth movement.

Bryant:

Yeah it does come back a lot. So I wrote the fourth movement, the climax section and the stuff leading to that with the chords in the low brass; that's

the very first thing I wrote. So probably (again I wrote this so fast I can't actually remember) I wrote this from there sort of foreshadowing it along the way. It felt like it belonged because I knew that the thing was coming, if that makes sense.

Bonds:

Yes, I've even used that word foreshadowing, talking about how this will be seen again in the fourth movement. So knowing that you started there helps me disaggregate that better and communicate that in the paper.

Bryant:

Yes that's absolutely true and I do that all the time. I will try to foreshadow and use those bits early on in the piece. It's one of the biggest and most obvious of tools for setting up expectation and violating those expectations...playing little seeds as we go so that when we get there the moment feels inevitable.

Bonds:

It feels like a summative statement. Like a summary of everything that's preceded it.

Bryant: Good!

Bonds:

I've not gotten tremendously carried away with harmonic analysis of chord progressions, cadences, and things like that. But I have talked a lot in the paper about this Major on Major, chromatic- mediant relationship and bi-modality. You've got the Major and the minor and several instances of octatonicism and Lydian mode that are happening at the same time. And it may come out of your mind in the compositional process as a natural thing. So you may not be able to go and pinpoint, 'Oh yeah, I was thinking octatonic, or I was thinking Lydian right here.' But the gestures are there. And that's what I've tried to communicate more in the paper is the overall scope being use of polychords and bi-modalism.

Bryant:

That is very intentional. It permeates the whole piece. I've used this particular – where we end of E-flat Major over G Major – that's actually the exact one I've used in early pieces. It's been a favorite particular sound of mine for a long time so it felt like time to reuse that and just using it in different tonalities. That's one of the foundational harmonic worlds that I set up from the beginning. I decide to spend a lot of time in this ambiguous space.

Bonds:

The other motive, you may think it's a bit of a stretch in connection on my third motive. But in the second movement you've got this Lydian quality of E-flat expressed in the trumpets in a legato, fast, chorale expression starting in measure 61. The melodic line has a G, F, B-flat, A-natural, G. Then a little later on in the movement, measure 88 with the clarinets. You take what was over E-flat and now it's over C-flat, so we're dealing with polychordism again, but it's a similar expression in the clarinets; G-flat, F,

B-flat, G-flat, F, B-flat. And I'm relating them by that interval of a perfect fourth from F to B-flat and their expressed in tonal ways, but I feel like it's still the same motive—same idea.

Bryant:

Yeah, it's supposed to be the same material, just out. You know, the sort of uncomfortable, familiar yet not. So that's intentional but I don't always think, 'OK I'm going to use this tonality because it feels that way.' I just know that it's the better way of doing it because of the overall mode, it feels that way and I stretch the interval a little bit, but it's the same shape that we hear it as the same entity. So yeah, it's absolutely the same motive.

Bonds:

Yeah, you use great words there, it's the same shape. So it may not be a real transposition of the motive, but it's the same shape and the same musical idea. And I guess to sort of fast forward all the way over to the end of the work...one of my most settling decisions on using these three motives plays out at measure 423. You use the ascending, what I call motive B, the octatonic 3-4-5-flat 6, four notes. You use motive C with its ascending fourth gesture there in the trumpets and horns, immediately followed by the gesture of motive A in the euphoniums and horns. I feel like that is almost like you're closing the door – done.

Bryant:

You're exactly right those are exact quotes of the material. I don't remember doing that consciously, but by that point in the piece you know those things are so much in my brain that it's what comes out. If I try to improvise something it's the stuff I've already written. But yeah those are exactly the same material, so you're spot on.

Bonds:

I've talked about a lot of other things in the paper that I don't think we have to discuss in depth. I write about the sound effects, the ostinatos in the percussion, or things that appear like ostinato but change a little here and there. I do talk about that G-Major spin at measure 440 with the clarinets where we're in a space but all the sudden this G-Major chord comes and we've experienced G-Major at times, but not in that way...and so on.

Bryant:

Yes, I can't remember exactly how I chose that tonal area to end up there or if it just led me there. Obviously it's the exact same chord that's happened in other tonalities before, so it should feel familiar yet unexpected. And I like that feeling which is what I use as a guide. I like for it to be inevitable and yet unsettlingly unexpected.

Bonds:

Right. I did send you a couple of specific quotes from the paper. I tried not to spend a lot of time programaticizing the work or trying to explain, 'This moment musically means *this*.' Because I don't think that's where you wrote. You wrote in that space, but not necessarily to communicate specific things. So I've used the word narrative more from a standpoint of

like a Beethoven symphony being narrative contour, not Berlioz Symphony Fantastique being a legitimate narrative of a book.

Bryant:

Right. Bingo. That exactly sums it up. I really shy away from associating particular notes or moments with very particular extramusical events. I just don't like that. I have never wanted to do that even though some of these things are so powerfully definitive and I know people are going to draw certain imagery and these moments have some sort of meaning, but I refuse to think about that space when I'm writing it. Part of it is also that I want the music to have its own internal musical logic regardless of anything you think about outside of it. So when it's the big moment it needs to make sense from a musical perspective as well as anything else it might mean to the listeners outside of music.

Bonds:

Yes. So in those couple of statements I sent you, I've used the word 'perhaps' in the paper. I am fine to go with that, I think the committee would have questions and I could use this conversation with you as sort of a springboard of defense for the reason I don't nail down, 'This is what this means.' But I'm also good if you would rather me pull those statements out of the paper. They are additional opinion that wouldn't necessarily have to be there for the paper to stand.

Bryant:

It's not that I mind, or think it's wrong if other people ascribe or have particular associations with these moments. As long as its understood that I am never explicitly saying, 'This means that'. As long as that's clear to the reader or anyone in the future. I know that people are going to experience my music in all sorts of different ways and ascribe all sorts of different storylines. Like, I've heard that for years with "Ecstatic Waters", I've heard about space whales and the craziest things you can imagine. And it doesn't bother me, I just want it to be clear where I am mentally so no one can say, 'Oh, Steve meant *this*.'

Bonds:

Right. I can add that caveat. I can say, 'This is what Steven doesn't want to do' in writing. But for this writer knowing the context of the literary material that's been presented along with the work, here are some things I see.

Bryant:

Yeah that's fine as long as the distinction is clear I don't mind at all.

Bonds:

OK. And like I said, I don't spend pages on this stuff. But I knew that I needed to address that with you before I just threw that out there as, 'Here's what Steven meant by this' when obviously that's not what you wanted. And I get that, I wouldn't want something that I created to be pigeon-holed, for lack of a better word, into only meaning that. Because twenty-five years from now this is still going to be a viable work for wind band and electronics. But if it only means 'this' then it can't mean 'that.'

Bryant:

Yeah. I think you've really hit on the reason why I really don't like to do that because everything is so transient. Art changes and it's much more powerful and potent if it's ambiguous in a way. You know, we don't hear Beethoven's 5<sup>th</sup> the same way that Beethoven heard it. So it needs to be malleable in a way, but still have internal structure that can hold up as music.

Bonds:

Yeah, that's a good statement. I like the use of the word malleable.

Bryant:

Well art should be malleable, and I think we have to be malleable as human beings to survive. Adapt or die, right?

Bonds:

Right. So, in writing on some of the electronic balance stuff. I have a question. On Monday I'm going in to download within my thirty-day window of our performance. I'm going to download Ableton and be able to listen to those tracks for specific things. But I guess a question I would have about the balance of the electronics is, when you create those sounds, you create them and decide how many decibels they're pushing. So, what responsibility falls to the on stage technician using the laptop and audio interface to begin adjusting volumes for each response? Or have you taken care of that within each gesture you create? Does that make sense?

Bryant:

Yeah. So you've hit on one of the most difficult pragmatic aspects of doing electro-acoustic stuff. I get the balances way wrong. So at CBDNA, it was the first time I'd heard it on loud speakers and everything was radically different than it was here in my studio. And certain things jumped out like crazy and other things wouldn't. So I spent the two nights in the hall after a concert was done until like 1AM and 2AM playing on the system and readjusting every single audio file, like 500 audio files. I was running up the hall, playing it, playing it with others, playing two sequences, taking three decibels off this one, four decibels off that one. It was painstaking, but the only way to do that is to do it on a system like that. So now, I've heard it on other performances and they're really close. They pretty much work the way I want with the balances as long as you get the overall volume right it's very close. However it's never absolutely the same. That's why I prefer for the performance to rise the mixture levels out in the hall for the performance. Because that's the one element that is, again, malleable. Once the audience is in the hall the acoustics change. When the ensembles get the adrenaline in their veins it's always louder in the performance than it is in the tech. So everything changes a little bit so I prefer to rise the levels. But I got this one pretty close. If you don't touch the mixer it still pretty much works throughout. But man, is that one of the most difficult and tricky things to get right! It requires a painstaking amount of tweaking.

Bonds:

Yeah. Well, as I started writing about the electronics and the balance—I know quite a bit about it—but I started dealing with this point of, the guy on the mixing board in the back dealing with the house sound, he's not tapped in to those smaller electronic moments. His only role is bringing up the flown array of house speakers at the right moment. Unless he's on a separate system that's connected, like you would be, into the Mac and adjusting volumes accordingly. So I started thinking about that as just a pragmatic process. There's going to be some difficulty there. And I wondered if that meant that the person playing the laptop is going to have to reach over and adjust the audio interface every time they get ready to hit the button. But it sounds like you've taken care of that in those hours you spend in the hall at ASU.

Bryant:

Yeah, that's one of the hardest unsolvable problems is the AP system. I'm not a singer. I have no idea how the balances are. And players, and you as a conductor cannot adjust that. That's a problem that needs to be solved somehow, but I don't know how.

Bonds:

Yeah. Well my process that I ascribe to generally figure it out for the conductor in those closing chapters is, I suggest them using the end of the second movement that is pretty loud as a max volume sound-check sort of balance. And then using that ostinato softer space in the fourth movement where the wedges -the monitors - come into play, for timing purpose because it's one of the softer moments electronically. ...more sensitive moments, I should say. I suggest using that as kind of the minimum levels to then find that happy medium and go with it.

Bryant:

Yeah, those are good. I mean obviously, functionally they -the percussionists and the ensemble- need to be able to hear them and blend with them. And so those are good. I think also the single drone that happens behind the clarinet solos, those cues there, that needs to be quite subtle. And then some of those where the clarinet will play the major third, and then the minor third, and then the major third and I have those little cues where those sounds come out of that. That needs to blend perfectly with the clarinet, not dominate, but not be too soft. And so once you set those – you should be able to set one of those and then everything else will fall in line with the other moments you said as well. Obviously the loud moments, one of the things that still doesn't work every time is in the second movement, because that's supposed to be quite loud. And sometimes it's just not loud enough. But other times it is. So I don't want to put it in even louder and have it be too loud. So sometimes during the performance I will bump the volumes just for movement two just so those things and that chord at the end of movement two is as loud as the ensemble. That's really hard, and actually I plan to go back and re-do that

chord, that fades in underneath the final big dissonant chord in movement two. I need to tweak that one louder and have it crescendo in faster, and I need to add a piccolo on top because that's the sample of Arizona State playing the chord before I wrote the piece. But when I recorded it I didn't have a piccolo playing it and in the ensemble I have a piccolo playing it. It's amazing how different...

Bonds: Yeah, they're hanging out on a really high A on that last note.

Bryant: Yes! It's pretty painful.

Bonds: Well this is good. These are things that I'll bring to surface as I round out

that electronics section of the paper. I'll talk about how you will move forward and tweak. Again, that speaks to the process of the way you publish your works and how there is a malleability in the way you even do that. You can tweak and fix something so it will now be different. So I think this wraps it up for us here. I've sent a few other questions in email so if you get to those Monday or Tuesday that's great. They're less involved in me having to tweak anything in my paper. The big thing for today was just getting to those motives and that tonal conversation that we

started out with today.

Bryant: Good, I'm glad that helped, good.

Bonds: And if we need to schedule any other time between now and my

submission, we will. Thank you so much, Steven.

Bryant: Thank you!

### Appendix B

### Conversation with Gary Hill about The Automatic Earth

Hill: Have you talked with [Steven Bryant] since we did this in Austria?

Bonds: I've not. I've not talked to Steven since we met in Tempe. So I know the

piece has had a lot of play and time to settle for him so that he'll be ready

to talk some specifics, I think.

Hill: Yeah and that's what I'm getting at, because we had a really successful performance and set of rehearsals in Austria a few weeks ago. And I

would imagine he has now some different sorts of thoughts, maybe more concrete thoughts I'm not sure. I'll leave that to him but, I'm glad you're

going to try to speak with him again.

Bonds: Yeah. When we talked in Tempe he said, "To be honest, it's still too

fresh. The ink is still wet". It just hadn't settled for him yet.

Hill: Yes, it literally was. And as I was looking at some of your questions I kind of laughed because it isn't one of those things—Steven took a while to finish it and took a long time to finish the electronics part. Actually he was still—he is still—adding things. The electronics part in Austria was slightly different than at the premier and it's all for the better. I mean the piece keeps growing in terms of what he's doing, which is cool, it should. In any case February was a real rush. I mean the ink was literally still wet and the electronic part, we really didn't hear the concert version until the day before the concert. And we heard most of it about a week out, but

in and focus and go.

