Spaces in Between: A Swing-Informed Approach to Performing Jazz- and Blues-Influenced Western Art Music for Violin

by

Sang Kyun Koh

A thesis submitted in conformity with the requirements for the degree of Doctor of Musical Arts
Department of Music
University of Toronto

© Copyright by Sang Kyun Koh 2017
Spaces in Between: A Swing-Informed Approach to Performing Jazz- and Blues-Influenced Western Art Music for Violin

Sang Kyun Koh

Doctor of Musical Arts
Department of Music
University of Toronto
2017

Abstract

This dissertation explores issues related to performing art music for the violin that references jazz and blues. Because western notation cannot convey many subtleties of rhythm, typical scores provide imprecise instructions for creating swing, which is for many a defining feature of jazz and the blues. Moreover, since swing is not one sound or rhythmic sense, scores convey little about how a composer understands it. My aim is to help performers better realize a composer’s conceptualization of swing.

Following an overview of scholarship on swing, I analyze the “Blues” movement from Ravel’s Violin Sonata No.2, Copland’s Nocturne and Ukulele Serenade, and the “Socrates: Alcibiades” movement from Bernstein’s Serenade after Plato’s “Symposium.” To understand how each composer conceptualized and notated swing, I explore jazz and blues recordings that are representative of their respective time periods.

My analysis of each composer’s notion and notation of swing is supplemented by interviews with expert jazz musicians, who assessed several recorded versions of the pieces. Their comments helped me pinpoint and analyze key factors that contributed to their preferences.
Although certain subtle processes emerged as fundamental to a swing-informed approach, it became clear that a strict “how-to” guide to performing swing was problematic. I also found that less rhythmic alteration can actually be the best strategy for creating swing.

To further explore how classically trained violinists can convey swing, I explore five playing techniques. They are not far removed from accepted classical methods and do not require radical reworking of playing mechanics or the music. However, as I argue, they do clarify jazz violin practices and provide possibilities for expressing swing’s sensibilities.

While the swing-informed approach provided is a general guideline to performing swing-influenced pieces for violin, it is my hope that the methodology will be a blueprint for performers of any instrument who wish to make informed choices that facilitate the realization of composers’ “high-level” intentions.
Acknowledgments

The following people made the writing of this dissertation possible:

Evan Price, David Balakrishnan, Matthew Glaser, and Andrew Downing:

Thank you for participating in my research and for sharing your knowledge and experiences. Your thoughts and words were invaluable in navigating the elusive concepts discussed herein.

Dr. Jeff Packman:

Thank you for showing me that with care, patience, and perseverance, a bad idea can be made good. Your continuous support, words of advice, and meticulous editing were crucial in the writing process, and I am truly lucky to have had you as my Supervisor.

Dr. Ryan McClelland:

Thank you for joining my committee and helping me to refine my writing, research strategies, and organizational skills. Your succinct suggestions were immensely helpful in clarifying my thoughts and in helping me develop into a more analytical and methodical writer and musician.

Dr. Tim Ying:

Thank you for being a member of my dissertation committee and for showing me that deep thinking takes commitment, patience, and persistence. Your emphasis on quality pushed me to become a better scholar, performer, and thinker, and I am extremely grateful for your honesty throughout this entire process.
Amy Seulky Lee:

Thank you for your unwavering support and for being the light at the darkest of times. Your patience, infectious laugh, and love helped me to become a better person. I am so grateful for your companionship and kindness.

My Family:

Thank you for everything. Without your unconditional support and love, this dissertation would certainly not have been possible. To Mom, Dad, Brother, Hyung-Soo Neem, Caleb, and Yuna, I dedicate this dissertation.
# Table of Contents

Abstract ........................................................................................................................................... ii

Acknowledgments ................................................................................................................................. iv

Table of Contents ................................................................................................................................. v

List of Sound Clips ............................................................................................................................... vii

List of Video Clips ............................................................................................................................... xi

List of Figures ....................................................................................................................................... xii

List of Appendices .............................................................................................................................. xvii

Introduction .......................................................................................................................................... 1

First Steps toward a Definition of “Swing” and “Swing-Informed”: Jazz and the Concept of “Swing”
in the 1910s ......................................................................................................................................... 4

Methodology: Secondary and Primary Source Literature ..................................................................... 8

Sound Recording Analyses .................................................................................................................... 9

Interviews with Elite Jazz Performers .................................................................................................. 10

Video Recording Analysis .................................................................................................................... 11

Structure of the Dissertation ................................................................................................................ 11

Significance for Future Musicians ......................................................................................................... 13

Chapter 1 What is Swing? ................................................................................................................... 15

Theorizing Swing .................................................................................................................................. 15

Syntactical Analytical Method in Discussing Swing .......................................................................... 16

Processual Analytical Method in Discussing Swing ............................................................................ 17

Empirical Analytical Method in Discussing Swing ............................................................................ 18

Returning to Hodeir .............................................................................................................................. 19

Phrase Rhythms in Hodeir’s Formulation ............................................................................................ 24

Process vs Syntax .................................................................................................................................. 27

Hodeir’s Third Ingredient: Getting Notes and Accents in the Right Place ......................................... 29
Chapter 2 Towards Understanding Ravel’s, Copland’s, and Bernstein’s Conceptualizations of Swing

Influence of Early Jazz and Bebop on Composers of the 20th Century and after ........................................... 42
Sound Recordings ............................................................................................................................................... 44
Selection of Sound Recordings ...................................................................................................................... 46
Maurice Ravel (1875-1937) ............................................................................................................................ 47
Ravel’s potential swing influences: Smith, Mitchell, and Europe ................................................................. 48
Aaron Copland (1900-1990) ........................................................................................................................ 55
Examples of “Molecule of Jazz” ...................................................................................................................... 58
Sorting Out the Contradictions ....................................................................................................................... 60
Leonard Bernstein (1918-1990) ..................................................................................................................... 62
Bernstein’s Potential Jazz Influences: Armstrong, Hawkins, and Gillespie .................................................. 65
Conclusion ......................................................................................................................................................... 71

Chapter 3 Notations of Swing by Western Art Music Composers ................................................................. 72
Ravel’s “Manipulation” of Jazz ...................................................................................................................... 72
Ravel’s “Minute Stylization” of Jazz .............................................................................................................. 74
Copland’s “Molecule of Jazz” in the Nocturne ............................................................................................. 78
Copland’s “Molecule of Jazz” in his Ukulele Serenade .................................................................................... 80
Suggestions of Swing in Bernstein’s Notation ............................................................................................... 84
Prelude, Fugue, and Riffs ................................................................................................................................. 85
Analysis of Serenade after Plato’s “Symposium” .......................................................................................... 88
Conclusion ......................................................................................................................................................... 94

Chapter 4 Steps Towards Developing a Swing-informed Approach ............................................................. 96
Methodology .................................................................................................................................................... 96
Discussions of Ravel Performances ............................................................................................................. 98
Demonstrations of “Sound’s Equilibrium” .................................................................................................. 102
Discussion of Copland’s Nocturne ................................................................. 107
Rhythmic Accuracy ......................................................................................... 108
Conveyance of “Internal Timing” ................................................................. 111
Maintenance of Pulse .................................................................................... 114
Discussions of Copland’s ‘Ukulele Serenade’ ............................................. 116
Rhythmic Accuracy and Maintenance of Pulse .......................................... 117
Equilibrium of “Horizontality” and “Verticality” ......................................... 119
Stylistic Similarities ....................................................................................... 122
Discussions of Bernstein’s Serenade, “Socrates: Alcibiades” movement .... 124
Rhythmic Accuracy: Maintenance of External Timing and Conveyance of Internal Timing ............................................................ 125
Equilibrium of Sound’s “Verticality” and “Horizontality” ......................... 128
Conclusion ...................................................................................................... 130

Chapter 5 Techniques for Swing-Informed Violin Playing .......................... 134
Accessing a Different Sound World: Sonic Emulation of Horns ................ 136
Technical Attribute #1: The Predominant Use of Short Bows in the Upper Half .......................... 137
Technical Attribute #2: Frequent Use of Slurs ........................................... 138
Technical Attribute #3: Greater Use of Up Bows and Bow Speed as means for Articulation ........ 141
Technical Attribute #4: Greater Degree of Wrist Pronation and Use of Fingers ............... 142
Technical Attribute #5: Vibrato .................................................................. 143
Conclusion ...................................................................................................... 144

Chapter 6 Conclusion .................................................................................... 146
Implications of this Dissertation ................................................................ 148

Bibliography ................................................................................................. 151

Appendix #1a: David Balakrishnan ............................................................. 156
Appendix #1b: Andrew Downing ................................................................. 158
Appendix #1c: Evan Price ........................................................................... 158
Appendix #2: Interview Methodology and Questionnaire ......................... 162
Appendix #3: Selected Discography ............................................................. 163
Appendix #4: Informed Consent Form .......................................................... 164
Copyright Acknowledgements