Bonds: Well the concert itself was wonderful that you all did at CBDNA. I was

just very thrilled as I sat and listened. You know the first half was great works that we've studied and, you know, chewed on for many years. And the second half was just, I don't know, I wasn't prepared for the weight of that second half. It really just took my breath away. You know, you

there isn't really time to do a lot of thinking about it you just kind of dive

transitioned into the Ives and I thought, 'Man, that is great!'

Hill: Thank you. It was a work in progress for sure. And it turned out to be about as good as it could be in terms of the line of the music—which I know is one of the questions you want to talk about so I'll let you do this

in whatever manner you want.

Bonds:

Ok. Let's start by talking about the commissioning process. Did you have goals and aspirations for the work or was it something that Steven brought to you? What did that look like?

Hill:

In terms of both pieces, it's kind of interesting the way all of this unfolded. John has written about what occurred with his piece pretty extensively. But it took me quite a while to convince John to do that. Two things happened between 2017 and 2018 Steve and I had a very, very late night conversation at CBDNA in 2017 in Kansas City and it really had nothing to do with music, it was about the state of our world. Both of us talked about politics, we talked about the dystopian manner in which the world seemed to be moving, we talked about the fact that a lot of people are still ignoring climate change even though in Europe they're seeing it with their own eyes and they're much more attuned to it. We talked about all kinds of things that both of us feel really concerned about and for with our future. Not so much for us, especially for me, but certainly for our kids and younger generations. And it was actually a pretty depressing conversation. But anyway I said, you know, it was like 2 or 3 in the morning. It's one of those conversations when you sit and everyone else has gone to bed. And I said, 'You know, Steve I would love to get a composer to write about just this whole atmosphere that we're living in. This dark, really, something pretty dark and disturbing. Not necessarily a big piece, just something. And you know I know you are...' (because he had already told me that he had commissions for about the next three years at that point) I said, 'I know you're really busy but let's talk about composers you know of, or younger people you've heard of, or anybody really that you think I should approach. Who would be interested in this? Who would you talk to?'. And he sat there for a minute and he said, 'You know, I don't have time to do anything—to add anything to my plate. But I need to do this. I want to do this.' And I was taken aback and I said, 'Steve, you know, we already have plans for a commission with John. We don't have a ton of resources but I'd be happy to work...' and he said, 'I don't care about it. Let's do something different in terms of supporting this. Let's just let people buy into it if they want to.' And that conversation carried on over several months of how we were going to do that. He said 'I'm not even going to have time to think about this for at least a year. But it'll be churning in my mind.' And so it began then. So that what March of 2017. And we talked that Spring and Summer about the logistics of getting people to buy into it and how we wanted to do it. And both of us actually wanted to make sure that anyone who wanted to be a part of it could be. So we had this idea that maybe it was good to be—like if we had a really cheap buy in—high schools could buy in if they wanted to, small schools... And Steve said, 'I'm committed to

writing a piece that at least part of the piece could be done by virtually almost anybody.' That was kind of his thinking at the outset. Because he thought the topic—whatever the topic ended up being—it was going to be important to him and he didn't want, you know a \$5000 buy in or whatever from ten schools or whatever. So we were talking about all of that and then of course he was busy with his commission for the Detroit Symphony and on and on and on. We touched base every once in a while, but he would just write fragments of music for a while. He told me, and you'll have to ask him this, but he mentioned a specific number of measures he's got that he never even used. He wrote way more music, like maybe even ten more minutes than he actually put in the piece. So it turned out to be enormous. And as kind of a sidebar, Steve had thought about a piece that was maybe going to be ten to fifteen at max long, and John's piece was supposed to be fifteen to twenty. And as it turned out, John's piece turned out to be twenty-three minutes and Steve's turned out to be thirty-one. Which caused some consternation for me in terms of the programming but, we'll get to that idea I guess. Or I could continue on with whatever you like.

Bonds:

Yes, that's fine go ahead."

Hill:

So what occurred next, just in terms of the program; John came to campus in Fall of '18 because we were doing his songs from 'The End of the World'. I had worked with Lindsey the year before when we had done the Corigliano setting that Verena set in that wonderful 'Mr. Tambourine Man' setting. So I had worked with Lindsey and she's such an amazing artist. Anyway, John came Fall of '18 and we did those songs. And we spoke then after the concert about this project because he had been stewing on it a little bit. And I said, 'Just as an FYI John, Steven and I had a conversation and here is what he's thinking.' I told him, 'I have this idea that since this is CBDNA, these pieces should be together and I had already thought about the Ives being in the middle of them. Because Steve is writing this really heavy, probably dark, dystopian piece. And yours isn't exactly a happy topic. So it seems to me that the Ives is at once a chance for people to catch their breath and meditate and reflect a little. But it also is, in its own way very provocative. And so it would be a nice in between piece.' And John's immediate response was, 'Oh, you just solved a problem for me.' And I said, 'What?' And he said, 'I am going to write this piece knowing that the Ives is going to precede it. And you should know that my Mom was a singer and a flutist. So the fact that you're doing the Ives with all of the flute things in there is fantastic and I'm going to think about that and it could be that I end up drawing some material from that.' I thought that was great, I didn't know what he had in mind. He asked, 'Are you absolutely committed to that?' and I said, 'As

of now, absolutely I promise you it's not going to change. The Ives is going to come before your piece.' That ended up really cool because the Ives ends up on this G Major chord and John very intentionally wrote the first note of his piece as an F sharp so that it would be jarring after the G Major chord. And then of course it evolves into other things. And Steve also knew that the Ives would follow his piece. I don't know that that impacted what he did at the end of the work, but he did know that the Ives would be there and he was fine with that. And I had no hesitancy about doing this I thought it would be a fantastic way—I've always loved seamless collage concerts. And this was not at all that same sort of spirit of course, but it was the idea of making a seamless line for the second half that is thought provoking. And I didn't know how John's piece was going to end, how Steve's piece was going to end, anything of course. So there was always the 'Who knows?'. But I was committed to whatever it came out. If John wrote a loud ending fine, if John writes a soft ending fine. It didn't matter because it would be a line of thoughtful and meditative music. So all of that was in place and as things evolved, Steve eventually started writing the piece quite seriously. A year ago now, he was in Austria and he was churning out the initial gestures in material. And when he came back to the States the only thing he said was, 'My goal was to finish this by Verena's birthday which is January.' Of course it ended up being another month but, in any case, he was writing a year ago. He was just writing all the material, playing with ideas and so on. And you know, he'll tell you I'm sure more about all of that. But as it went it kept getting longer. And John's piece did too. There was a point when I had some consternation about the second half both in terms of length but also in terms of the material as it ended up. And I remember talking with Jason over a period of days about whether or not we should re-map the concert and split the pieces up. Would they be too similar? I even toyed with the idea of doing the Ives twice. As weird as that sounds I mean, I've never been bashful about doing different things. But I thought what if the first half ended with the Ives and the second half started with the Ives. I was toying with all of these ideas. But we decided it would be what it would be. It was a big long line. That is a long chunk. But people sit for opera like that. And people sit for twice that long for a movie. If the music is compelling enough, and the line is compelling enough, then it's going to be OK. So that's kind of the way the program unfolded in terms of that second half. So the plan was in motion almost a couple of years out.

Bonds:

Now as you all have performed this piece twice since the premier, was it the same sequence when you did it the second time?

Hill:

No, Steve's piece stood alone in this concert in Austria. It was a full concert of other works with multiple conductors. In fact the initial plan,

because of the nature of the group and the nature of the concert, was just to do a couple movements. So what happened is we started on one evening with the first walk through and we did two movements. And it was phenomenal what happened. There were some people in tears in the ensemble. All we had done was play the second and third movements. And I said, 'This is the plan, we're going to do this because of the nature of the concert.' And immediately some of the players started coming up to Steve and to me saying, 'Can we just do the whole thing? This is too important.' This WYWOP group goes up to age thirty and most of the players are in their mid-twenties. The bulk of them are in a range of -you know second and third year teachers—people like that. And I think part of their sensibility about that was that this is such a compelling thing to them. This is their world, they're just now entering as adults, and they are super concerned about this topic-these topics really. The idea that we are so enthralled with our technology that we kind of tend to ignore the bigger problems, or we think that technology is going to solve everything and we don't have to do anything, or whatever it is we think. And a lot of this is really not things we consciously think, it's just the way we're acting out. But these young people were very concerned. And so Verena, on day two, said, 'This is the last concert of the festival, it really doesn't matter if it's a little long. So, what's an extra fifteen minutes? Why don't we just do the whole thing?' And the players were ecstatic. They dove in and what was different between the premier and this performance, because of circumstances, is that at the end of every rehearsal there were people in tears—different people. Part of that, I think, is that we rehearsed it with the electronics almost every single time from the get-go. So they got the whole picture immediately. But part of it was again, just the setting. We were all there from all over the world in a beautiful place and this is talking to us about the changes that might occur and how it might effect everything and everybody. And you know that sort of situation, it's like a camp. Everyone gets close to one another and they talk about things between rehearsals. So every single rehearsal was very emotional and that was fascinating. And at the concert, the audience just went nuts. I even had a different sense of the piece after spending another week with it with players. I really loved it anyway in February, but I gained a deeper appreciation for it from having the opportunity to do it again and—man, oh man—it's powerful. It's really powerful. And you can't just think about the wind and percussion parts, the electronics are part of the whole piece. And even though we don't have anything to do with conducting that, per se, the music is so complex when you add that component in. It's interesting.

Bonds:

Yes. So what is one of your most memorable moments from the work itself? What's your favorite part?

Hill:

Oh, I have so many. I love a lot of the piece, so I want you to know that right off. I think there are three or four parts that I particularly love. One is the opening of the second movement, 'Days of Miracle and Wonder', because it comes out of the first movement and it's such a shock. I love the brilliant brass writing there. And I really enjoy that moment when it suddenly turns from dark to brilliant. That's not my *favorite* moment, but I do really love that. I think that if the pianist does his/her job right the next movement, 'Shining of Shadow', the atmosphere of that is just incredible. That whole first couple of minutes are so haunting. And then, of course, the climax of 'The Automatic Earth' movement is pretty remarkable.

Bonds:

It's pretty loud.

Hill:

It is. It is indeed. But it's so unbelievably powerful. I love that. And one of the things we had a chance to do in Austria was to rehearse the last movement a lot. That's something, because of time, that we didn't have the chance to do before the premier. I don't think it was badly played, it's not that, it's just that there is a little more in there than I initially thought. And so my last favorite moment is a funny one; it's actually the very end of the piece. I never had a rehearsal with the electronics, either at ASU or in Europe, where when that electronic part ends and there is just silence, I wasn't choked up. There is something about the way he was written that—I am choked up every single time. To me that's a very powerful, emotional moment. It's just unreal. There is something so wonderfully stark about the way he's managed that line that when that electronic part gets louder and then suddenly, it's done, it's such a perfect metaphor for the possibility of the ultimate tragedy. For me, in my mind, it always feels like humankind's candle just went out and we're the ones who go extinct because we've been such idiots. That's not a storyline or narrative of Steve's at all. But there is a sense that it grabs me like—if we don't wake up—our lights are out. That's the way it feels to me in the end and so I'm always really moved by that. Those are probably my most powerful moments, at least right now.

Bonds:

I agree with you that the opening of that second movement is definitely becoming one of my favorite moments. Just as I work with the piece and I listen to what's there, it's fabulous. The brilliance of the overtones, the stacking of the chords, the way he adds the ninth into the chords. It is so nice. In speaking with Steven, I know he has used a major-minor complex in the way the chords shift. The first time I listened to the performance I drew into Fisher Tull and 'Sketches on a Tudor Psalm', just the way that

modality shifts more so than the harmonic pallet. It made me think about that Tull work so much. I don't know that I'm going to have time to chase that rabbit in this paper. But I think it would make a great article at some point.

Hill:

Yeah, that's an interesting analogy. I hadn't thought about that. That piece is not something I've done a lot in my life. I did it earlier in my life and kind of put it away. But I understand where you're coming from with that. It makes sense.

Bonds:

There is another moment, I believe in the first movement, where the clarinet soloist finishes up and it moves into the whole woodwind choir having a statement. They're all moving together rhythmically. It harkens back to that Gregorian Chant, you know, the beginnings of where we are. Then it thickens up texturally and goes from there. But that moment, plus the modal shift, made me think so much of the Fisher Tull.

Hill:

And I didn't mention the clarinet solos. But those, of course, are some of my very favorite moments. The way that he manages that, and if it's paced just right, the way that it works with the electronics is amazing.

Bonds:

So let's talk about some of the rehearsal issues that you had. What were some of the complexities you dealt with electronically? How difficult was the timing, say of the clarinet solo etcetera?