165
List of Sound Clips

Sound Clip #1: Bessie Smith: *Downhearted Blues* (1923), 0:15 – 0:21
Sound Clip #2: Bessie Smith: *Downhearted Blues* (1923), 0:29 – 0:36
Sound Clip #3: James Reese Europe and the Hellfighters: *St.Louis Blues* (1919), 1:30 – 1:50
Sound Clip #4: James Reese Europe and the Hellfighters: *St.Louis Blues* (1919), 2:38 – 2:43
Sound Clip #5: Louis Mitchell and Jazz Kings: *Ain’t We Got Fun* (1921), 0:22 – 0:43
Sound Clip #6: Louis Mitchell and Jazz Kings: *Ain’t We Got Fun* (1921), 1:01 – 1:11
Sound Clip #7: Louis Mitchell and Jazz Kings: *Ain’t We Got Fun* (1921), 2:41 – 2:51
Sound Clip #8: Louis Mitchell and Jazz Kings: *J’en ai marre* (1921), 1:46 – 1:49
Sound Clip #9: Louis Mitchell and Jazz Kings: *Ain’t We Got Fun* (1921), 0:33 – 0:36
Sound Clip #10: Louis Mitchell and Jazz Kings: *Ain’t We Got Fun* (1921), 1:53 – 1:57
Sound Clip #11: Zez Confrey: *Stumbling* (1922), 0:33 – 0:41
Sound Clip #12: George Gershwin: *Fascinating Rhythm* (1924), 0:37 – 0:41
Sound Clip #13: Louis Armstrong: *West End Blues* (1929), 0:00 – 0:15
Sound Clip #14: Louis Armstrong: *West End Blues* (1929), 0:15 – 0:51
Sound Clip #16: Coleman Hawkins: *Body and Soul* (1939), 0:00 – 0:16
Sound Clip #17: Dizzy Gillespie: *A Night in Tunisia* (1945), 1:14 – 2:52
Sound Clip #18: Dizzy Gillespie: *A Night in Tunisia* (1945), 5:47 – 5:54
Sound Clip #19: Maurice Ravel: Violin Sonata No.2, II. “Blues,” mm. 1 – 11 (I)*
Sound Clip #20: Maurice Ravel: Violin Sonata No.2, II. “Blues,” mm. 1 – 11 (II)
Sound Clip #21: Maurice Ravel: Violin Sonata No.2, II. “Blues,” mm. 1 – 11 (III)
Sound Clip #22: Maurice Ravel: Violin Sonata No.2, II. “Blues,” mm. 12 – 26 (I)*
Sound Clip #23: Maurice Ravel: Violin Sonata No.2, II. “Blues,” mm. 12 – 26 (II)
Sound Clip #24: Maurice Ravel: Violin Sonata No.2, II. “Blues,” mm. 28 – 35 (I)*

Sound Clip #25: Bessie Smith: *Downhearted Blues* (1923), 0:24 – 0:36

Sound Clip #26: Maurice Ravel: Violin Sonata No.2, II. “Blues,” mm. 33*

Sound Clip #27: Bessie Smith: *Downhearted Blues* (1923), 0:04 – 0:05

Sound Clip #28: Maurice Ravel: Violin Sonata No.2, II. “Blues,” mm. 28 – 35 (II)

Sound Clip #29: Maurice Ravel: Violin Sonata No.2, II. “Blues,” mm. 91 – 94 (I)

Sound Clip #30: Maurice Ravel: Violin Sonata No.2, II. “Blues,” mm. 91 – 94 (II)*

Sound Clip #31: Aaron Copland: *Nocturne*, mm. 1 – 3 (I)*

Sound Clip #32: Aaron Copland: *Nocturne*, mm. 1 – 3 (II)*

Sound Clip #33: Aaron Copland: *Nocturne*, mm. 1 – 3 (III)

Sound Clip #34: Aaron Copland: *Nocturne*, mm. 5 – 9 (I)*

Sound Clip #35: Aaron Copland: *Nocturne*, mm. 5 – 9 (II)*

Sound Clip #36: Aaron Copland: *Nocturne*, mm. 5 – 9 (I - Reduced Speed)

Sound Clip #37: Aaron Copland: *Nocturne*, mm. 5 – 9 (II - Reduced Speed)

Sound Clip #38: Aaron Copland: *Nocturne*, mm. 5 – 9 (III)

Sound Clip #39: Aaron Copland: *Nocturne*, mm. 8 – 9 (I)

Sound Clip #40: Aaron Copland: *Nocturne*, mm. 8 – 9 (II)*

Sound Clip #41: Aaron Copland: *Ukulele Serenade*, mm. 1 – 9 (I)*

Sound Clip #42: Aaron Copland: *Ukulele Serenade*, mm. 1 – 9 (II)

Sound Clip #43: Aaron Copland: *Ukulele Serenade*, mm. 34 – 41 (I)*

Sound Clip #44: Aaron Copland: *Ukulele Serenade*, mm. 34 – 41 (II)

Sound Clip #45: Aaron Copland: *Ukulele Serenade*, mm. 91 – 100 (I)*

Sound Clip #46: Aaron Copland: *Ukulele Serenade*, mm. 91 – 100 (II)

Sound Clip #47: Aaron Copland: *Ukulele Serenade*, mm. 91 – 100 (III)

Sound Clip #48: Joe Venuti: *After You’ve Gone* (1931)

Sound Clip #49: Aaron Copland: *Ukulele Serenade*, mm. 122 – 131 (I)*
Sound Clip #50: Aaron Copland: *Ukulele Serenade*, mm. 122 – 131 (II)

Sound Clip #51: Leonard Bernstein: “Socrates: Alcibiades,” mm. 108 – 117 (I)*


Sound Clip #53: Leonard Bernstein: “Socrates: Alcibiades,” mm. 125 – 134 (I)*


Sound Clip #56: Billie Holiday: Strange Fruit (1939)

* = Signifies Sound Clips from Recordings Selected by Jazz Experts
List of Video Clips

Video Clip #1: Joe Venuti: Segment #1 from Dick Gibson’s Colorado Jazz Party (1967)
Video Clip #2: Joe Venuti: Segment #2 from Dick Gibson’s Colorado Jazz Party (1967)
Video Clip #3: Stuff Smith: Segment #1 from Art Ford’s Jazz Party (1958)
Video Clip #4: Joe Venuti: Segment #3 from Dick Gibson’s Colorado Jazz Party (1967)
Video Clip #5: Clip #4 Slowed Down
Video Clip #6: Stuff Smith: Segment #2 from Art Ford’s Jazz Party (1958)
Video Clip #7: Clip #6 Slowed Down
Video Clip #8: Stéphane Grappelli: It Had To Be You (1986)
Video Clip #9: Stuff Smith: Segment #3 from Art Ford’s Jazz Party (1958)
Video Clip #10: Stéphane Grappelli: Segment from Montreal Jazz Festival (1984)
Video Clip #11: Joe Venuti: Dick Cavett Show (1977)
Video Clip #12: Stuff Smith: Bugle Blues (1965)
Video Clip #13: Stéphane Grappelli: How High the Moon (1991)
List of Figures

Figure 1. Representation of Knowlton’s notion of “Secondary Rag” .................................................. 23
Figure 2. Gunther Schuller’s representation of sound’s equilibrium between sound’s horizontality and verticality central to swing ................................................................. 35
Figure 3. Bessie Smith’s “Downhearted Blues,” measures 9 to 11, corresponding to sound clip #1 ........................................................................................................................................ 50
Figure 4. W.C. Handy’s “St. Louis Blues,” measures 49–57, corresponding to sound clip #4 .... 52
Figure 5. Louis Mitchell’s “Ain’t We Got Fun,” corresponding to sound clip #9 ....................... 53
Figure 6. Louis Mitchell “Ain’t We Got Fun,” corresponding to sound clip #10 ...................... 54
Figure 7. Rhythmic evolution of jazz as notated by Copland in his 1926 article “Jazz Structure and Influence” ............................................................................................................. 57
Figure 8. Zez Confrey’s “Stumbling,” measures 28-31, corresponding to sound clip #11 ........ 58
Figure 9. Copland’s re-barring of the chorus section in Confrey’s “Stumbling” (Figure 8) to reflect his notion of a “molecule of jazz” ...................................................................................... 58
Figure 10. George Gershwin’s “Fascinating Rhythm,” measures 49, corresponding to sound clip #12. Blue lines signify metrical structures while red lines indicate grouping structures ......... 59
Figure 11. Scott DeVeaux’s transcription of Coleman Hawkins’ “Body and Soul,” mm. 10–11, corresponding to sound clip #16 ........................................................................................................... 68
Figure 12. Violin Sonata No.2, second movement, mm. 15 - 18 (Ravel), demonstration of “blue-note complex” in measures 17 to 18 ..................................................................................... 73
Figure 13. Ravel’s “manipulation” of the standard 12-bar blues form into 10-bar form ............ 74
Figure 14. Violin Sonata No.2, second movement, mm. 12-13 (Ravel), example of Ravel’s “minute stylization” of jazz ........................................................................................................ 75
Figure 15. Violin Sonata No.2, second movement, mm. 26 (Ravel), example of Ravel’s “minute stylization” of glissandi typical of jazz trombonists ........................................................................ 75
Figure 16. Violin Sonata No.2, second movement, mm. 67 - 70 (Ravel), example of Ravel’s construction of “superstructure” ........................................................................................................ 76
Figure 17. Violin Sonata No.2, second movement, mm. 73 - 74 (Ravel), example of Ravel’s construction of “superstructure” ........................................................................................................ 76
Figure 18. Violin Sonata No.2, second movement, mm. 95 - 97 (Ravel), example of Ravel’s construction of “superstructure” ........................................................................................................ 77
Figure 19. Violin Sonata No.2, second movement, mm. 107–109 (Ravel), example of Ravel’s construction of “superstructure” .......................................................... 77
Figure 20. Nocturne, mm.1 (Copland), example of Copland’s asymmetrical subdivision of the bar .......................................................................................................................... 78
Figure 21. Nocturne, mm.5–7 (Copland), example of Copland’s “molecule of jazz” .......... 79
Figure 22. Nocturne, mm.4–7 (Copland), Copland’s suggestion of “swing’s duality”/“swing’s paradox;” the red arrows represent “vital drive,” and the blue arrows signify “relaxation,” as implied by Copland’s rhythmic notations and performance instructions. ..................... 80
Figure 23. Ukulele Serenade, mm.54-64 (Copland), Copland’s notations of “molecule of jazz” 81
Figure 24. Ukulele Serenade, mm.56–57, piano right hand only (Copland), Copland’s suggestions of “vital drive” (red arrows) and “relaxation” (blue arrows) ......................... 82
Figure 25. Ukulele Serenade, mm.132-135 (Copland), Example of Copland’s “molecule of jazz:” Red and blue lines mark metrical structures implied in Copland’s notation and illustrate the polymetric characteristic central to his “molecule of jazz” ....................................................... 83
Figure 26. Leonard Bernstein’s Prelude, Fugue, and Riffs, mm.1–4. .............................. 85
Figure 27. Leonard Bernstein’s Prelude, Fugue, and Riffs, mm.32–35. ............................ 86
Figure 28. Leonard Bernstein’s Prelude, Fugue, and Riffs, mm. 124 –129. ...................... 87
Figure 29. Leonard Bernstein’s Serenade after Plato’s “Symposium,” Movement V: “Socrates: Alcibiades”, mm.196 –201: the bass pizzicatos in triplet rhythms are Bernstein’s most obvious reference to jazz .......................................................... 88
Figure 30. Leonard Bernstein’s Serenade after Plato’s “Symposium,” Movement V: “Socrates: Alcibiades,” mm.121–125: Bernstein’s suggestions of “relaxation” and “vital drive” .......... 89
Figure 31. Leonard Bernstein’s Serenade after Plato’s “Symposium,” Movement V: Socrates: Alcibiades, mm.125–134: Bernstein’s suggestions of “relaxation” and “vital drive” ............. 90
Figure 32. Leonard Bernstein’s Serenade after Plato’s “Symposium,” Movement V: “Socrates: Alcibiades,” mm.60–62: Metrical shifts that are central to Bernstein’s conceptualization of swing ......................................................................................................................... 91
Figure 33. Leonard Bernstein’s Serenade after Plato’s “Symposium”, Movement V: “Socrates: Alcibiades,” mm.56 –59: Bernstein’s appropriation of rhythmic environment common to Bebop ............................................................................................................................................ 92
Figure 34. Leonard Bernstein’s *Serenade after Plato’s “Symposium.”* Movement V: “Socrates: Alcibiades,” mm.108–111: Bernstein’s use of metrical shifts to suggest metrical asynchrony between the melodic groupings and a perceived infrastructure ........................................ 94

Figure 35. The panel’s sound recording selections ........................................................................ 97

Figure 36. Violin Sonata No.2, second movement, mm.1–9 (Ravel): Winther’s pizzicatos suggesting forward motion, corresponding to sound clip #19 ........................................ 99

Violin Sonata No.2, second movement, mm.11–19 (Ravel): Winthers’ conservative use of vibrato, corresponding to sound clip #23 ............................................................................. 100

Figure 37. ................................................................................................................................. 100

Figure 38. Violin Sonata No.2, second movement, mm.29–38 (Ravel): Winthers’ management of vibratos and note durations as performed in sound clip #24 and #26 ......................... 101

Figure 39. Violin Sonata No.2, second movement, mm.29–38 (Ravel): Winthers and Romaniuk’s management of “vital drive” (red arrows) and “relaxation” (blue arrows), as performed in sound clip #24 ............................................................................. 102

Figure 40. Violin Sonata No.2, second movement, mm. 91–97 (Ravel): Performers’ management of “vital drive” and “relaxation in sound clip #29 ........................................ 104

Figure 41. Violin Sonata No.2, second movement, mm. 91–97 (Ravel): Winther and Romaniuk’s management of “vital drive” and “relaxation as well as emergence of 2/4 meter, as presented in sound clip #30 ............................................................................. 106

Figure 42. *Nocturne*, mm. 1–3 (Copland) .................................................................................. 109

Figure 43. *Nocturne*, mm. 1–3 (Copland): Forman’s management of “vital drive” (red arrows) and “relaxation” (blue arrows), as performed in sound clip #31 ........................................ 109

Figure 44. *Nocturne*, mm. 1–3 (Copland): Pattey’s management of “vital drive” (red arrows) and “relaxation” (blue arrows), as performed in sound clip #32 ........................................ 110

Figure 45. *Nocturne*, mm. 1–3 (Copland): Management of “vital drive” (red arrows), “relaxation” (blue arrows), and rhythmic ambiguities (“?”) as demonstrated in sound clip #33 ....... 111

Figure 46. *Nocturne*, mm. 4–11 (Copland) .............................................................................. 112

Figure 47. a). *Nocturne*, mm. 5 (Copland); b). Measure 5 distilled into the 16th note subdivisions to highlight the coordination of movements from piano’s left hand (1) to the violin line (2) to the piano’s right hand .................................................................................................................. 113

Figure 48. *Nocturne*, mm. 4–11 (Copland): a). The coordination of movements amongst the parts is not clear due to ambiguous rhythmic executions in the violin, as demonstrated in sound clip
#38 b). The rhythmic construction of the falling gestures invokes various approaches to performance: sound clip #38 exaggerates the “relaxation” while sound clip #40 demonstrates the interplay of vital drive and relaxation suggestive of rhythmic feel akin to swing.

Figure 49. Nocturne, mm. 8-9 (Copland): blue arrows indicate over-exaggeration of “relaxation” as performed in sound clip #39.

Figure 50. Nocturne, mm. 8-9 (Copland): blue and red arrows indicate interplay of “vital drive” and “relaxation” as demonstrated in sound clip #40.

Figure 51. Ukulele Serenade, mm. 1–10 (Copland): red circles illustrate early entrances and blue circles represent late placement of the notes, as demonstrated in sound clip #42.

Figure 52. Ukulele Serenade, mm. 34–41 (Copland): vertical black lines illustrate the superimposition of 3/4 metre on the 4/4 metre.

Figure 53. Ukulele Serenade, mm. 89–100 (Copland).

Figure 54. Ukulele Serenade, mm. 91–93 (Copland): Gordon’s management of “vital drive” (red arrows) and “relaxation” (blue arrows) in the pizzicatos, as performed in sound clip #45.

Figure 55. Ukulele Serenade, mm. 122–131 (Copland): circled chords indicate Copland’s early placement of the chords and the vertical lines signify the “verticality” that is enhanced through Gordon’s articulations and Copland’s rhythmic treatments, as demonstrated in sound clip #49.

Figure 56. Ukulele Serenade, mm. 122–131 (Copland): circled sections indicate the pianist’s and the violinist’s elongations of notes, as demonstrated in sound clip #50.

Figure 57. “Socrates: Alcibiades” of Serenade after Plato’s “Symposium,” mm. 116–118 (Bernstein): Hahn’s and BSO’s demonstration of “internal timing” and the resulting collective sense of “vital drive” and rest in m. 117, as demonstrated in sound clip #51.

Figure 58. “Socrates: Alcibiades” of Serenade after Plato’s “Symposium,” mm. 123–137 (Bernstein): Hahn’s articulation and management of note durations that enhance sense of “vital drive” in mm. 131, 133, and 133, as demonstrated in sound clip #53.