Hill:

It's not difficult as long as the tempo is close to what it should be. And the interesting thing about those episodes is that Steve wants the clarinetist to play with a certain amount of freedom. And yet at the same time, you have to have enough push and pull so that you end up basically where you belong. Conducting at this pace-this slow pace of a lot of this music-is really difficult. Any piece of music where the tempi are this slow, I don't know any other way except to turn a metronome on with subdivisions and learn the piece from the get-go in the absolute tempo. So that as your musical mind and your body subsequently move and practice before the rehearsals even begin, everything is moving at that pace so that the piece is that pace. There's no intellectual thought about it when you get into rehearsals, you've got to be really, really close. You don't have to be exact all the time because there is a click track that comes and goes at certain moments. But you have to be pretty close. So that's something that anyone doing this piece is absolutely going to be required to do as part of the learning process. You have to work with a metronome from the get-go so that your body and your mind are in motion. Now, I suppose one could listen to the midi-version and do the work that way. That's the

way I used to check myself for sure when Steve sent me the first rough midi. I certainly listened to it. And then I went to work outside of that, but I would touch back with it. I find midis and recordings really valuable in score prep because you can just touch back with them after you've spent some hours. And I love how you find something and think, 'Oh, how could I possibly over look that?' or 'That's interesting, I didn't think I would think about it that way' and so on. In Tempe and in Austria there were moments when I intentionally moved forward slightly. But I knew I was doing it and I knew where I was going to pull back. I was doing that for a reason. Partly a practical reason for the musicians and partly a musical reason. I don't know that I would, in my ideal world, do that. But for example, in the first movement the brass episode coming into measure 47 was actually very hard for the players at the tempo that's marked. It didn't sound great. It takes a lot of control to play that passage. And so what we ended up doing was, I subtly moved a little at 39, and then moved a little more when the brass came in. Not anything you would really notice, just really subtle. And then coming into 55, I slowed the pace back down to tempo. Because of course when the bass drum comes in with the electronics you have to be spot on. That worked OK. So, that's the point. You want to practice so that you're absolute and then if you feel for practical reasons that you need to do something, at least you're doing it on purpose and you know exactly what you're doing. I think I remember talking to Steven about that moment in Austria too. Also my background-I conducted a new music group for a long time. And when you're dealing with professionals in a new music group setting you have to be kind of absolute. So I've always been pretty adamant that I know what it feels like at the tempo mark, even if I decide to do something slightly different, particularly with contemporary composers, who tend to be a little bit more exact minded in their tempo markings. I mean sure, people argue about the tempos in Lincolnshire Posy, and Grainger put tempo marks. But Grainger also performed in a manner that was pretty wide open in terms of what he did. So yeah you should learn it at the tempo marks, but then decide if that feels right for your thinking. But this is different."

Bonds:

So, talk for a minute about any in-ear monitor woes.

Hill:

I didn't have a monitor in my ear, I just had a click track that came and went. The group had floor monitors that I heard fine. At ASU we put them in the back corners sort of diagonally across the group. And then in Austria they were at the sides so they were going across the group at a ninety degree angle to the audience, which was also really effective. And honesty for me, that was plenty of sound. I'm out by the house speakers anyway with more than enough sound. I am not a fan of a click track in

one ear because when you block one ear from hearing, everything is distorted.

Bonds:

Yes. I thought you had an in ear monitor for yourself and I knew there would be some woes with that as a conductor because your personal hearing is sacrificed.

Hill:

Initially the plan was that the conductor would wear a haptic watch. And we had one there and we tried it out the week of the premier. It would work for a minute or two and then it would stop, the signal would be lost, so we ended up going to a hardwired click track to be sure that it was there. And it was really disappointing. Not only was it nice to have your hearing completely there with the haptic watch just pulsing on you. But it was also really cool because it pulsed in colors. So the original plan was for that all to be a part of the affect of the piece to have this glowing thing on the conductors wrist, be wearing solid black, and would look that much more robotic. But we had to go back to the click track. In Austria I worked it out so that I could take the earpiece in and out easily. At ASU there just wasn't time to mess around with a lot of that. I basically had it taped in my ear and then I took it out during the Ives. But in Austria I could pop the earbud in and out when I knew the click track was coming. So that was much nicer. At least I had my hearing a good chunk of the time. Yes, the monitor business is not much of an issue because as you know, the electronic parts are pretty strong. And the longer you spend with it, the more you know the subtle cues in the electronic parts.

Bonds:

Right. He did do a good job of giving you the free space plus, the warning space, plus the go time. I feel like he did that in most of his transitions.

Hill:

Right. We didn't have a click track the first rehearsal in Austria and I was almost completely spot on without it. But you know, there's just that slight deviation in all human beings, so I wouldn't recommend doing it without a click track.

Bonds:

You said you had most of your rehearsals in Austria with the electronic component. So, do you feel like that is definitely the way to go? As I write this and encourage conductors to step into this electronic space if they never have, this will be a question they have; whether or not to set up the electronics every rehearsal. I want to answer that for them.

Hill:

My suggestion would be-- assuming that the group is pretty good and they can read the material-- my suggestion would be to do the first rehearsal with the electronic part. I think that people need to have a sense of what the whole piece sounds like. We didn't get to do that before the premier. But it worked great to have that option in Austria. And then at some point along the way it's very fruitful to rehearse without it. Just to clear up

some issues that are specific within the group, and there are lots of little things. But I think starting with the electronics and then shutting them off for a few rehearsals, clean up the actual playing part to where it should be, and then put the electronics back in is probably the best way to go.

Bonds:

Did you ever find it cumbersome in a way that you could only start at certain points during the rehearsal? With the alignment of cueing and the click track were there enough various starting points that it made it easy?

Hill:

Yes, there are so many electronics cues that it really is not difficult. That part is actually great.

Bonds:

So, I've not seen the part for the electronics player yet. They have an actual score to read from and they trigger the electronics at the appropriate time on the synthesizer essentially, right?

Hill:

Well, there's a synthesizer and a laptop. So there's a double set of triggers. There's a specific code in the laptop that you have to be involved with. And then there are also triggers on the synthesizer. So the safest way to do it is with two people. You can do it with one for sure if someone has had a lot of time with it. But, it's safe for two. In fact, one of the conversations you will want to have with Steve is, 'How is the electronics part now transcribed?' because that's changed, and is changing. Dennis Lineas and Serena Weren were the two people on that in Europe. They had a lot of suggestions for Steve to consider, and Steve thought they were all great ideas. So, in other words, the electronics people will have more information in the future than they had at the premier, which is helpful.

Bonds:

I've also got a plan in the next couple of weeks to get with Bruce who helped your group at ASU to manage some of those electronics."

Hill:

Yes, Bruce Mansfield and Also Justin Hubbard. I think the person, if you really want to talk to someone who has sort of a big picture idea about that, contact Serena Weren. She teaches at Loyola in New Orleans. I would suggest contacting her simply because she just did it in Austria and it's fresh on her mind as the 2.0 version now with what's going on. She would be able to offer a lot about the electronics part from a performer's standpoint.

Bonds:

That's great. I feel like this component is going to be the biggest question mark for future conductors of the work.

Hill:

Yes. I think Steve has done it so well and laid it out so well that nobody should have any trepidation about it. It's really not difficult. The difficult part is getting the balance right. And frankly at this point, I've only ever done it with Steve on the board. And so the beauty of that is that at each

performance now he's been on the board, which gives him the information about where to set things up so that ultimately no one will have to ride the board.

Bonds: That's true. But Steven likes to do that.

Hill: He does like to do that. But every group is a little different so it's never going to be set in stone, so to speak. And of course every system one uses

is different. At ASU there was no way I could have heard the click track.

Bonds: You all were pushing a lot of sound off the stage at that climax near the

end of the fourth movement.

Hill: Off the stage and out of the speakers. So I had one of the guys on the

electronic part to visually give me pulse for those four measures because I couldn't hear the click track. But I wanted to be spot on at the moments that really count. Travis Cross noticed and said, 'Ah, I see you had a drum major on the side there.' Which was basically what it must have looked like but it was a completely pragmatic thing. I literally could not hear the click even though it was right in my ear. And I didn't want to turn up the volume because I didn't want to blow an eardrum. And I know you had a question about that too. I, just as a matter of course in rehearsals, I suggest that players have ear protection. That's becoming more of a commonplace thing. Depending on what your rehearsal room and what you're working on—I mean if you're working on a Mozart serenade you may not need that—but my goodness, with a lot of contemporary band literature you do. In our rehearsal rooms at ASU it's pretty strong when a group of mature players plays full out. So there are two things I always did for my time there. One was that I always told players, 'We're going to be working on this passage next rehearsal, please bring ear protection.' But the second thing was that I don't rehearse the loud moments of any piece very much. Like when we did 'Wine-Dark Sea' I told the players, 'We're going to rehearse this last movement on an airstream quite a bit of the time. And we're only going to play this climax about three times before the concert.' Because in our room it's distorted. It's just too loud. It was the same with that part in Steve's piece. I told them we would only do it a few times because that's all our ears can manage. And, sorry to be bouncing around, but speaking of that this is another rehearsal thing that I would highly recommend for people at that particular moment: It's really fruitful to rehearse that around mezzo-forte and just listen to the harmony and listen to the chords. In that climax it's so loud and if you don't have a sense of what it really sounds like just as a chorale being played with a nice full sound without over the top volume, then you're probably not going to do a very good job with it when the electronics are there and you're playing full out. So we rehearsed that, both at ASU and in Austria, we rehearsed

from measure 382 to the end a few times just as a nice, mezzo-ish, beautiful chorale. And I think most people would probably do that. But that's really mandatory.

Bonds:

Speaking of this area of the work, I think it was the most—I hate to use the word offensive—but I almost think that's what Steve had in mind when he was thinking lighting.

Hill:

Oh absolutely! He wanted to disturb people, really disturb people, at this moment.

Bonds:

Well, the goal was achieved. I was really drawn in by the clicks that led up to that moment. It was just a little moment and all of the sudden those lights came on, and it hurt. And I think that was his intention musically.

Hill:

Absolutely. And in fact, in his dream lighting world, which we couldn't do because of cost, he wanted to have sets of blinders (which are basically super high-powered strobes) he wanted to have sets of blinders shot out in the audience at that point, which would have been even more disturbing. It would have been like being inside a crime scene from every seat. But the cost of that was prohibitive. But yes, his intent was for that to be so disturbing that you really thought about what was going on in our world. And then to have the last movement be a relief. He also by the way, and you can ask him about this, the click is a reference to his previous piece. 'Ecstatic Waters' has that moment.

Bonds:

I thought I remembered that. And I was going to chat with you a little about 'Ecstatic Waters'. Let's get there in just a minute.

Hill:

Yeah, it was on purpose that that click is there. He loves that setup but he also did it on purpose so that people who've done 'Ecstatic Waters' would be thinking, 'Oh, I know what's coming' and they're thinking that sort of 'James Bond' moment. But that's not quite what happened.

Bonds:

What other lighting concerns are there? Did you have all of the lighting in Austria?

Hill:

No, there were no lighting effects in Austria.

Bonds:

OK. So he's OK with the piece being performed without the lighting.

Hill:

Absolutely.

Bonds:

But I think it added so much, Gary, to what you all did at ASU.

Hill:

It did. And in the ideal performance...well...We started out from the point of, 'What if everything we dreamed of could happen?'. But, Steve treated this like a complete package; lighting, sound, everything. And he said,

'Well in my perfect world, here's what the lighting ideas would be.' And he and the lighting guy talked and budgeted it out. But I said, 'Steve, we can't do that much'. Part of that is because our hall is a union hall. If you had a hall where things are run by students you could probably get a lot more done for a lot less. So we had to get the lighting down to about a tenth of the imagined cost, so we worked with the lighting guy and it all came out fine. It was effective, but in Steve's dream world he would love to have it even more effectively done. However the performance in Austria, and I think probably the performance at WASBE in Spain, there was no lighting and it's still very effective. So it's not like it's a 'have to' but I think it would be awesome if someone has the capability to do it and can pull it off. I can imagine a really spectacular high school band—and there are as you know several dozen of those around the country. But I could imagine a spectacular high school band making this the big project for the year and working with their theater department, making it more like a marching band show investment, and pulling it off in a spectacular concert with lighting and sound and all of that. And I won't doubt for a minute that that will happen in the future.

Bonds:

So, in terms of rehearsing with the lighting, what were some hiccups that you found along the way? Did you have to sort of learn a different language to speak?

Hill:

Well first the biggest hiccup was that there was a circuit blown. I think a lot of people were aware, but a lot were not. I had no lights the second half on my music until about midway through John's piece when the lights finally came up on stage. And even more frightening, the players in the first row didn't either. So the first thing that happened on the second half of the concert was that the fuse that operated our stand lights blew, and we had no stand lights for the second half. Luckily the players had enough ambient light from behind them that they could see. And I just kind of thought, 'OK here we go, this will be a major challenge'. And in the case of Steve's piece, it's a good thing there aren't too many meter changes because, man, it was scary. But all of that aside, that was just a quirky one-time thing that happens. But that aside, the only time that the lighting was done exactly like it was on the concert was at the concert. So the lighting guy and Steve literally, the night before the concert, literally had a lighting rehearsal.

Bonds:

Yes. He mentioned he had been up late rehearing the lighting guy.

Hill:

Right. So the day before the concert we had a dress and the group got a sense of what it would be like. Just kind of a general taste. But of course everyone had stand lights, nothing failed, it was all great. So we weren't worried about it—the players weren't, I wasn't. Steve and the lighting

guy had spent plenty of time together and nobody was worried about a thing. And then the little incident happened. But the lighting at the concert, that was the first and only time that that lighting occurred. So there isn't any discussion about how the lighting was at the rehearsal because there wasn't any. In the ideal world, it would be great to rehearse with the lighting cues, and it would have been much more polished. But it is what it is.

Bonds:

So there aren't actually lighting cues written into the score or anything? That's all just added layers of artistry?

Hill:

Right. But I'm sure if you talk with Steve, I know he does have a specific lighting scheme or a big picture general idea lighting scheme that he'll probably share with you. So rehearsing with the sound is one thing, rehearsing with the lighting of course is another thing.

Bonds:

I would imagine that if I had my whole ensemble and the lighting guy, we wouldn't necessarily need to have that first rehearsal with lighting, if we were blessed to have multiple rehearsals, we wouldn't have to have the ensemble the first time we got with the lighting guy. We could walk through and do some things, set some ideas, and then bring folks in.

Hill:

That would definitely be the way to do it.

Bonds:

So, to dive over to 'Ecstatic Waters' for a minute; There are ten years between the two works. We both know that obviously the electronic space in Steve's writing has taken a large leap from 'Ecstatic Waters' to this piece. What are some other characteristics that you see he's held to from 'Ecstatic Waters', in terms of composition.

Hill:

I think Steve is one of a handful or so of people who can write electroacoustic music that doesn't sound like electroacoustic music. It just sounds like an organic, organized, beautiful package of sound. I don't think that's changed. I think he's had that gift for a long time. What's changed is exactly what you said. The ability to create more sounds and his ability to make that palette more complex has grown of course. It's fantastic.

Bonds:

I've not been tracking the change in electronic capabilities. But I would imagine over the course of the decade that just the availability and tangibility, and ease of use have become insanely easier to manipulate.

Hill:

Right. So we played Steve's trombone concerto with Joe Alessi in early November and Steve came, and as part of the rehearsal we recorded for him a set of chords and some notes and passages. Then he sat together with the clarinet player by herself and recorded samples. He recorded a

couple dozen samples in November and then he went back and a lot of that of course is in the electronic part.

Bonds:

Right. So at the end of that fourth movement, when the big chord is taken over by the ensemble. It's literally the ensemble recorded and the electronic sound overtakes. That's really—cool—I don't know any other word to put there.

Hill:

It is very cool. And there are moments too when you wonder, 'Is that the clarinet player or is that the clarinet player's echo, or what is that?' Yeah, it's pretty cool.

Bonds:

Well I am still going through the work, working through harmonic analysis. I've been toying around looking at even the consistency maybe of a cell of notes derived from how Steve stacks his chords that are a major third away, and how they interplay with each other.

Hill:

Well, it's cool. And if you listen to the clarinet line during those solo moments of course you realize that's just kind of the outline of everything. It's completely organic and it also creates earworms that last for weeks.

Bonds:

Very well said. That is on the record, ha, earworms that last for weeks.

Hill:

Definitely. It took several weeks after leaving Austria for those to go away again. Yeah it's very organically written. Steve is a heck of a composer. I'm glad you're doing an analysis of it, you can tell me all about it.

Bonds:

I'll share it with you when it's all finally done!

Hill:

I'll look forward to it.

Bonds:

Well Gary, I appreciate your time. Do you have any other thoughts?

Hill:

Only to reiterate what I said at the very beginning of our conversation, Corey, and that is that I think this is a very important work. Because it encompasses a very powerful social message with musical language, if you will, or musical sounds. Look at our repertoire, and I'm going to use a very strange analogy which won't make any sense to you or probably a lot of people. But for me this is very quickly becoming like, 'Music for Prague'. For the players it's not at that level of complexity or technique. It's demanding, but it's a different kind of demanding. But the message that's there for our moment in time is every bit as salient as was Karel's message through 'Music for Prague'. And for me, of course I'm obviously biased, but I think this is an extraordinarily important piece.

Bonds:

I will do my very best to try to convey that.

Hill:

Obviously I'm probably closer to it at this point than anyone except Steve. But that's the way I feel about it. I feel like it's a completely salient piece for our moment in history. And because of that it's an extraordinarily important piece. We're doing a recording session in early September. I'm returning to the scene of the crime, ha. We're going to record and then Steve's going to be able to put together, I hope, a really nice recording of it. Although you know with a piece like this it will never be the same as live. It's like as good as the Texas recording of 'Circus Maximus' is, it's just not the same thing. But nonetheless, you have to have some sort of frame of reference for it.

Bonds:

Absolutely. I think that a reference recording is going to be important as conductors begin to step up to the plate with this work.

Hill:

I hope to do this piece many times. I'm doing an intercollegiate band in February and I'm hoping that the guys will let me program this. I do believe in this piece as a philosophical statement that is so important for us right now.

Bonds:

Yes, I was just going to say, I don't want to package this as political music, it's not political music. It is music for humanity's sake, and that really has to come across.

Hill:

Yes. I agree with you, Corey. And I think ultimately that's what Karel's piece became.

Bonds:

Absolutely. What started out as a socio-political war piece, I think it became a much larger statement.

Hill:

So I don't have anything more. If there are things that come along, we can always talk again or feel free to email me. I'd be happy to help.

Bonds:

Okay. I really greatly appreciate this so much.

Hill:

You bet! Enjoy the process man, I'm so glad you're doing this. This is just really cool.

Bonds:

Well I really appreciate it and I'm sure I'll be in touch as the writing unfolds.

Hill:

You bet. Take care!

### Appendix C

#### Errata

The following set of errata is the most recently available list available from the composer. As errors are corrected, new versions of the work may become available. For the most up-to-date information, conductors should visit the work's webpage on the composer's website, <a href="https://www.stevenbryant.com/music/catalog/the-automatic-earth">https://www.stevenbryant.com/music/catalog/the-automatic-earth</a>.

MEASURES	INSTRUMENT	DESCRIPTION
31	Flute 1	C-flat on the middle note of the triplet (so that it is in octaves with the Clarinet)
61-172	Perc. 3	change SUS. CR (sm) to SPLASH CYM. (very bright, fast reaction time)
201	ALL	missing dim. In parts?
397	ELEC, Keyboard	add m. 397 Clarinet cue
415-420	Tuba	Change CUE in Tuba part from Euph. to Contrabass (makes it a playable alternative
133-164	ELEC	show clicks, silence and more elec info in score
306	ELEC, Keyboard	length of fermata – 15" – note about beginning m. 307 shortly after pulsing backward piano sounds finish
382	Score	note to conductor about laptop operator providing visual click cue if necessary
440	Perc	"Not necessary to synchronize with the electronics.  Fade gradually and seamlessly into the pre- recorded texture"
343-344	Harp	remove unnecessary "C#->C-natural" indication
344-345	Harp	redo pedal changes – keep Db, and remove switch in 344.

MEASURES	INSTRUMENT	DESCRIPTION
103	Tpt 4	missing slur over 8ths (score only)
125-128	Tpt 2	missing slurs (score only)
125-126	Tpt 1	missing rest in score only (only Tpt 2 plays in these bars, but it's not clear in the score)
170	Tpt 4	missing slur over 8ths (score only)
176-177	Tpt 1	missing rest in score only (only Tpt 2 plays in these bars, but it's not clear in the score)
175-179	Tpt 2	missing slurs (score only)
182-184	Tpt 3,4	voices are swapped – Tpt 3 should have upper line, Tpt 4 the lower line.
184-191	Tpt 3,4	voices are swapped – Tpt 3 should have upper line, Tpt 4 the lower line.
357	Harp	Add tuning change: "G->G#, Db->D-natural"
132-133	Tenor Sax	slur should start on middle note of triplet on beat 4 ("F) and continue throughout descending run
203	Piano	"una corda" may be used throughout Mvt. III if desired to create the appropriate dynamic and sense of intimacy
292	Horn 2,4	change to be in unison with Horn 1,3
288-289	Euph 2	continue doubling Euph. 1 through "Eb", rest on beat 3 of m. 289
291	Alto Sax 1	remove slur over final 3 8th-notes in bar (match Horns)
291	Bsn 1	remove slur over final 3 8th-notes in bar (match Horns)
289-290	Tbn 2	extend slur to include "Eb"
317	Alto Sax 1	suggested fingering for multiphonic: some variant of Low Bb seems to work well
321	Alto Sax 1	add "p"

MEASURES	INSTRUMENT	DESCRIPTION
325	Alto Sax 1	add "p"
396	ALL	add diminuendo hairpin
381	Alto Sax 1,2	missing hairpin crescendo in parts only
186	Harp	change Harp RH 16th run to a single octave to make it playable (because LH is playing palm slap)

#### COMPREHENSIVE CONDUCTING RECITAL #1

# Campbellsville University Concert Band and Wind Ensemble Ransdell Chapel

#### Program Performed:

Magnolia Star (2012) Steve Danyew (b. 1983)

Campbellsville University Wind Ensemble – May 1, 2017

Easter Monday on the White House Lawn (1911) John Philip Sousa (1854-1932) Campbellsville University Wind Ensemble – May 1, 2017

First Suite in E-Flat for Military Band (1909) Gustav Holst (1874-1907)

I. Chaconne

Campbellsville University Concert Band – April 27, 2017

Urban Dances (2005) Erik Morales (b. 1966)

Campbellsville University Concert Band – March 6, 2017

Dusk (2004) Steven Bryant (b. 1972)

Campbellsville University Concert Band – April 27, 2017

New Colonial March (1901) R.B. Hall (1858-1907)

Campbellsville University Concert Band – April 27, 2017

Clash (2008) Ryan Main (b. 1984)

Campbellsville University Concert Band – March 6, 2018

Variations on a Korean Folk Song (1965)

John Barnes Chance (1932-1972)

Campbellsville University Concert Band – March 6, 2018

#### COMPREHENSIVE CONDUCTING RECITAL #1

#### Program Notes:

#### Magnolia Star (2012) - Steve Danyew

Magnolia Star was a train that ran from New Orleans to Chicago with the famous Panama Limited in the mid-20th century. This work evokes train travel with driving rhythms and uses the blues scale as the primary source for melodic and harmonic material. An incessantly forward moving meter of 7/8 adds a layer of complexity and interest for both performers and conductors. A three-part (ABA) form, the work boasts many blues-based motives and quickly-tossed melodic ideas in fast opening and closing sections, which surround a slow, lyrical flute solo. All comes to a speeding finish, with thickening polychords and layered melodies. The composer writes this about the work:

When I was playing saxophone in my middle school jazz band, we started every rehearsal the same way — with an improvisation exercise that our director created. It was a simple yet brilliant exercise for teaching beginning improvisation and allowing everyone in the band a chance to "solo." As a warm-up at the opening of each rehearsal, the whole band played the blues scale ascending, resting for one measure, descending, and resting for another measure. During the measures of rest, each member of the band took turns improvising a solo. Looking back, this exercise not only got the band swinging together from the start of rehearsal, but it made improvisation, a daunting musical task to many, seem within everyone's abilities.

This experience was my introduction to the blues scale, and I have long wanted to write a piece inspired by this group of pitches. In *Magnolia Star*, I explore various ways to use these pitches in harmonies, melodies, and timbres, creating a diverse set of ideas that will go beyond sounds that we typically associate with the blues scale. I didn't want to create a "blues" piece, but rather a piece in my own musical voice that uses and pays homage to the blues scale. Nearly all of the pitches used in *Magnolia Star* fit into the concert C blues scale. It is interesting to note that embedded within the C blues scale are both a C minor triad, an Eb minor triad, and an Eb major triad. I explore the alternation of these tonal areas right from the start of the piece, and continue to employ them in different ways throughout the entire work.

Another influence was trains and the American railroad. The railroad not only provides some intriguing sonic ideas, with driving rhythms and trainlike sonorities, but it was also an integral part of the growth of jazz and blues in America. In the late 19<sup>th</sup> century, the Illinois Central Railroad constructed rail lines that stretched from New Orleans and the "Delta South" all the way north to Chicago. Many southern musicians traveled north via the railroad, bringing "delta blues" and other idioms to northern parts of the country. The railroad was also the inspiration for countless blues songs by a wide variety of artists. Simply put, the railroad was crucial to the dissemination of jazz and blues in the early 20<sup>th</sup> century. *Magnolia Star* was an Illinois Central train that ran from New Orleans to Chicago with the famous *Panama Limited* in the mid-Twentieth Century.<sup>117</sup>

Steve Danyew (b. 1983) holds degrees from the Frost School of Music at the University of Miami and the Eastman School of Music. Danyew has held composer residencies, presented lectures and coached ensembles at schools throughout the United States. He serves as an instructor in the Arts Leadership Program at the Eastman School of Music, where he teaches a course on creative music careers. He is an avid saxophonist, frequently performing his own chamber music compositions and transcriptions for alto saxophone. *Lauda, Entrata,* and *Vermont State Fair* are some of Danyew's other works for wind band, while his catalog also boasts various other subgenres, including *Alcott Songs* for soprano and chamber winds and *This World Alive*, a project for Wind Ensemble and Film.