Figure 59. “Socrates: Alcibiades” of Serenade after Plato’s “Symposium,” mm. 116–117 (Bernstein): segmented phrasing that results from the violinist’s approach to articulation, as demonstrated in sound clip #54.

Figure 60. Bowing suggestions from Evan Price’s Etude #2.

Figure 61. Bowings from Rhythmic Exercises in Section I and II of Joe Venuti’s Violin Rhythms: A School of Modern Rhythmic Violin Playing.
List of Appendices

Appendix 1: Biographies of Jazz Experts ................................................................. 176
Appendix 2: Interview Methodology and Questions .............................................. 182
Appendix 3: Citations of Selected Sound Recordings ......................................... 184
Appendix 4: Informed Consent Form .................................................................... 164
Introduction

The purpose of this dissertation is to examine how several significant classical music composers have tried to incorporate music that swings, particularly jazz and blues, into compositions that showcase the violin. It also aims to offer performers insights into how they might interpret these compositions and others like them through attention and informed approaches to several vital aspects of swing—namely rhythm, timing, and articulation. Because jazz and swing are primarily aural traditions, representation of many of their rhythmic particularities using the notational systems of Western European music has proven difficult, if not impossible. The main reason for this is that, according to noted jazz violinist Matthew Glaser, the visual mechanism of a score is a “crude and inefficient method of capturing an auditory experience.”¹ Similarly, violin pedagogue Julie Lieberman proposes that “fiddle styles, swing, and jazz are all languages that are better learned by ear. When notated, they tell you little or nothing about how to create their unique sound” (Lieberman 46). Thus, with limited options for illustrating the full gamut of sounds, systems of notation become an ineffective way to provide instructions for reproducing the nuances that create the feeling of swing. Aware of the challenges of representing swing in this way, I then refer to sound recordings of swinging music produced at the time of the compositions to supplement expert jazz musicians’ opinions on recorded performances of several jazz-inflected compositions. The aim of such a task was to focus on key aspects in performances that were common in sound recordings the jazz experts preferred and provide grounds for discussing particular interpretive approaches to the scores.

Of the various parameters of music that give swinging music, such as jazz and blues, its particular sound, subtleties and variations in rhythm are the greatest challenges to notate using a system that relies on equal divisions of time and pulse. Despite the apparent shortcomings of notations in describing, let alone prescribing, the many rhythmic nuances that are central to swing, many noted composers of Western Art Music (WAM) have attempted to include this elusive notion in their compositions, some of which explicitly reference either blues or jazz. For the purposes of this dissertation, I will focus on The Blues movement of Ravel’s Violin Sonata No.2, Aaron Copland’s Ukulele Serenade and Nocturne, and the “Socrates: Alcibiades”

¹ Glaser, Matthew. Personal Interview. 15 January 2015.
movement of Bernstein’s *Serenade after Plato’s “Symposium”* and analyze Ravel’s, Copland’s, and Bernstein’s attempts to incorporate the rhythms of swing into their compositions.

Performing such music presents an interpretive problem unique to these types of compositions. Pioneering jazz scholar André Hodeir states that “jazz is able to put to good use what it acquires from European music, but the European tradition is incapable of assimilating what jazz has to offer” (Hodeir 263). He goes on to argue that, in the case of jazz-inflected compositions “aesthetically and technically, the pieces… must be regarded as great failures…. [in which] composers’ energy was spent in an impossible and useless effort at transplantation” (Hodeir 263). Despite Hodeir’s dismissive attitudes toward jazz-inflected concert pieces, I assert that the “failure” of these compositions is not inevitable, and that they should only be considered failures if they are performed in a way that does not suggest awareness of the rich traditions that were the primary sources of inspiration for the composers. While Hodeir considers the limitations of notation to be the primary reason for the failure of the composers’ efforts to reference swing, I would counter that they only emphasize the performers’ responsibility for filling in the gaps that naturally result from the approximate information that is communicated through notation. In other words, I see the so-called flaws of these pieces as a possible virtue and a site for performers to make informed choices about how they perform what the composer intended by interpreting what is written.

The swing-informed approach developed here aims to take into account the subtle details related primarily to jazz performance sensibilities and concepts that cannot be captured or communicated via standard Western notation and yet are central to conveying a sense of swing in performance. My attention to jazz is not to assert that jazz violin techniques and approaches to performance are necessarily more appropriate than those of classical violin playing when interpreting swing-inflected Western art music. Indeed, as I will discuss, classical techniques remain vital. However, because the primary source of inspiration for these pieces under consideration was jazz, and in the case of Ravel, the blues, violinists ought to take into account, or at least be aware of, key attributes of these practices and their most fundamental performance conventions when shaping their interpretations.

This type of informed perspective on interpreting art music with other stylistic appropriations, especially folk idioms, has been advocated by musicologist Amanda Bayley. Bayley argues that
characteristics of Hungarian speech and diction are crucial for interpreting compositions by Béla Bartók (1881-1945). In particular, the third movement of his Fourth Quartet (1928) requires performers to have “perceptive attitudes” which allow them to view articulation markings not only as technical instructions but also as clarifications of speech nuances (Bayley 355). As Bayley explains, this “perceptive attitude” emphasizes a need for performers to be cognizant of the primary source (in this case, Hungarian speech patterns) in order to transfer the subtleties of speech into the domain of music performance (Bayley 355).

Following Bayley, it is my hope that this perceptive attitude can help support the interpreting and performing of swing inflected compositions. A swing-informed approach to Western art music compositions that reference jazz and blues, then, promises to facilitate performances that, as Nicholas Cook states, “satisf[y] all the work-identifying instructions conveyed by the score in conjunction with the conventions and practices it presupposes” (Cook 252).

To address how classically trained violinists can better interpret and perform swing-inspired compositions, five questions will be addressed:

1. How have musicologists, performers, and jazz musicians defined ‘swing’?
2. How have art-music composers, namely Ravel, Copland, and Bernstein, conceptualized swing?
3. How have these composers notated swing?
4. What attributes of performances of these pieces help some swing more or better than others?
5. How can a deeper understanding of the above four questions help classical violinists critically interpret and thus better perform such music?

The answers to these five questions provide a blueprint for developing a swing-informed approach to performance that will take into account the aural traditions and history of jazz (as the archetype of swinging music) and highlight key performance sensibilities that may be applied in performances that also respect the composers’ intent.

While there are several compositions by lauded composers that reference jazz and blues, there is limited literature on the subject of jazz and swing in Western art music and even fewer publications dealing with how performers should interpret and perform swing-inflected compositions. Although jazz and swing are often mentioned in literature pertaining to music by Ravel, Bernstein, and Copland, most authors merely acknowledge jazz’s influence on the composers’ writing rather than analyze the rhythmic particularities and influences on each composer’s conceptualization of swing. Musicologist Deborah Mawer’s collection of essays,
Ravel Studies (2010), provides the best clues to the potential jazz influences on Ravel during the 1920s, but fails to link particularities of jazz performance and swing to his compositional language. Similarly, literature on Copland’s jazz influences, such as Reed David’s 2004 dissertation, provides insights into the composer’s attitudes towards jazz and discusses how he suggested “jazz rhythms” and “jazz tone colors” in his notations. However, issues related to performance that are critical in conveying the rhythmic feel of swing that was so central to Copland’s compositional style are unaddressed. Lastly, literature on Bernstein, such as Lars Erick Helgert’s 2008 dissertation Jazz Elements in Selected Concert Works of Leonard Bernstein: Sources, Reception, and Analysis, presents an excellent overview of Bernstein’s relationship with jazz and his conceptualization of swing, but only provides cursory explanation of the processes relevant to realizing it in performance. In summary, secondary sources often focus on the composer’s methods of emulating the rhythmic feel of swing, but they rarely discuss the particularities of performance that were central to each composers’ primary sources for understanding it or how to apply them in subsequent performances of the compositions. For this reason, it is necessary to define a swing-informed approach rooted in aural sources related to the composer’s notation and to propose guidelines for performance that might not only inform performers on the composers’ intentions in appropriating swing but also aid them in realizing and conveying the rhythmic feel of swing.

First Steps toward a Definition of “Swing” and “Swing-Informed”: Jazz and the Concept of “Swing” in the 1910s

Although a lack of relevant sound recordings and scholarly work before 1914 makes a complete chronological study of how swing emerged difficult and inherently problematic, there is general consensus that jazz and its core rhythmic phenomenon, swing, resulted predominantly from the synthesis of blues, military marches, and ragtime, at the turn of the twentieth century.² Regarding this process of musical acculturation musicologist Reid Badger summarizes: “between 1908 and 1919 certain subtle modifications of popular ragtime-based rhythms and tonality, along with an increasing acceptance of extemporization, gained such wide-spread recognition that by 1919 it

² Schuller remarks that jazz resulted “from half a dozen tributary sources,” and his analysis of jazz’s origin delves into gospel music and African musical traditions (Schuller 4). However, his conclusion emphasized the predominant role the blues, ragtime, and military marches in providing the musical ingredients for not only jazz but also swing.
was common in the United States and Europe to speak of the existence of a new music—jazz” (Badger 49). These “subtle modifications” were not the result of one particular musician or band, but instead were the culmination of complex cultural forces, which included the rise of social dancing, the development of sound recordings, and the great migration of African-Americans from the rural South to the urban city centers of New York, St. Louis, and Chicago. Although the implications of each of these cultural forces are beyond the scope of this dissertation, it is important to note that these factors contributed to the gradual formation of rhythmic phrasing distinct to each territory of the United States, which makes isolating any kind of linear pattern of swing development misguided.\(^3\) The variety of ways that rhythmic concepts developed, coupled with the lack of complete documentation of how swing emerged, necessitates a critical discussion of jazz’s initial emergence as a genre at the turn of the twentieth century.

Despite how accessible theories about the development of jazz may be, many are quite formulaic and thus overlook the more subtle and complex ways in which musical styles were integrated to constitute jazz’s key characteristics and performative tendencies. For example, Hodeir’s statement that the “birth of jazz” resulted from “the clash of blues and military marches” excludes ragtime and does not take into account how periodic accentuations and syncopations in ragtime helped to embed concepts of metrical counterpoint or how instrumentalization of ragtime promoted more liberal approaches to performing articulations—both of which are foundational to swing (Hodeir 44).\(^4\) In contrast to Hodeir’s assessment, musicologist David Wondrich’s equation, “jazz = ragtime + blues” (Wondrich 120) includes ragtime but excludes military marches, overlooking the influence of marches not only on jazz’s harmonic structures and

---

\(^3\) Gunther Schuller delineates these regional characteristics in comparing the performance styles of Coleman Hawkins and his band, the Jazz Hounds, who were representative of New York jazz during the early 1920s with Oliver and Piron Orchestra and the Bennie Moten bands who were illustrative of New Orleans and Kansas City jazz during the same time period. Regarding the New York style, Schuller states, “the eighth notes are played very much as a dotted eighth-sixteenth pattern () , and there is very little legato playing…. At the same time, the Oliver and Piron orchestras were playing a more loping triplet rhythm, while still farther west, the Bennie Moten band was playing even eighth notes in an uncomfortably primitive, stiff manner” (Schuller 257).

\(^4\) Regarding the implications of ragtime instrumentation, jazz historian Garvil Bushell explains, “the change to jazz began to come around 1912 to 1915 when the four stringed banjo and saxophone came in” (Schuller 67).
planning but also on standardizing jazz instrumentation, which contributed to the music’s rhythmic feel and performance styles.\(^5\)

While ragtime and military marches are certainly vital to the development of what became known as jazz, the inclusion of the blues in both equations suggests that the blues are even more important in understanding jazz’s historical trajectory and swing’s development. Despite the slight inconsistencies amongst scholars on the specifics of how various musical styles were merged in the rise of jazz, there seems to be a consensus that the blues was “the root of jazz” (Oliver 11). Many musicologists emphasize the foundational role of the blues in jazz’s emergence; in their 1984 book *Introduction to Jazz History*, musicologists Donald Megill and Richard Demory state that “blues is the foundation upon which all jazz developed” (Oliver 11).

To appreciate the importance of the blues in shaping early stages of jazz’s and swing’s development, it is thus necessary to discuss what the blues was in the early twentieth century and what musical attributes distinguished it from other musical genres that existed pre-jazz. As musicologist Paul Oliver states, “the blues was a separate form of music [that] probably began to develop from other black folk forms… [and] was completed as a form by about 1910” (Oliver 17). Blues, as a black folk idiom, was essentially fully improvised sung speeches pertaining to the “laments of oppressive living and working conditions” (Keil 19). The earliest examples of the blues, which date back to the days of the American Civil War, were improvised call-and-response field songs and, as such, featured an interplay of chorus with a leading cantor. Although the *Journal of American Folklore* labeled this idiom “blues” in 1915, written observations of the blues date as far back as the mid-nineteenth century. Among the first historical documentation of the blues, Frederick Law Olmstead, the architect of New York’s Central Park, observed in 1853 his African-American workers singing in “loud musical shouts, rising and falling and breaking into falsetto” (Wondrich 121). Charles Peabody, the Harvard archaeologist who studied the Mississippi Delta in 1901, made similar observations of musical styles unique to African-Americans, witnessing lullabies that were “quite impossible to copy, weird in interval and strange in rhythm, [but] peculiarly beautiful” (Wondrich 121). Until the end of the nineteenth

\(^5\) The prevalence of African-American musicians performing military marches suggests that military marches, were even more crucial than ragtime as venue for increasing the audibility of black musicians performing *en masse*. As musicologist John Hasse notes, “in 1888, *Metronome* magazine was reporting that New Orleans had twenty to twenty-five bands…the colored race monopolize the procession music” (Hasse 8).
century, the blues remained an art form that, as Wondrich explains, belonged “first and foremost to the human voice” (Wondrich 122).

Although current literature treats blues as both a musical genre and a specific musical form in jazz that features twelve bars of melody over a predetermined chord progression (most often I-IV-I-V\(^7\)-I), blues neither had a musical form nor a standardized harmonic outline at the turn of twentieth century. Besides the call-and-response layout of the blues, its musical parameters were discretionary, providing an ideal musical platform to incorporate various musical traditions under the umbrella of one musical style. Melodic content was relatively free from prescribed harmonic structures and underlying rhythmic infrastructure and, most frequently, featured a pitch system that resembled the pentatonic scale seen in WAM (Hodeir 42). Regarding the pitch content featured in vocal blues, Swiss conductor Ernest Ansermet remarked that blues performers “seek pleasure beyond our [WAM] orthodox intervals; he achieves thirds which are neither major nor minor, and false seconds… thus, no written music can possibly give an idea of his playing” (Lang 24). The ambiguity of pitch content and the lack of metre and form distinguished the blues from other musical styles such as ragtime and military marches that preceded jazz.

Although there is much debate as to how these musical characteristics of the blues determined some of the most defining features of jazz, many agree that the ambiguity in pitch content as well as extemporization common to vocal blues not only provided jazz many of its most fundamental characteristics but also introduced, as Schuller explains, “the liberating inducement of improvisation” (Schuller 147). There is consensus amongst musicologists and composers that the “blue note” and the blues scale, which result from the flattening of the third and seventh in a diatonic major scale, resulted from the consolidation of the five-tone African scales with the scale systems common to WAM. Along with providing jazz with its fundamental harmonic vocabulary, the incorporation of blue notes also gradually informed improvisatory practices, such as note bending, that involved approaches to performance outside the accepted performance practices of WAM. As musicologist Ian Lang states, “unlike standards of European trained singers, they [blues singers] are cheerfully prepared to sacrifice clarity of diction; and as they are cheerfully indifferent to ‘correctness’ of pitch or any abstract standard of beautiful tone” (Lang 102). Although Lang’s claim that blues singers are “cheerfully indifferent” is unsubstantiated, their approaches to intonation necessitated a “re-thinking [of] the music… in terms of a melodic-harmonic language” (Schuller 145). Similarly, the lack of metre and form introduced processes
in performance that were not bound to the rhythmic systems of WAM that relied on equal divisions of time and invoked manners of rhythmic playing that laid foundations for swinging in performance. As African-American author, music scholar, and cultural critic Leroi Jones (now Amiri Baraka) explains, “although jazz developed out of a kind of blues, blues in its later popular connotation came to mean a way of playing jazz” (Jones 95). This quote underlines how blues’ improvisatory nature engendered developments in the performative dimensions of swing, which became one of the most typifying aspects of jazz performance. In short, improvisatory practices central to the blues became central to the performance of jazz and were foundational to jazz’s unique rhythmic feel, commonly known as swing in the subsequent decades. Schuller emphasizes this point in stating, “in the 1920s, as several musical styles coalesced into the one that finally came to be known as jazz, the only tributary source that seemed to remain constant was the blues” (Schuller 67).

The historical uncertainties as to how swing emerged necessitate a discussion into how I define “swing” and “swing-informed” in this dissertation. As discussed above, the improvisatory practices foundational for swing were also central to the blues, suggesting that “swing” as a term can refer to the underlying processes of performance and aesthetics integral to both blues and jazz. For this reason, the term “swing” in this dissertation will not only pertain to the rhythmic characteristics of the 1930s jazz, as commonly used in jazz literature, but also refer to a rhythmic feel of ebb and flow that culminates from subtle processes in performance that may or may not be explicitly indicated in the score. Following this logic, discussions of a “swing-informed” approach to performance focus on concepts and performance sensibilities common to jazz that facilitate performers’ ability to convey a sense of rhythmic feel akin to swing rather than in replicating “it” as can be heard within the context of jazz performances. Based on this premise, the proposed “swing-informed” approach in this dissertation is not intended to provide strict directions that will enable performers to swing in the jazz sense. Rather, it suggests ways performers can interpret and execute rhythmic notations in a manner that may be more effective in realizing in performance each composer’s conceptualization of swing.