<sup>&</sup>lt;sup>117</sup> Steven Danyew, "Magnolia Star", stevedanyew.com, accessed March 10, 2020, <a href="https://www.stevedanyew.com/store/magnolia-star">https://www.stevedanyew.com/store/magnolia-star</a>.

#### Easter Monday on the White House Lawn (1911) - John Philip Sousa

The American "band" and its highly associative name of John Philip Sousa are no stranger to performance halls around the world. This piece ascertained its place in musical history as an alteration to the last movement of his concert band suite titled *Tales of a Traveler*, an inspiration of his "round-the-world-tour" of 1910 -1911. Many composers alter their own works, often years after the originals have been performed several times. Sousa, however, seldom did this and his reasons for doing so are not fully understood.

This work captures Sousa's memories of the grand event upon which the piece received its name. Easter egg-rolling in Washington is an American tradition which began during President James Madison's administration. Dolly Madison, charming wife of the President, initiated this tradition in 1816, perhaps patterned after the ancient Egyptian ceremony of rolling colored eggs toward the pyramids. In the American version, children roll colored eggs with spoons, and the child the fastest egg wins.

The 44<sup>th</sup> Congress banned egg-rolling on the Capitol grounds in 1880, whereupon President Rutherford B. Hayes invited children to continue this exciting activity on the White House Lawn. President Benjamin Harrison introduced music for the event in 1889, with none other than John Philip Sousa directing the Marine Band. Thus Sousa was present at three "egg rolls" before leaving the Marine Corps, and it is probable that his own children even participated. The event has been held at the White House ever since and has grown in popularity to the extent that it now rates much media coverage. Sousa's fond memories found in his performance notes following his final coast-to-coast tour of 1928 read, "With the children rolling eggs, dancing and romping, a scene of

animation persists itself: the elders, from the President to the merest passersby, look on the scene with joy and pleasure."<sup>118</sup>

## First Suite in E-Flat for Military Band (1909) - Gustav Holst I. Chaconne

In a time when the bands of Sousa and Gilmore were reaching wide audiences with music of popular dance, marches, and transcriptions galore, original works of artistic merit for the concert band were scarce. *First Suite in E-flat* by Gustav Holst (1874-1932) is broadly considered the first major original work for the concert band genre as we know it today, a derivative of the military traditions written for by composers such as Reica, Gossec, even Berlioz. Holst himself is generally recognized as a one of England's greatest composers through the turn of the 20<sup>th</sup> Century. But it was actually his teaching career that provided his compositional outlet for much of his oeuvre, as he served as the music teacher for a parochial school in the Hammersmith district of London.

Revolutionizing in the treatment of written parts, Holst requires a soloist approach be used by the performers, eliminating many of the unnecessary doublings that were present in music of the early 20<sup>th</sup> century in other band works. Using a three note figure as a unifying motive across the entire suite, Holst gives constant attention to his balance of content and form, shifting textures from blocked consorts to small chamber music to full tutti ensemble sonorities. The folk song style is utilized throughout the work, but all melodies are original to the composer. Movement I, "Chaconne," presents a theme and

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 $<sup>^{118}</sup>$  John Philip Sousa, Easter Monday on the White House Lawn (San Antonio: Southern Music, 2000), 2.

fifteen variations; Movement II, "Intermezzo" is in two contrasting sections, the first being light and detached, the second being that of legato expressivity; Movement III, "March," is a three-part form, where climax culminates in the simultaneous return of both the marching theme and its contrastingly legato second theme.

First Suite received was not premiered until 1920, eleven years after being written in 1909 and it joins works by Vaughan Williams and Gordon Jacob as landmarks of the British wind band traditions. Richard Goldman says about the work – "established a new style of idiomatic band writing and, one might say with all justice, a new conception of band sound and of the kind of forthright music most suited to the performing medium…no more effective pieces have been written for band."<sup>119</sup>

#### **Urban Dances** (2005) - Erik Morales

Erik Morales (b. 1966) approaches melodic and harmonic vocabulary in a unique way. Having composed in several genres and settings, his works are performed worldwide as his works strike a balance between artistic and educational literature. He earned a bachelor's degree at the University of Louisiana – Lafayette. In addition to his works for wind band, Morales has made a substantial contribution to the repertoire for

<sup>119</sup> Richard Goldman, *The Wind Band: Its Literature and Technique* (Westport, CT: Greenwood Press, 1974), 225.

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trumpet and trumpet ensembles, with his *Concerto for Trumpet in C and Piano* being premiered in 2009 at the International Trumpet Guild conference. 120

Rhythm is the key element of this vibrant and contemporary piece. A full sonority of wind band color is explored, as lively woodwind patterns interplay with heroic brass gestures and bold percussion statements. Persistent throughout, two contrasting rhythms intertwine throughout the work to establish an entrancing ostinato, which underscores an often-sustained progression of harmonies and long, lyrical lines.

#### Dusk (2004, revised 2008) - Steven Bryant

Steven Bryant (b. 1972), winner of the ABA Ostwald award and three-time winner of the NBA Revelli Award, has reshaped the wind ensemble genre. A prolific composer regularly performed throughout the world, his substantial catalogue contains works for wind ensemble, orchestra, chamber ensembles, and electroacoustic music for each idiom. Bryant, having studied composition with John Corigliano, Cindy McTee, and Francis McBeth, consistently conveys an affinity for structure, motive, dissonance, silence, improvisatory qualities, and technology in his compositions.

Dusk is a simple, chorale-like work, contemplative of the calming mood that shapes those aptly named hours of each day, though the sky remains unexpectedly colored by the blazing sunset. Bryant remains "always struck by the dual nature of this

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<sup>&</sup>lt;sup>120</sup> Erik Morales, "Biography" moralesmusic.com, accessed March 10, 2020, <a href="https://moralesmusic.com/index6/sample-page/">https://moralesmusic.com/index6/sample-page/</a>.

experience, as if witnessing an event of epic proportions silently occurring in slow motion."<sup>121</sup> Filled with long, challenging, sustained tones and cluster chords. The work intends to evoke the dramatic stillness of these moments occurring at evening's onset. Additionally, *Dusk* is one work of a three-part "night cycle", which also includes *The Marbled Midnight Mile*, and concluding with *First Light*.

#### New Colonial March (1901) - Robert Browne (R.B.) Hall

Robert Browne Hall (1858-1907) is known to many as the "New England March King," as he principally composed approximately seventy-five marches and music for brass bands, living most of his life in the state of Maine. However, his music eventually embarked a popularizing trans-Atlantic journey, bringing him even greater popularity in the United Kingdom, which is the native homeland to many brass band enthusiasts that go so far as to boast him as an English composer. Hall's music resounds in courtyards and concert halls as well-known traditional staples in brass band concerts and competitions through Great Britain, continuing to uphold his stature as an international composer.

Born in a musical family, Hall's parents both contributed to his early music education. His father was a celebrated cornet player; his mother was an accomplished performer on piano, guitar, violin, and harp. Brown's father would pass away when Robert was sixteen years old, encouraging him to embark upon cornet studies himself.

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<sup>&</sup>lt;sup>121</sup> Steven Bryant, *Dusk* (Durham, NC: Gorilla Salad Productions, 2008), 2.

Soon thereafter, he became the leader of his own Richmond Cornet Band and subsequently the leader of the finest, most active band in the state of Maine, The Bangor Band. Meanwhile, Brown established himself as a well-known cornet soloist in the Northeast United States, so much so that the state of Maine annually celebrates the last Saturday in June as the official Robert Browne Hall Day.

New Colonial March was first published in the United States in 1901, and was dedicated to John Behr, a director of the Germania Brigade Band of Boston. Most of Hall's compositions, including *New Colonial March*, are characterized by delightfully lilting melodies, often composed in a compound 6/8 meter. The march's trio section, often described as the most memorable trio melody among all marches, serves additionally as Stanford University's official song. Perhaps a little-known fact, this is a common duality of function held by marches and folksongs of the sort.

#### Clash (2009) - Ryan Main

Award winning composer Ryan Main (b.1984) is frequently published and is acknowledged internationally as a leading modern day composer by performance of many works in both the wind band and choral setting. Probably more-known for his work in the area of choral music and choral education, Main serves the city of Kansas City as artistic director of the Youth Chorus of Kansas City, and holds degrees from the Peabody Institute at Johns Hopkins University and the University of Missouri - Kansas

City Conservatory of Music and Dance. This piece was premiered by the UMKC Wind Ensemble under the direction of Dr. Joseph Parisi in 2006.

The work itself is designed to move the listener through a world of conflict, using the presence of oppositions, or clashes, in order to bind and unify the work. Dissonant minor second intervals pulsate amidst lush, lyrical melodies. Main suggests conflict "in the large conflagrations ignited by the percussion, in the dueling senses of calm and anxiety in the middle section, and in the battling percussion and winds in the finale." Persistence in eighth note pulse drives a sense of true urgency throughout the work, exciting listeners and performers alike as the work moves its way toward a climactic finish, only to be outworked by the eighth note pulse in the end. *Clash* is the recipient of the 2008 Merrill Jones Composition Competition.

#### Variations on a Korean Folk Song (1965) - John Barnes Chance

John Barnes Chance (1932-1972), in an article he wrote about *Variations on a Korean Folk Song*, states that he "became acquainted with the folk song 'Arrirang' while serving in Seoul, South Korea as a member of the Eighth United States Army Band in 1958-1959. The tune is not as simple as it sounds and my fascination with it during the intervening years led to its eventual use as the theme for this set of variations." The folk song itself has been connected with such emotional expressions as love, sorrow, or

 $^{124}$  John Barnes Chance, "Variations on a Korean Folk Song,"  $\it Journal\ of\ Band\ Research\ 3$  (Fall 1966): 13.

<sup>&</sup>lt;sup>123</sup> Ryan Main, *Clash* (Exton, PA: Wingert Jones, 2009), 2.

oppression, but boasts numerous regional versions of the lyrics that make it difficult to pin down one specific meaning. Chance's work incorporates pentatonic melody with triadic harmonies, and requires a wide range of expression and style. The theme and its five variations climax in a juxtaposed statement of the melody's antecedent and consequent phrases during the final variation. The work received the prestigious American Bandmasters Association Ostwald Award in 1966.

Chance, a native of Texas, began his compositional career at the age of 15, attaining both his undergraduate and master's degree from the University of Texas at Austin, studying composition with Kent Kennan and Clifton Williams. Other masterworks for wind band by Chance include *Incantation and Dance* (1960), *Elegy* (1972), his *Symphony No.* 2 (1972). His oeuvre is vast, including music for wind band, chorus, orchestra, chamber ensembles, and solo works. He was actively servings as professor at the University of Kentucky at the time of his death in 1972. 125

<sup>&</sup>lt;sup>125</sup> Robert Meunier, "Variations on a Korean Folk Song," *Teaching Music Through Performance in Band Vol. 1*, ed. Richard Miles (Chicago: GIA, 2010), 590-598.

#### COMPREHENSIVE CONDUCTING RECITAL #2

#### Campbellsville University Concert Band and Wind Ensemble

#### Ransdell Chapel

#### Program Performed:

Psalm for Band (1952)

Vincent Persichetti (1915-1987)

Campbellsville University Wind Ensemble – April 29, 2018

They Led My Lord Away (1990)

Adoniram Gordon (1836-1895)

arr. by Fred J. Allen (b. 1946)

Campbellsville University Concert Band – April 24, 2018

Second Suite in F for Military Band (1911)

Gustav Holst (1874-1934)

III. Song of the Blacksmith

IV. Fantasia on the Dargason

Campbellsville University Concert Band – April 24, 2018

Waking Angels (1996)

David Gillingham (b. 1947)

Campbellsville University Chamber Winds – April 29, 2018

Foundry (2011)

John Mackey (b. 1973)

Campbellsville University Wind Ensemble – April 29, 2018

*The American Way* (1955)

Karl King (1891-1971)

Campbellsville University Concert Band – April 24, 2018

#### COMPREHENSIVE CONDUCTING RECITAL #2

#### Program Notes:

#### Psalm for Band (1954) - Vincent Persichetti

American composer, organist, and educator of theory and composition, Vincent Persichetti was born in 1915. A native of Philadelphia, Pennsylvania, he began formal music training at five years of age, enrolling in music theory at the local college at age nine, and presenting his own compositions in public concert by age fourteen. In all of this, Persichetti quickly established himself in position for a grand musical career. At age twenty, he served simultaneously as head of the music department at Combs College, a conducting major with Fritz Reiner at the Curtis Institute, and a piano and composition student at the Philadelphia Conservatory. By thirty, extensive compositional recognition occurred, and he eventually earned the chair position of the composition department at the Julliard School. 126

Persichetti composed in nearly every musical medium, including opera, orchestral works, chamber works, songs, choral music, and keyboard works; but he is most widely acclaimed for his contributions to the wind band. His first composition for wind band, *Divertimento*, was written in 1950; *Symphony No. 6* (1956) remains his most celebrated work for wind band; and his final work for wind band, *Parable IX* (1972), stands as one of the most challenging works in the still-expanding repertoire.