Methodology: Secondary and Primary Source Literature

A vital first step towards homing in on a swing-informed approach to interpretation is to review how performers, scholars, and composers have defined what is a very elusive concept. The
overview of literature discussing swing will not only highlight the most common ways it has been defined, but also underline the caveats to proposing one comprehensive definition of it. As my discussion will show, this goal is rendered not only impossible but also counterproductive by the subjectivity of swing as well as the rapid changes in jazz performance practice, including radical shifts in rhythmic feel and articulation.

Secondary literature on Ravel, Copland, and Bernstein will be essential in discussing each composer’s relationship with the music of their time that was called “jazz.” This scholarship will guide me toward musical examples of the swinging music that each composer was likely to have heard and will provide insight into the particularities of swing that were foundational in each composer’s conceptualization of swing. Although all of these composers viewed swing as a rhythmic feel typifying jazz, each conceptualized and notated it in distinct ways, emphasizing the need to consider their methods of appropriating swing as the second step towards devising a swing-informed approach to performing their jazz-inflected compositions. Thus, publications pertaining to each composer’s methods of appropriating swing will supplement these discussions and will be key in determining, for example, if elements of swing were mere stylistic additives or a central aesthetic for their jazz-inflected compositions. This engagement with secondary literature and, in some instances, primary sources written by the composers will precede and frame my analyses of sound recordings in later chapters of the dissertation.

Sound Recording Analyses

While identifying common traits of swing as well as understanding how each composer incorporated elements of swing into their compositional style are the first steps towards parsing each composer’s notations, sound recording analyses will help in highlighting the subtle attributes in performance that typified swing throughout the twentieth century. Presenting various examples of jazz timing, rhythms, and articulations, among many other performance sensibilities, sound recordings provide an aural picture of the common performance tendencies that typified jazz in the time periods relevant to each of the composers. Analysis of these carefully selected recordings, then, will provide the basis for deducing what features of jazz and its performance each composer referenced or attempted to appropriate in certain passages in their jazz-inflected compositions. Essentially, these sound recording analyses will help to clarify the many nuances that are central to the sound of swing aimed for by each composer but lost in their
Along with supplementing discussions into each composer’s jazz influences, sound recording analyses will also provide insights into how performers on published sound recordings of the selected pieces have interpreted them. My primary concern is how they balance adherence to the composers’ notations with conveying a sense of swing. The identification of jazz sensibilities in the performances will highlight the processes that help performers to elicit a sense of swing and, therefore, provide the basis for proposing a swing-informed approach. These discussions set up an examination of playing techniques common to jazz violin performance and present ways they might be applied to the performance of other jazz-inflected WAM compositions.

Interviews with Elite Jazz Performers

Given the subjectivity of swing and the subtle processes that are central to conveying it in performance, consulting experts on jazz emerged as a useful step in devising a swing-informed approach to performance. Although print sources pertaining to jazz violin performance, such as Matt Glaser’s book *Jazz Violin* and Julie Lieberman’s book *The Contemporary Violinist*, do highlight common tendencies in jazz violin performance and provide performance guidelines, they are not practical resources to consult when determining how, and to what degree, jazz performance sensibilities apply in the performance of jazz-inflected concert pieces. For this reason, interviews with jazz experts Evan Price, David Balakrishnan, and Andrew Downing will supplement the available literature on jazz performance and will help in pinpointing the subtleties of jazz that may be incorporated in the performance of the pieces to better convey swing. During the interviews, each expert was presented with commercially available sound recordings of the pieces and asked to select the one that they deemed to swing the most in a jazz-like way. Subsequent analyses of these performances helped identify performance attributes that were instrumental in conveying a sense of swing and provide the foundations for the swing-informed approach I develop.6

6 It is important to note that the jazz experts may or may not have paid attention to the historical particularity of swing being referenced in each of the pieces. It is possible that they based their evaluation on their own sense of swing in a contemporary sense.
Video Recording Analysis

The video component of the media submission will illustrate some techniques involved in the performing of swing on the violin. Supplemented by the written analysis of various playing techniques and the interviews, the video clips detail the mechanics of executing swing’s articulations and rhythms. To better understand jazz playing techniques, the video analyses will study the performance tendencies of Joe Venuti (1903-1978), Stephane Grappelli (1908-1997), and Stuff Smith (1909-1967) and highlight the common tendencies in their playing styles that have remained consistent even to this day. Identifying key technical approaches to jazz violin playing, these video recording analyses set up discussions into how these techniques can be applied to performances of other jazz-inflected compositions available in the WAM tradition.

Structure of the Dissertation

It is my hope that this dissertation will help musicians make interpretive choices that may be beyond the traditional scope and precepts of classical violin playing. To that end, it is divided into five main chapters and a conclusion.

Because swing is so central to jazz and yet such an abstract concept, the first chapter compiles some of the most prevalent definitions of swing within the jazz and classical music communities. It discusses how descriptions of swing’s rhythmic characteristics, measurements of its rhythmic components, and interpretations of its notation have contributed to current understandings of the notion. Figures throughout the chapter illustrate the various dimensions of swing and present findings of studies that have focused on empirically analyzing the swing feel. This chapter concludes with a discussion of how the subtleties and complexities of ‘swing’ necessitate a swing-informed approach that allows greater degrees of flexibility in interpreting and performing notated jazz rhythms while still keeping in mind composer’s intent. Thus, I offer the first steps toward a critical approach to interpreting scores of jazz-influenced WAM, on which I elaborate in Chapter Two.

Since jazz sound concepts are very different from the traditional aural aesthetics of Western Art Music, Chapter Two delves into how sonic tendencies and characteristics of 1920s jazz and 1940s Bebop influenced the compositional styles of Ravel, Copland, and Bernstein. Sound samples featuring a few of the most influential jazz performers from the 1920s to the 1950s supplement the discussions to better illustrate the aural aesthetics that influenced the
compositional process of the selected pieces. Primary sources—writings and lectures by the composers—and referenced to clarify how jazz influenced their compositional styles and to what degree they intended to personalize or preserve the “swing-ing” of jazz. By presenting each composer’s conceptualization of swing, this chapter further develops a framework for interpreting this music and provide tips in recognizing and accentuating the pieces’ allusions to swing. Ultimately, this chapter lays the groundwork for discussing how the composers notated swing’s particularities based on jazz in their respective periods.

While the second chapter details each composer’s relationship to jazz, Chapter Three explores each composer’s notation of swing, linking it to the performance particularities identified in Chapter Two. In highlighting the dimensions of swing composers alluded to or referenced in their notations, Chapter Three provides the basis to devise a swing-informed approach that better integrates key subtleties of swing within the guidelines provided by the composers’ notations.

Chapter Four addresses how jazz performance sensibilities may be applied in performance to realize each composer’s conceptualization of swing. Integrating interviews of jazz experts, score analysis of the works under consideration, and sound recording analyses, this chapter presents how subtle manners of articulating, feeling the pulse, and managing sound durations may be applicable in the performing of jazz-inflected compositions. In short, Chapter Four presents specifics of the swing-informed approach and justify its applicability within art music contexts. Furthermore, discussions in Chapter Four lays the groundwork for discussing jazz violin techniques that may be applicable in the performance of other jazz-inflected works.

The final chapter of the dissertation examines performance techniques that are common to jazz violin playing. Surveying sound and video recordings of Venuti, Smith, and Grappelli, this chapter catalogs the most common traits in their performance styles and explores how performance sensibilities common to these players may be applicable in the performance of jazz-inflected concert pieces. The aim of the chapter is not to suggest that jazz violin techniques are more appropriate than those of the classical tradition when performing jazz-inflected compositions but to suggest that small tweaks in techniques allow performers to access these two different traditions in ways consistent with a swing-informed approach. Ultimately, this portion of the research outlines technical approaches to performance that are pertinent to a swing-informed approach and provide technical guidelines for performers who wish to access aesthetics
and the rhythmic feel of swing in other jazz-inflected compositions.

The conclusion of the dissertation summarizes the main steps that I have used to outline a swing-informed approach. Along with listing the benefits of sound and video recording analyses in studying a musical phenomenon that cannot be aptly notated or described on paper, the conclusion presents the steps future performers can use to personalize their approaches to the performance of other concert pieces that draw on idioms beyond the WAM tradition. Lastly, it emphasizes the important role of higher musical education in equipping students with the tools and abilities to make informed choices in performance.