<sup>126</sup> Simmons, Walter G. "Persichetti, Vincent." *Grove Music Online*. 2001; Accessed 14 Mar. 2020. <a href="https://www-oxfordmusiconline-com.ezproxy.uky.edu/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000021384">https://www-oxfordmusiconline-com.ezproxy.uky.edu/grovemusic/view/10.1093/gmo/9781561592630.001.0001/omo-9781561592630-e-0000021384</a>.

Psalm for Band (1952) is a constructed from a single harmonic idea developed over time, and is based on a psalm that the composer wrote for use in worship, published in 1956 as part of his Hymns and Responses for the Church Year. Use of this small hymn collection crosses over into other instrumental works by Persichetti, including that of his slow second movement of Symphony No. 6 (1956). There are three separate sections easily discerned in *Psalm for Band*. First, a sustained chordal mood focuses on the various orchestration colors of the ensemble in consorted presentation, often using phrase elision to collide melodic contours. Secondly, a forward-moving chorale uses similar material to that of the first section, but in more expansive gestures in both harmony and registration as each consort is presented. Thirdly, an onslaught of short rhythmic motives are presented through imitative counterpoint, and rhythmic translations of similar motivic themes are presented in the tenor and bass drums. The piece was commissioned by the Alpha Chapter of Pi Kappa Omicron National Band Fraternity at the University of Louisville, and was premiered and conducted by Persichetti in 1952 by the University of Louisville Concert Band. 127

#### They Led My Lord Away (1990) - Adoniram J. Gordon / Fred J. Allen

Fred J. Allen (b. 1953) is a teacher, conductor, arranger, and composer, spanning a career of forty years, twenty-four of which came as Director of Bands at Stephen F.

Austin State University in Texas. He also spent time serving at Abilene Christian

<sup>127</sup> Vincent Persichetti, *Psalm for Band* (Bryn Mawr, PA: Elkan-Vogel, 2015), p. 2

University and two public school districts in Texas. His teaching in areas of conducting, wind literature, rehearsal techniques, instrumental methods, and orchestration was acknowledged by the 2012 Meritorious Achievement Award from the Texas Bandmasters Association. He hold membership in the American Bandmasters Association, Phi Beta Mu, College Band Directors National Association, and ASCAP; he has published many works for band, orchestra, and flute choir that have been performed across the United States and internationally. 128

The original version of *They Led My Lord Away* is an early American hymn tune attributed to Adoniram J. Gordon (1836-1895), who authored several texts and edited two songbooks: *The Service of Song for Baptist Churches (1871)* and *The Vestry Humn and Tune Book (1872)*. Typical of its contemporary hymnody, *They Led My Lord Away* is set as a call-response variety of hymn, where each verse ends with the congregation singing, "Oh, tell me where to find him." Allen's setting captures the idea of the original hymn setting, and frequently boasts the full color and sonorities available in the modern wind band and "maintains the dignity and plaintive searching quality of the original hymn." 129

#### Second Suite in F, Op. 28 No. 2 (1911) - Gustav Holst

Written in 1911, *Second Suite in F for Military Band* by Gustav Holst (1874-1934) was not premiered until 1922 by the Royal Military School of Music Band. Met

<sup>&</sup>lt;sup>128</sup> Fred J. Allen, *They Led My Lord Away*, (Alto, NM: TRN Music, 1990), 2.

<sup>&</sup>lt;sup>129</sup> Ibid.

with popular reception, Boosey & Hawkes responded by publishing the piece only a couple of months after its premiere. Along with his *Hammersmtih* (1930) and *First Suite in E-flat* (1909), as well as the *English Folk Song Suite* (1923) of Ralph Vaughan Williams, this work stands as one in a collection of British landmarks for the emerging concert band during the time surrounding World War I. Holst himself is generally recognized as a one of England's greatest composers through the turn of the 20<sup>th</sup> Century. But it was actually his teaching career that provided his compositional outlet for much of his oeuvre, as he served as the music teacher for a parochial school in the Hammersmith district of London.

All melodies of *Second Suite in F* are authentic English Folk Songs, mostly from Hampshire County, and thus reflect Holst's love for and interest in folk music. The first movement, "March," is in ternary form and incorporates three folk songs: "Morris Dance," "Swansea Town," and "Claudy Banks." The second movement, "Song without Words" is actually a folk song melody known as "I Love My Love." Holst presents two verses of the song form, a sorrowfully expressive melody in F minor. The third movement is titled "Song of the Blacksmith," which metrically alternates 4/4 and 3/4 and finishes with a brilliant D Major chord. The fourth movement, "Fantasia on the Dargason" uses a frolicking compound meter to state "Dargason" tune twenty-five times, with varying accompaniments, eventually superimposing the tune "Greensleeves" as the grand climax of the work.<sup>130</sup>

<sup>&</sup>lt;sup>130</sup> Robert Belser, "Second Suite in F, Op. 28 No. 2" *Teaching Music Through Performance in Band*, Vol. 1 ed. Richard Miles (Chicago: GIA, 2010): 559-567.

#### Waking Angels (1996) - David Gillingham

Waking Angels is a work for chamber winds and percussion, only requiring twenty-one musicians. It also serves as a perfect example of pluralism in music—melodic serenity, devilish chromatic descents, primitive rhythmic pulsations, experimental sounds, polymeter and polytonality, and extremes in timbre and pitch, all accompanied by a thread of a familiarity. The composer provides the following insights in the work's manuscript:

The work was inspired by the poem, 'Mercy', by Olga Broumas which is among a collection of poems on the subject of AIDS by various poets called Poems for Life. Broumas' poem makes reference to the 'sea-smoke' rising from the ocean and how it is often referred to as the 'breath of souls.' The last stanza of the poem alludes to these lost souls that Broumas has been grieving for:

they leave, like waking angels rising on a hint of wind, visible or unseen, a print, a wrinkle of the water.

Whether we choose to acknowledge it or not AIDS has profoundly affected the world in which we live. Countless numbers of people have lost their lives to this disease and a cure is not yet within reach. Through the imagery of music, Waking Angels, emanates the mysteriousness, the pain, and the ruthlessness of the disease. But, it also provides us with the warmth and comfort of hope and the peace of eternity. One my recognize fragments of the old hymn, 'Softly and Tenderly, Jesus is Calling', by Will Thompson which serves to unify the work. To me, this tune is nostalgic, having grown up among the ambience of old Gospel

hymns. I have found the melody and text comforting over the years. The hymn motive goes through a degenerative process in the work paralleling the nature of the disease. My purpose in using the hymn tune is not necessarily religious. It simply provides a source of reflection---to personally draw the listener into the music and toward a closer understanding of the pain and suffering of mankind. David R. Gillingham (b.1947) has established himself as one of today's leading contemporary composers. His current emphasis is on music for wind band, and, to date, he has over sixty published works for wind band, chamber winds, and percussion, representing nearly twenty-five years of composition. Receiving first prize in the 1990 International Barlow Competition for his work *Heroes Lost and Fallen*, along with other meritorious works such as *Concertino for Four Percussionists and Wind Ensemble* (1997) and *Apocalyptic Dreams* (1995), Gillingham's works for wind band are performed regularly across the globe by professional and school bands. He is a professor at Central Michigan University.

#### Foundry (2011) - John Mackey

John Mackey, born in 1973, is one of the most sought after composers for the wind band idiom today. He has written works across all developmental levels, including concerti for trumpet, trombone, percussion, and soprano sax, as well as his newest symphony for wind band, *Wine, Dark Sea* (2016). Mackey made sealed his fate of

success in the wind band community with two early career ABA/Ostwald Award-winning compositions, *Redline Tango* (2005) and *Aurora Awakes* (2009) and he was inducted into the same ABA society in 2013. He holds degrees from the Julliard School and the Cleveland Institute of Music, having studied with two of the nation's most revered composers, John Corigliano and Donald Erb.

Foundry embraces much of the composer's compositional voice and characteristic musical traits, providing availability to a broader range of performance ensemble. With dissonance and metallic sounds, Mackey captures the sound essence of a steel casting foundry by adding "found" items to the typical percussion section of the wind band, even stating his preference that all percussion be present in performance, even if it means borrowing players from other wind sections of the ensemble (trombones the only exception). If parts must be omitted due to numerical challenges, Mackey suggests first cutting some of the traditional percussion instruments (marimba, wind gong, and whip parts). The composer states the following about the work on his personal website:

The idea with *Foundry* was to make a piece that celebrates the fact that percussionists have this ability to make just about anything into an "instrument." Snare drums and bass drums are great, but why not write a whole piece featuring non-traditional percussion — things like salad bowls and mixing bowls and piles of wood? In some cases, I was specific about what instrument to play (timpani, xylophone, etc.). With many of the parts, though, I only described what *sound* I wanted (play a "clang" — a metal instrument, probably struck with a hammer, that creates a rich "CLANG!" sound), and allowed the percussionist to be creative in finding the best "instrument" to make the sound I described. It won't be surprising that *Foundry*, for concert band with "found percussion," much of it metallic, ends up sounding like a steel factory. The composer thanks the required 10–12 percussionists for allowing his ridiculous requests to continue. Clang. <sup>132</sup>

<sup>132</sup> John Mackey, "Foundry", ostimusic.com, accessed March 12, 2020, http://www.ostimusic.com/Foundry.php.

#### The American Way (1955) - Karl L. King

Karl L. King (1891-1971) had much of an itinerant lifestyle during his formative years, with several family moves around the state of Ohio, during which he began to develop an interest in bands and music. A cornet-turned-baritone player, King's first experience with band came in his teenage years with the Thayer Military Band of Canton, followed by similar experiences in Danville, Illinois. While performing with this bands, King began to compose several kinds of works, most of which were related to popular dances, including, of course, marches. In 1910, he began a ten-year stint as a circus musician employed by various traveling troupes, including the Barnum and Bailey "Greatest Show on Earth." King also continued to write for each of these traveling ensembles with which he associated, where in 1913, he penned his most-known work *Barnum and Bailey's Favorite*. From 1914 through 1918, King accepted positions as leader of the circus bands of which he was once a playing member, including two years as conductor of the Barnum and Bailey circus band.

In an attempt to "settle down" into married life, retirement from King's circus act landed him back in Canton, Ohio, where his love for band began. Here he assumed leadership of the Grand Army Band, only to leave the next year for Fort Dodge, Iowa to become the owner/operator of K.L. King Music House publishing company and conductor/director of the Fort Dodge municipal band — a post he held for fifty years.

During these years, the municipal band tasted tremendous success and national recognition, increasing King's public fame to both national and international levels. The American Bandmasters Association honored King with membership, where he served as ABA President in 1938, later receiving status as Honorary Life President. Upon his

passing in 1971, the city of Fort Dodge erected a life-size statue of King on the city square and renamed their municipal ensemble the "Karl L. King Municipal Band." King stands as one of the most prolific composers in wind band history, owning over 290 works including 185 marches, 22 overtures, 12 galops, 29 waltzes, and works of various other styles, abounding at all levels of musical development. *The American Way* is just one of many examples from King's repertoire where memorable melody and form unite to create a well-crafted march from one of the masters of its genre.

<sup>133</sup> Karl King, *The American Way* (Oskaloosa, IA: C.L. Barnhouse, 2014), 2.

#### LECTURE RECITAL

# Campbellsville Univeristy, Gosser Fine Arts Center Gheens Recital Hall Tuesday, January 29<sup>th</sup>, 2019

Kleine Dreigroschenmusik – by Bertolt Brecht and Kurt Weill

#### **WELCOME**

Good evening, ladies and gentlemen and thank you for coming to be a part of tonight's event. As we journey together for the next hour, my hope is that you walk away more acquainted with a generally "overlooked" composer of the early 20<sup>th</sup> century, and discover a greater need to be more informed as an arts consumer, as our understanding of any art form greatly depends on the social and political atmosphere in which that art was created.

#### **INTRODUCTION**

Die Dreigroschenoper – the operetta that changed all opera....and propelled all musicals.

Herbert Jhering, one of the most highly esteemed music critics of the Weimar Republic, printed this the day following the opera's premiere in 1928: "It represents the breakthrough into the public sphere of a type of theatre that is not oriented toward chic society...because the tone has been found that neither opposes nor negates morality, which does not attack norms at the end, is neither parodic nor serious. Rather, it proclaims a different world in which the barriers between tragedy and humour have been erased. It is the triumph of open form."

As for tonight we will not see or hear the opera in its original form, but we will explore the importance of the opera and its forward projection in musical context to its chamber music transcription, *Kleine Dreigroschenmusik*.

Many times our experience of art depends on a sufficient yet succinct method of delivery – thus one of the primary purposes of the structure of this work. *Little Threepenny Music* is the composer's own transcription. After a few modifications to instrumentation and deciding which "songs" to include, the wind band is afforded the opportunity to become acquainted with the voice of Kurt Weill.