**Significance for Future Musicians**

The interconnectedness of musical communities in the digital age has dramatically accelerated the speed with which musical sounds and concepts mix, resulting in new changes and possibilities for musical creation and performance. This is but one compelling reason that today’s classical musicians should not only be knowledgeable about the various soundscapes and styles outside the scope of classical music traditions but also be well-informed about the techniques involved in producing sounds associated with these diverse practices. Although training in classical music contexts remains one of the most critical tools in the reading and the performance of (notated) music within the Western art tradition, knowledge of approaches to performing other genres has become exceptionally useful and applicable when the compositions draw upon other types of music. Swing-inspired violin compositions aptly illustrate this since they require performers to have both the technical proficiency of classical musicians *and* a thorough comprehension of the aural aesthetics of music such as jazz and blues.

Despite the benefits of adopting Bayley’s perceptive attitude toward the pieces discussed in this dissertation and the many others that reference jazz, blues, and swing, there is very little literature broaching the topic, let alone pursuing anything resembling a swing-informed approach to interpretation and performance. While musicians are increasingly fusing stylistic traits of various performance traditions, academic discourse and literature pertaining to violin performance lag behind and tend to perpetuate the traditional boundaries between classical music and other types including jazz. It is my hope that this dissertation, at the very least, will ignite discussions into how integration of stylistic and performance tendencies of jazz and classical music may benefit future performers in expressing the unique ‘swing-ing’ qualities of jazz-
inspired pieces.
Chapter 1
What is Swing?

When jazz trumpeter Cootie Williams was asked to define swing, he joked, “Define it? I’d rather tackle Einstein’s theory!” (Tolson 80). As this quote illustrates, ‘swing,’ which is often referred to as the Holy Grail of Jazz, is one of the most elusive concepts to analyze, dissect, and explain (Tolson 80). Composers, musicologists, and jazz performers have taken different avenues in trying to explain swing’s many dimensions. Igor Stravinsky (1882-1971) referred to it as an “amusing and giddy sensation” that “arises from the irregular pulsation and accentuations that do not succeed in directing the ear from the regular pulsation beaten out” (quoted in Joyner 82). While Stravinsky’s description emphasizes the musical features of swing, the glossary of Jazz in America defines it as the “individual player’s or ensemble’s ability to perform in such a rhythmically coordinated way as to command a visceral response from the listener (to cause feet to tap and heads to nod); an irresistible gravitational buoyancy that defies mere verbal definition” (Tolson 80). Jazz performers, on the other hand, do not always describe swing as a rhythmic concept but as a stylistic dimension in the domain of performance; Louis Armstrong described it as the “ability to play by ear” and designated it as “a matter of sheer musical instinct” (quoted in Walser 74).

This chapter highlights the polyvalence of swing and discusses the ways in which scholars, musicologists, composers, and performers have analyzed and defined its particularities. Via this critical overview, I focus on what André Hodeir identified as the five main ingredients of swing, as presented in his seminal work Jazz: Its Essence and Evolution (1956), as a basis for structuring my own discussions of swing throughout the rest of the dissertation. While many of Hodeir’s ideas are problematic, more recent studies have nuanced his propositions rather than discarding or contradicting them entirely, making his original analyses ideal starting points for proposing a more comprehensive and applicable understanding of swing. Thus, I will inflect my use of Hodeir to take into account subsequent critiques of his work.

Theorizing Swing

In attempting to define the many dimensions of swing, scholars, musicians, and performers have used three different analytical approaches: syntactical, processual, and empirical. These three approaches help not only in spotlighting key characteristics of swing but also in emphasizing the
need for developing an approach to performance that accounts for its subtle particularities, most of which are impossible to notate using the fixed notational system of Western Art Music.

Syntactical Analytical Method in Discussing Swing

A syntactical approach aims to study swing’s rhythmic features typically using the Western notational system as a foundation. Discussions using the syntactical approach highlight syncopation’s role in accentuating a musical performance’s polyrhythmic and polymetric attributes and explore the ways jazz performers subdivide the pulse using WAM’s metrical schema. Examples include Hodeir’s work, as well as another seminal jazz study, Gunther Schuller’s The Swing Era (1989). Notably, both authors analyze and describe swing’s rhythmic particularities using the notational system of WAM traditions.

Much like Hodeir’s and Schuller’s writing, pedagogical literature reflective of the syntactical analytical approach to swing has used standard Western notation. Most include an attempt to standardize swing rhythm, most typically as $\frac{3}{4}$; Jerry Coker in his 1964 book Improvising Jazz, Joachim Berendt in his 1992 book The Jazz Book: From Ragtime to Fusion, and Robert Abel in his 1996 article “An Investigation into the Operation of Swing in Jazz” all reduce the complex ratios of the swing rhythm to this basic notation. Although this conventional representation of swing rhythm, or even The Swing Rhythm, is convenient for providing the most simplified visual presentation of the groove most commonly heard in jazz and related music, especially blues, many scholars such as Jerry Tolson, Fernando Benadon, and Matthew Butterfield, have noted that it is too vague and general to be of use beyond its intended, very basic, pedagogical purpose. Many of these same critics, however, continue to view the unequal subdivision of the quarter note as foundational to understanding swing.

Indeed, scholarly debates and literature reiterate Stravinsky’s assessment that the asymmetrical subdivisions of the basic quarter-note pulse provide the basis for the lilt and the forward propelling feel, which are the hallmarks of jazz (Lindsay 74). Yet many move well beyond this basic assessment. For example, Gunther Schuller explains that the uneven subdivisions of the quarter note create “specific types of accentuation and inflections [which provide] the forward-propelling directionality with which the individual notes are linked together” (quoted in Butterfield 3). Music theorist Matthew Butterfield and ethnomusicologist Charles Keil add to
Schuller’s observation in stating that the fundamental premise of swing is a sense of propulsion or “motional energy” generated not only by “durational inequality” but also by the contrapuntal interactions between symmetrical and asymmetrical subdivisions (Butterfield 3). Building upon Keil’s and Butterfield’s conclusions, musicologist David Joyner states that the simultaneity and the interactions of the different subdivisions further accentuate the rhythmic drive by superimposing relaxation and tension at the metrical level (Joyner 81). What emerges from these descriptions is an idea of swing that correlates to ideas developed by Hodeir, in particular his notions of “right infrastructure” and “right superstructure” that refer to the interactions between the collective pulse and the individual parts which create the ideal rhythmic environment for swing to manifest. Interestingly, as discussions into each composer’s conceptualizations into swing in Chapter Two will show, syntactical views on swing are foundational in each composer’s interpretation and notation of swing. For this reason, study of rhythmic syntax suggestive of swing will be central to the development of a swing-informed approach.

Processual Analytical Method in Discussing Swing

In contrast to the syntactical approach, the processual approach highlights performative issues that affect or contribute to the manifestation of swing. Studies analyzing the processes of performing jazz often include phrases or terms such as “playing in the pocket” and “groove,” not only framing swing as an auditory phenomenon that manifests from “proper” performance but also emphasizing the subjective and perceptive dimensions of experiencing the music. The applicability of the processual approach has been most apparent in ethnomusicological studies pertaining to the analysis of non-Western European musical practices. To name a few, Charles Keil’s *Music Grooves* (1994), which discusses the subjective processes of swing, Benjamin Brinner’s article “Cognitive and Interpersonal Dimension of Listening in Javanese Gamelan Performance” (2010), which explores to the rhythmic groove of Javanese gamelan playing, and Steven Feld’s article “Aesthetics as Iconicity of Style: Getting into the Kaluli Groove” (1994) which analyzes the improvisational singing traditions of the Kaluli people in Papua New Guinea, demonstrate the advantages of using the processual approach in the study of performing groove, which may transfer directly into the analyses of swing.

---

In relation to my study, processual approaches help in identifying performance sensibilities and processes of performance that are too subtle to be communicated via notations and yet central to the generation of swing. Engagement with processual analytical methods supplement Hodeir’s discussions on “getting notes and accents in the right place,” “relaxation,” and “vital drive” (Hodeir 207), all of which highlight manners of performing that are central to swinging. Furthermore, studies in the processes of performance provide justification for sound and video recording analyses that are more effective in discussing the subtle details and nuanced approaches to performances that ultimately fall through the cracks in a literal reading of notated manuscripts. In short, processual approaches highlight the shortcomings of notations in providing detailed performance instructions for swinging in performance and further emphasize the need for a swing-informed approach in interpreting and performing fully-notated compositions that reference swing.