#### BIOGRAPHICAL AND SOCIAL HISTORY OF KURT WEILL

Kurt Weill is one of the most intriguing German musical figures from the decade following World War One – a decade where the old monarch had collapsed and the Weimar Republic had been established. A departure from "the old ways" of social and artistic interaction was voraciously ushered into cultural centers the likes of Frankfurt, Baden-Baden, and to a much higher extent, Berlin – the city that would eventually rival Paris as an epicenter of avant-garde artistic activity. Weill's childhood was concentrated in a thorough music education, as his father, a cantor in the Jewish community of Dessau, acknowledged a tremendous amount of youthful talent. These talents were affirmed in Weill's lineage of education, having studied with both Engelbert Humperdinck and Ferruccio Busoni, who is known by many to be one of the leading figures in developing the concept of *neoclassicism*. Busoni would have a tremendous impact on Weill's early musical output. His early composition style, such as that found in his Symphony No. 1 boasted echoes of Mahler and Strauss and the high German sophistication of expression. However, after some time with Busoni, Weill produced a more tightly-knit, reserved style in a Concerto for Violin and Winds written in 1924. This work also appeared on the musical scene like one of a set of triplets—the other two in the set being Igor Stravinsky's Concerto for Piano and Winds and Alban Berg's Concerto for Violin, Piano, and 13 Wind Instruments, each piece boasting a neoclassical style, with a

freshness of sound, yet familiar and non-complex when compared to Schoenberg's twelve tone serialism technique, which had been lurking in the shadows of musical complexity for a few years at that point.

In addition to his compositional growth, Weill was also gaining much experience within his work at a number of opera houses in and around his hometown. In his time with Busoni, Weill was heavily influenced in being more economical with his compositional tools, being more direct in his statement, and using a crystallized clarity in his texture. These most basic tenants of Weill's music came at a time when most all of Germany had bathed (actually nearly drown) in the proverbial kool-aid of Richard Wagner, where economy of means, directness, and clarity were the last concerns of the *musical dramas* that adorned the operatic stage. These same German audiences were looking for change – perhaps some, in all the wrong places, but change nonetheless. That change is marked in Weill's music through his panache for the theater, where he sought to deepen his connection to the song and the songs connection to the audience. It was the song that reveals a "different direction" for Weill – a direction marked by those distinctive characteristics of economical use, direct musical statements, and clarity of texture.

These traits along with Weill's troubled heart over the moral cynicism and the sharp downward economic spiral endured by the citizens of the young and brief Weimar Republic, nearly forced Weill's hand to pursue music as an agent for social change. Much like his German counterpart Paul Hindemith, Weill became consistent with what was known as the *Gebraushmusick* movement, which literally means "music for use". Hindemith "used" his music in a function of performance, inspiring amateur musicians with his many solo instrumental sonatas. Weill "used" his music to seek a complete

resurrection of what he called the "socially creative power of art". He attempted to bring political awareness to the surface of discussion inside and outside the city's opera houses. He sought to change the personae of opera from what he saw as a "socially exclusive art" into a "community-forming or community-advancing" one. The final step in Weill's recipe for social (and musical) transformation was his association with the communist poet and playwright Bertolt Brecht, which energized the undercurrents of Weill's ideology in such a way that would solidify his place in music history.

A roaring twenties German version of the earlier opera team known as Gilbert and Sullivan, the Brecht-Weill partnership made its debut in 1926 with a work titled Moha*ganny-Songspiel*, where Weill applied the *Mahoganny* poems of Brecht to a quite dissonant yet brilliant musical setting. Audiences found the content both "standoffish" and remarkable – it was disturbing, yet they couldn't look away. The use of popular music, jazz, dance bands, and cabaret style was certainly one way to cause a stir. The second collaboration expanded the audience fascination even further, gave further removal from the expressive German romantic sentiment, and struck a chord of greater dissonance with *Die Dreigroschenoper* in1928.

We know it as *The Threepenny Opera*. It was written, quite frankly for actors who could also sing rather than opera singers who could act. Historians describe the assembly as "the weightiest possible lowbrow opera for highbrows and the most full-blooded highbrow musical for low brows, [where] the symbols of nineteenth century operetta were replaced by the sights and sounds of modern big-city life, projected through a whole new set of images and characters, who were both products of the system and in revolt

against it. <sup>134</sup> Felix Salten described the music in his critique of the Viennese premier in 1929 published on March 10 in the *Neue Freie Presse*: "the young Weill's music is as Characteristic as Brecht's language, as electrifying in its rhythm as the lines of the poems, as deliberately and triumphantly trivial and full of allusions as the popularizing rhymes, as witty as the jazz treatment of the instruments, as contemporary, high-spirited and full of mood and aggression, as the text."

## **History Repeats Itself**

It is a well-known fact that Weill's *Threepenny Opera* is a modern twist on John Gay's *Beggar's Opera*. In an effort to further expand the reach of audience, Weill advanced the story a little more than a century, but kept the same villainous characters. John Gay's 1728 *Beggar's Opera* almost immediately and completely disenfranchised the Italian opera seria. George Friderich Handel's opera reigned supreme in London – at least until Gay's *Beggar's Opera* drained the pockets of Handel. Audiences fell in love with the idea of the "attainable entertainment" that it offered. Handel retreated to the oratorio, writing works such as *Solomon, Judas Maccabeus, Saul,* and *The Messiah*. What a mistake that turned out to be, right?

Fast forward 200 years to 1928, into the era where the *Zeitoper* was sweeping the German stage. A *Zeitoper* was a type of German opera included staging of both modern technology (airplanes, telephones, elevators, and trains) and modern music of the popular

<sup>134</sup> Joseph Machlis, *Introduction to Contemporary Music* (New York: Norton, 1974), 302.

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idiom, particularly jazz. But Weill, sought for even further change than what the Zeitoper boasted. He wanted to see "popular musical theater and opera merging in a theater of social consciousness." Rather than a mere slogan, Weill and Brecht wanted to incite a complete change, a call-to-action toward the demoralizing Weimar Republic, which quickly became the governing body that appeared with shouts of promise, but only stumbled around the decade of the 1920s on its own empty pockets. It is here where one found Kurt Weill and Bertolt Brecht reinventing the theater and opera into a unified rejection of two things: 1 - the former German romantic sentiment of Wagner and Strauss and -2- the modern musical views of Schoenberg and his TWELVE-tone disciples. The dynamic duo of Brecht and Weill demanded that personal expression, vocal virtuosity, orchestral tone painting, and illusionistic scenery, be purged from the process. In other words, they tried to simplify and give clarity to the meaning of moment on stage.

#### Let's take a very brief look at the story of the opera:

Picture it: Soho, London 1837 – days leading up to the Coronation of Queen Victoria.

We begin with an introduction to Macheath, a.k.a. Mac the Knife, crook, criminal, bandit.

He "marries" Polly Peachum, whose parents run a ring of "beggars" around the city.

They are not happy about the "marriage". So they tell the Police Chief "Tiger" Brown, but he goes way back with Macheath, and even though Mac has been arrested several times, he always gets released.

Before he gets out of the slammer, though, Mac is visited not only by Polly, but also by his other best girl, Lucy. She fools him into believing she's pregnant, which could be a

problem because her father is none other than Police Chief "Tiger" Brown himself. The girls squabble over Mac's heart but it goes nowhere, really, because as soon as he escapes he's betrayed, imprisoned and sent to be hanged.

But right at the last minute, a royal official rides in with a pardon from the queen. He's also got a huge paycheck for Mac from the crown, just for kicks. Everyone else is still poor, and the bad guys have triumphed.

The Message of the play, which Weill's music underscores, is that villainy must be eradicated humanely, not by zealous, self-righteous punishment but by attacking its root cause: POVERTY.

On August 31, 1928, *Die Dreigroschenoper* unfolded before the eyes of its audience in the Theater am Schiffbauerdamm in Berlin. The original pit orchestra was made up of seven musicians, whose backgrounds were mostly from the cabaret performance scene. Many of them played multiple instruments—a total of 23 instruments in total were used. This cabaret style was very much the sensation of the 1920's, particularly in Germany where topics for musical discussion were generally "taboo" in normal conversation (murder, suicide, corruption, discrimination), most of which would bring awkward and pain-invoking thought for its audience. Because this opening night was presented before a mostly empty house, the director of the company thought the show might close after the first night, perhaps even DURING the first night. Of those actually in attendance, most were prepared less for a "sure-fire sensation" than for a "sure-fire flop." So much so, that, no one would have predicted what would take shape during the show. Nonetheless, I refer to the earlier statement: It was disturbing, yet they couldn't look away. A "realness" where the proverbial 4<sup>th</sup> wall of the theater (that "great divide" between what

seems real and what you know is actual "reality") had been crumbled. The audience could truly connect to the action on stage. Weill was married to Lotty Lenya, whom he chose for the lead female role in the opera's opening night. She also led a revival of the work to the tune of over two thousand Broadway performances in the mid-1950s. Lenya recalls the opening night like this: (from the foreword from a 1949 collection, *The Works of Bertolt Brecht*)

...There have been many accounts written of that opening night of Dreigroschen; it has so truly entered the realm of the fabulous that I shall be brief. Up to the stable scene the audience seemed cold and apathetic, as though convinced in advance that it had come to a certain flop. Then after the kanonen [Cannon] song, an unbelievable roar went up, and from that point it was wonderfully, intoxicatingly clear that the public was with us... [By the next day, all of]Berlin was swept by a Dreigroschenoper fever. In the streets no other tunes were whistled. A Dreigroschenoper bar opened, where no other music was played. Immediately the ""Brecht style"" and the ""Weill style"" were slavishly imitated by other dramatists and composers... 135

Needless to say, the opera became a resounding success. Within 5 years, it was translated into eleven languages, and performed over ten thousand times across Germany and central Europe. The conductor at the Kroll opera house in Berlin, Otto Klemperer, sought immediately to have Weill rescore it for chamber winds. Klemperer recognized the genius of the original work, and Weill began creating *Little Threepenny Music* suite, the work that you will hear tonight. Its premiere came on February 7<sup>th</sup>, 1929 in Berlin, under the conducting leadership of the previously mentioned Otto Klemperer. The work

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<sup>&</sup>lt;sup>135</sup> Lotty Lenya, "Foreword" *The Threepenny Opera*, by Bertolt Brecht (New York: Grove Press, 1960), xiv.

itself leans on the influence of jazz and the tradition of re-scoring operas, a practice as old as opera itself. This practice served as a way for music of the opera stage to be performed in rural communities and urban areas outside the great opera houses.

Additionally, here we are reminded of one of the greatest reasons for the creation of the 18<sup>th</sup> century *Harmoniemusick*, in providing and preserving music for aristocracy in a compact and economical way — where courts could not feasibly retain entire orchestras as regular service musicians, they did have the capacity to maintain the roster of a *Harmoniemusick* ensemble — pairs of oboes, clarinets, horns, and bassoons. A couple of 18<sup>th</sup> and 19<sup>th</sup> Century opera examples of this transcription for chamber winds include a few names you may be familiar with:

- 1-Mozart's *Magic Flute*, premiered in 1791, with its *Harmoniemusick* arrangement by Joseph Heidenreich in 1792.
- 2-Beethoven's *Fidelio*, premiered in 1805, with its *Harmoniemusick* arrangement by Wenzl Sedlak in 1814.

Other names one would discover upon further examination would include Louis Spohr, Carl Maria von Weber, and Gioachino Rossini.

19th Century *Harmoniemusick* ensembles would typically have been expanded to embrace the flute or trumpet and additional bass line reinforcement, by way of either an additional contrabassoon or trombone. Weill extended the tradition, yet, even further, continuing to embrace more of the current vernacular language. He made a few conscious instrumentation and stylistic decisions that spelled J-A-Z-Z in the "early 20<sup>th</sup> century sense", to keep in step with the times. The use of saxophones instead of oboes

and trumpets in place of horns immediately resonates a jazz idiom. The sounds and rhythms of a dance band permeate the score as well. Harmonies and Melodies that seem centric to the 6<sup>th</sup> scale degree give a resemblance of the added tonal properties of the jazz and popular music vein. Yet his bold and striking use of dissonance within the context of his otherwise charming harmonic structures seem to set his work apart from most all of his contemporaries.

Many before have tried to pigeonhole Weill's musical output in the vein of *neoclassicism*, understandably so with his training background with Busoni and the evidence of classical (and sometimes late baroque) compositional techniques. However, I think it provides a clearer lens to see Weill for all the parts that made the whole – he used a highly varied vocabulary – and we must peel the onion one layer at a time. Let's take a listen to some specific examples of this *Dreigroschenoper* spirit Weill achieved and kept alive through his own chamber winds spin-off, which this ensemble has prepared for you tonight.

## ■ GO TO ANALYSIS PACKET

With the importance of the "song" in the work, I felt it important to consider the melody quite thoroughly in discovering Weill's personal style. The search returned many times over a simplistic approach to the melodic material in the work. For starters, let's hear a sample from act two in the opera, found in the suite in the 5<sup>th</sup> movement, Polly's Lied, where Polly tells Mack that her father will have him arrested; Mac responds by leaving London, and leaving Polly to manage his "bandit business"...this melody is very lyrical, diatonic, and of modest range of about one octave.

#### 1. PLAY - Movement 5 - m. 17 - 35

This next example comes Police Chief Brown arrives and apologetically arrests Mack, who goes to jail. He bribes the guard to remove his handcuffs. Still diatonic, but a more aggressive and quick moving rhythmic motif is involved in this melody. You should also notice the last two notes of each melodic phrase finishes with movement to the 6<sup>th</sup> scale degree, also echoed in the trumpet, a melodic and harmonic relationship that resonates through the entire opera.

#### 2. PLAY Movement 4 - pick up to m. 5 - m. 12, beat 3

Tango Ballad in this suite comes in stark contrast to Polly's Song. Its place in the opera occurs while Mack has made his way to reconnect with Jenny in the "red light district" – here, the simplicity of the melody comes once again with a diatonic passage, based in E minor, utilizing a more lively syncopation, but a contour that, in this excerpt, meets basic expectation of descent to the tonic.

#### 3. PLAY Movement 5a – Beginning to downbeat of m. 10

One of the ways Weill creates melody in constant fluctuation is by rarely repeating without providing some sort of quite noticeable variance. These variances come in many

forms (rhythmic ostinato, juxtaposed counter-melody, modulation, or added dissonance).... In this example, you will hear how the change of a single pitch at the end of a melodic phrase catches your "expectation" by surprise, and that you become redirected on a new path...a sort of melodic tension -

#### 4. Movement 5a – pick up to m. 31 – downbeat of m. 39

He also uses a compositional technique called "elision" where he simply doesn't complete the phrase at all, but rather, in reflecting the stage action of dialogue, the melody gets interrupted before it can finish. Gentlemen, do not try this at home with your wives, but it does make for a element of musical "surprise" – yet another example of melodic tension created with small changes in the pitch contour...

#### 5. Movement 5a – beat 2, m. 66 – downbeat of m. 76

One must remember that one of main objectives of Brecht and Weill was to "enlighten" and bring dark issues to the light of acknowledgment...his juxtaposition of "good and evil" are one of the most basic ways he communicates musically.

Eric Salzman says it this way: "The music is full of paradoxes – It has a low-life side: bitter, ironic, intentionally awkward, and even brutal in its rhythmic and instrumental style." <sup>136</sup>

<sup>&</sup>lt;sup>136</sup> Salzman. Twentieth Century Music, 103

Weill himself says it like this: "The Charm of the piece rests precisely in the fact that a rather risqué text is set to music in a gentle, pleasant way."

I'll let your ears be the judge – listen to the words that introduce the scandalous murderer "Mack the Knife" immediately following the overture:

And the shark, he has teeth
And he wears them in his face
And MacHeath, he has a knife
But the knife you don't see
On a beautiful blue Sunday
Lies a dead man on the Strand\*
And a man goes around the corner
Whom they call Mack the Knife

And Schmul Meier is missing
And many a rich man
And his money has Mack the Knife,
On whom they can't pin anything.

Jenny Towler was found
With a knife in her chest
And on the wharf walks Mack the Knife,
Who knows nothing about all this.

And the minor-aged widow, Whose name everyone knows, Woke up and was violated Mack, what was your price?

And some are in the darkness
And the others in the light
But you only see those in the light
Those in the darkness you don't see

But you only see those in the light Those in the darkness you don't see

Now Listen to the melodic nature of the music Weill chose to incorporate...it's probably not what one would expect based on the text of the song...

#### 6. Movement 2 – pick up to measure 17 – downbeat of m. 32

Another paradoxical section is found in the finale – It begins when Mack is about to be hanged and is singing bitterly of the injustice of his impending death. Much of the rest of the movement comes from the "Ballad in which Macheath begs all men for forgiveness". The Chorale at the end comes after Mack has been (absurdly) pardoned by the queen and given a pension. Brecht is making his political statement on the free reign

that "evil" was having on society – the harmony and texture of the music collide to create a twistedly majestic language...where the regal pomp of the score brings attention to the negative outcomes of poverty.

### 7. PLAY Finale m. 92 "choral section" – downbeat of m. 104

One of the most resounding compositional techniques from the classical period was the development of motivic themes. From Beethoven we hear a four-note motive become the basis for the entire 5<sup>th</sup> Symphony. For Mozart, particularly his later works, the motive also became important, with Symphony No. 40 ordaining a 3 note cell as its musical seed.

The Kanonen Song does just this type of motivic treatment, using small motivic themes throughout. Let's hear the opening gesture that sets the stage for this motivic treatment

#### 8. Movement 6 – Beginning to downbeat m. 7

Here, this same motive from the beginning of the movement is echoed as counter material, and it builds a tremendous amount of tension as the statements become more frequently repeated, until a full-on bombastic statement erupts as the ensemble pushes to climax of the movement—this all occurs over a highly dissonant and chromatic bass line, creating much harmonic tension in addition to the motivic tension.

#### 9. Movement 6 - m. 58 to m. 85

#### 3-pitch / 3 note ideas

Additional motivic style in Weill's work come in 3-note ideas, which occur on multiple levels of the musical language – here is a reminder of the 3 note gesture in terms of "melody" from the second movement of the suite, where he couples the ballad of Mac the

Knife with another song from the opera, calling our attention to the importance of the 3 note "e-g-a" motif. This complimentary melody is built of 3- and 4-note ideas, the first of which is the retrograde of the 3-note Mac motif, a-g-e (setting aside the pick-up notes, of course, for this point of analysis) -

- i. Mackie Messer Trombone Melody (mvmt 2, m. 17-23)
- ii. Trumpet Melody, pick ups to m. 41 to downbeat of m. 42

Weill also appoints a simple 3-note idea that serves as a rhythmic ostinato in the finale...

iii. Drum opening to Finale (m. 1-4)

And finally, hear the flute recall the chromatic climb from just a moment ago in the canon song

iv. motivic tension a moment ago Mvt 6 (flute, m. 80 – 83)

Another fluently used gesture for Weill comes in the 2-note sharp rhythmic gesture that he uses as an "echo" at the ends of phrases. As a matter of fact his musical instruction reads "Scharf Schlagen", which translates "sharply beaten", perhaps politically using those two notes as a reminder of the weight and cruelty of poverty on the ordinary citizens of under the Weimar Republic.

10. PLAY 2-note figure (political satire) – Movement 3 – m. 36 – m. 42, beat 2

## **Rhythm**

Weill's use of popular Dance Rhythms also helps create his eclectic musical style. The use of the Tango brings a sensual jazz sound to the palette of his orchestration. Use of

the accordion is most native to the Argentine Tango, and the use of the crisp syncopated rhythm allows the lyrics and melody to be simplistically dominant in the musical texture. Here is a brief excerpt from the Weill's prominent tango rhythm.

## 11. PLAY Movement 5a – Tango (Accompaniment only) – Beg to m. 10

Evidence of other jazz influences, such as ragged, uneven shuffling rhythms, are present in the Foxtrot sounds within the fourth movement. Weill's score brings a musical sound representative of the shuffling rhythmic pattern that would quickly propel the dancers feet across the floor. The foxtrot was the most popular dance during the 1920s and 1930s. Yet another inclusion of the vernacular social language that Weill included into his opera score.

### 12. Movement 4 – pick up to m. 53 – downbeat of 57 - Tpt, Snare, pno, banjo

Harmonically, this work has some of the sweetest, most lush sounds available from the orchestration; but in the blink of an eye, you may experience a jolting acidic harmony; others have described it as vulgar and bitter. Regardless of how you describe the sound, the craftiness with which he disguises his harmonic ideas does boost his compositional credibility – further evidence is in his longevity of influence for years to come.

We've mentioned it earlier tonight, but there is a true harmonic motif of an added 6<sup>th</sup> scale degree thrust over the entire opera, representing Weill's love for the here and now, the vernacular language of jazz – after all, all the cool kids played it... His ability to give this harmony clear direct statement on one hand, and then disguise it completely on the other hand put him in a league all his own. Listen to Mr. Amburgey play the most basic

chords in the finale that use this added 6th. What you will hear are simple major triads with an added 6<sup>th</sup> scale degree, sometimes differing in inversion, but same harmonic notion nonetheless (JORDAN PLAYS)

But he gives a hazy illusion to the simple harmonic sound with a descending chromatic line that provides the vulgarity to the overall harmonic context. Listen as Mr. Birdsong plays that descending chromatic line (LARRY PLAY)

Now hear the combined harmonic sound of the ensemble; consider the difficulty of hearing Weill's use of the sixth. Hear it is quite complex; other places it is fairly simple to peel away, in both cases, there is obvious dependence on the jazz influence of the day with the added sixth chord.

#### **FUTURE IMPLICATIONS**

Unfortunately, for the future of Weill's own legacy within Germany, much of his progress was completely destroyed by the Hitlerites and the political right. As quickly as Weill found his fame, it trickled between his fingers--From artistic and social revoluationary to an overnight prisoner of treason, the victory of the National Socialist Party in 1933 caused an immediate artistic overhaul. The anti-intellectual and anti-artistic attitudes of the national Socialists, along with their brutal suppression of the Jewish people, had a profound and fatal impact upon German cultural life. Fortunately for Weill, he along with many other composers, Schoenberg and Hindemith to name a few, sought refuge in other countries, many making stops in the open arms of Paris en route to America, where they would each continue to expand and make a new compositional life for themselves. Many of the great American stage works of the

1940s and 1950s owe much to the influence of Kurt Weill. Names such as Stephen Sondheim and Leonard Bernstein could contribute their use of narrative and musical continuity to its genesis in *Street Scene*, Weill's 1946 American Musical Theatre production. But the furthest cast of influence and longevity possibly belongs to that of the simple song Ballad of Mack the Knife, which has snuck its way onto record labels of numerous renowned jazz musicians, such as Louis Armstrong, Ella Fitzgerald, Frank Sinatra, and currently Michael Bublé. The piece has become what we know in the jazz world as a "standard" to many. Let's hear how Louis Armstrong and Michael Bublé treat the song in their more heavily influenced jazz idiom:

### PLAY THE VIDEOS OF ARMSTRONG AND BUBLÉ.

In conclusion, you may ask yourself "Why Kurt Weill? Why this piece?"

I find it somewhat our responsibility as musicians to continue to further explore all sorts of music through experience. Liking a piece isn't necessarily what we owe our musical past, but rather discovering new composers, new surroundings, and creating a moment in "musical time". Pieces like this challenge us musically and socially and due to the strange instrumentation and unique musical style receive very few performances. In fact, during Weill's lifetime, the suite received very few performances. We nearly lost the opportunity to even have *Kleine Dreigroschenmusik* in our repertoire of chamber music at all, if not for one man, Frank Battisti, who fulfilled his responsibility in expanding his musical horizons. He writes a brief account: "[I] recall contacting the publisher of this work, Theodore Presser, in 1973 to request the score and parts for *Little Threepenny Music*. I was informed by the publisher that the piece was not in their catalog. However,

after a search, they discovered the materials. The piece had evidently" disappeared" due to the total absence of requests for the "non-published but available on rental" score and parts. As conductors gradually discovered the piece, the number of performances grew and soon the score and parts were published. And we finish our time together tonight by adding another notch in the belt of performances for Kurt Weill's *Little Threepenny Music*, the suite from his own *Threepenny Opera*.

As we prepare to play the work to close the recital. I'd like to offer a word of thanks to this fantastic ensemble seated before you. They have worked several hours to prepare this work, and I am grateful to call them friends, family, colleagues, students, and alumni of Campbellsville University. To all our faculty, staff, and students that have worked behind the scenes to make tonight possible: Thank you as well.

And final word of thanks to my wife, for bearing with me through this process.

Thank you for coming – we hope you enjoy Kurt Weill's Little Threepenny Music.

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#### **VITA**

# **COREY S. BONDS**

Assistant Director of Bands, Assistant Professor of Music Campbellsville University

# **EDUCATION**

2007	Master of Music in Music Education (Emphasis in Trumpet), Campbellsville University—Campbellsville, KY (4.0 GPA)
2005	Bachelor of Music in Music Education (Instrumental Emphasis in Piano), Campbellsville University—Campbellsville, KY (4.0 GPA)

# **TEACHING EXPERIENCES**

2014-present	Assistant Professor of Music /Assistant Director of Bands,
	Campbellsville University, Campbellsville KY
2007-2014	Director of Bands, Glasgow Independent Schools, Glasgow KY
2006-2007	Associate Director of Bands and Elementary Music Teacher,
	Allen County-Scottsville High School, Scottsville KY
2005-2006	Graduate Assistantship, Assistant Director with Bands,
	Campbellsville University, Campbellsville KY

## PERFORMING EXPERIENCES

2016	Lake Cumberland Honors Band Conductor/Clinician
2005	Soloist (Piano) Campbellsville University Concert Band

# HONORS AND AWARDS

2018	Selected Participant at the University of Kansas City-Missouri Symposium
2014	Guest Speaker for Bands of America / Music for All Fall Retreat
2013	Glasgow-Barren County Chamber of Commerce "Ernie Award" for Leadership
2013	National Band Association Merit for Marching Excellence
2012	3 <sup>rd</sup> District Music Educators Association High School Teacher of the Year Award
2005	Outstanding Senior Music Student, Campbellsville University
2005	Alumni Association Outstanding Senior Award, Campbellsville University
2005	William K. Pennebaker P-12 Education Award, Campbellsville University