Empirical Analytical Method in Discussing Swing

Lastly, the empirical approach aims to measure and transfer the rhythmic dimensions of swing into analyzable data, arguably providing a scientifically grounded understanding. Findings from empirical approaches underline the subtleties and the nuances of jazz rhythms and illustrate the ubiquity of microrhythms in performances of various music traditions. Examples of the empirical approach include Neil Todd’s “A Model of Expressive Timing in Tonal Music” (1985), Nicolas Cook’s “Structure and Performance Timing in Bach’s C-Major Prelude (WTC I): An Empirical Study” (1987), and Anders Friberg’s and Andreas Sundström’s “Swing Ratios and Ensemble Timing in Jazz Performance: Evidence for a Common Rhythmic Pattern” (2002). Such scholarship demonstrates the utility of the empirical approach in the study of not only performances in jazz but also those in WAM. When discussing swing, empirical studies problematize the standard triplet notation of the rhythm (see above) and provide justification for a more flexible approach to performing it that allow for microrhythmic deviations that are key features of jazz performances. Furthermore, the understanding engendered in empirical studies suggests that the swing-informed approach proposed in this dissertation is not too radical, given that degrees of flexibilities in rhythmic execution can be observed even in the performance of WAM. In short, quantitative evaluations of swing typical of empirical approaches to analyzing swing justify applying a swing-informed approach in performance that may invoke flexible approaches to rhythmic executions.
Returning to Hodeir

Despite the variety of approaches used in the attempt to understand swing, none supersede many of the basic premises offered by Hodeir in terms of their utility for my study. For example, the interactions between asymmetrical rhythmic units noted in all of the above studies are the foundations for Hodeir’s discussions of rhythmic “infrastructure” and “superstructure” (Hodeir 197), which are the first of five central ingredients in producing swing:

1. The right infrastructure
2. The right superstructure
3. Getting the notes and accents in the right place
4. Relaxation
5. Vital drive.

Hodeir’s “right infrastructure” refers to the ideal rhythmic environment for establishing a sense of pulse that not only retains the sense of buoyancy inherent in the swing feel, but also allows room for rhythmic flexibility and accuracy. According to Hodeir, the right infrastructure entails either the 2/4 or the 4/4 metre and a tempo which ranges from $\frac{3}{4} = 54$ to $\frac{3}{4} = 360$ (Hodeir 197). Within this range, Hodeir specifies that, “the infrastructures that have proved most favourable to swing are… the “medium tempo” or “moderato”— around 168 quarter notes a minute, [which] has been called “swing tempo” (Hodeir 198).

Along with the metre and tempo, another essential criterion for the “right” infrastructure is the presence of syncopations. Considering them as one of the most effective rhythmic figures for creating the swing of jazz, Hodeir defines syncopations as “…the anticipatory emission of a note…” which shift the placement of notes “…from the strong part of one beat to the weak part of the preceding beat” (Hodeir 200). Although syncopations are not unique to jazz, what is particularly interesting is that syncopations in jazz contexts are much more nuanced and feature anticipations of notes at various rhythmic levels. As illustrated above, pedagogical literature on

---

8 As evidenced by Hodeir’s rhythmic prescription for an ‘ideal’ rhythmic environment, Hodeir’s assessments on the ingredient of swing are his personal recommendations, based on his own assessment of jazz, which do not allow for a nuanced approach to analyzing swing that could better account for the subjective nature of the rhythmic phenomenon.

9 Hodeir’s usage of term “swing tempo” refers to the tempos that are most conducive for allowing swing to manifest rather than a general tempo for the 1930s big band music typical of the Swing-Era.
jazz most often presents syncopations at the level of the triplet rather than on the level of the eighth note. Indeed, one of the primary structural differences between Western classical music and jazz is that, within simple metres such as 2/4 and 4/4, subdivisions in jazz contexts feature more of a ternary rather than a binary division of the beat. By placing syncopations almost a triplet ahead of the downbeat rather than an eighth note ahead, jazz syncopations simultaneously achieve two auditory effects: the rhythmic tension is intensified and the horizontal momentum of the rhythm, which is propelled by the expectancy of the down beat, weakens the intensity and the gravity of the downbeat. Musicologist Butterfield summarizes these effects of jazz syncopations in stating that “anacrusis engenders an active anticipatory orientation… and denies closure and sustains the forward flow of motional energy” (Butterfield 10).

Empirical studies analyzing various rhythmic elements of swing as performed by different musicians have corroborated Hodeir’s notions of “right infrastructure.” Ellis (1991), Friberg and Sundstrom (2002), and Benadon (2006) all measured swing ratios of improvised solos by jazz performers. Swing ratio, also commonly known as duration ratio, refers to the temporal relationship between two consecutive eighth notes. Benadon represents duration ratios using Beat-Upbeat-Ratios (BUR) values, increments of measurement signifying “the temporal proportion between two subsequent eighth notes” (Benadon 74).  

To analyze duration ratios further, all three of the above-mentioned studies used MIDI devices connected to a computer as a way to extract sound durations and take measurements of BUR values. In Ellis’s 1991 study, three saxophonists played melodic patterns over a computer-generated bass line on a “small electronic saxophone with a fingering system nearly identical to that of the saxophone” (Ellis 709). Friberg and Sundstrom measured the swing ratios of the ride cymbal patterns of famous drummers, such as Tony Williams, from commercially available sound recordings. Benadon measured the duration ratios of solos from sound recordings for BUR values using the computer software SoundForge. In measuring subtle microrhythms, all three studies provided similar insights into jazz performers’ fundamental approaches to handling and managing rhythms and pulse in performance. For instance, all three found inverse correlations between tempo and sound ratios; in slower tempi, the musicians exercised looser approaches to rhythms and pulse which

---

10 Butterfield also uses BUR values in his analysis of John Coltrane’s tenor saxophone solo in I Hear a Rhapsody to present microrhythmic profiles that are similar to those provided in the empirical studies listed above.
produced greater unevenness in the eighth notes while more even subdivisions were observed in faster tempi. Benadon, Friberg, and Sundstrom suggest that this tendency highlights the perceptual and practical limits in detecting unevenness of subdivision in fast tempi (Friberg and Sundstrom 333). Benadon offers a more elaborate take on this point in stating, “At 120 beats per minute, for instance, there is a difference of 23 milliseconds between BURs 1.0 and 1.2, whereas at twice the tempo the difference between the same ratios is only 12 milliseconds. Therefore, at slower tempos the distinction between different BUR values may be more readily perceived than at faster tempos.” (Benadon 2006). This particular finding on the limits of a listener’s perception provides rationale for Hodeir’s tempo ranges that are ideal for swing, or at least common understandings of it related to a triplet-like subdivision of the pulse, to manifest.

Although Friberg and Sundstrom’s, Ellis’s, and Benadon’s studies all corroborate Hodeir’s underlying notions regarding the “right infrastructure,” they do not specify particular rhythmic units or tempos as being fundamental to swing. For example, in discussing the relationship between tempo and swing, Benadon does not give specific tempo ranges as Hodeir does in his explanation, and explicitly states that listeners’ ability to discriminate unevenness is “far from being ecologically valid” (Benadon 83). In addition, in contrast to Hodeir’s labeling of syncopations at the triplet level as “swing syncopations” and his assertion regarding ternary division of the beat being central to the “right infrastructure” of swing, none of the studies listed above reveal a consistent method in, or approach to, dividing the beat or specify a particular rhythmic unit as being more prone to eliciting swing (Hodeir 200). These discrepancies between the studies and Hodeir indicate that the rhythmic environment ideal for swing to manifest is much more nuanced than Hodeir’s explicit explanations of swing’s “right infrastructure.” Furthermore, the perceptual component of detecting varying duration ratios underlines the perceptual difficulties in perceiving and experiencing swing and the importance of discussing issues related to music cognition that may help to explain how listeners perceive swing.

The perceptive dimensions of swing become even more relevant when discussing Hodeir’s second ingredient of swing, “right superstructure.” Despite the prevalence of syncopations within a triplet framework in many jazz tunes, these rhythmic devices alone do not automatically typify jazz or the swing aesthetic. Critical listening to jazz performances and an overview of jazz literature reveal other rhythmic devices and characteristics that play a part in intensifying the rhythmic tension and the feeling of ebb and flow that is central to swing. For example, cyclical
accentuations on the weak parts of the beat have also been common crucial musical features associated with swing.

Musicologists such as Don Knowlton, Bernard Heuvelmans, and Avril Dankworth have demonstrated how accents on the weak parts of the beats are also effective in creating Butterfield’s notions of forward “motional energy.” In his *De la Bamboula au Be-Bop* (1951), Heuvelmans “points out that the strong beats are accented by length [horizontally] and the weak beats by force [vertically]” (Hodeir 199). The sharper attacks on the weaker beats and/or on the weaker parts of the beat not only take away from the gravity of the preceding strong beat but also provide a “basis for a second metrical stratum” (Knowlton 80). In his *Anatomy of Jazz* (1926), Knowlton explains the swing phenomenon not as a rhythmic effect but as a metrical effect and demonstrates how periodicity of syncopations and accentuations allow the production of two different metrical structures simultaneously. Knowlton labels this effect as “secondary rag,” explaining accents “superimpose one, two, three upon the basic one, two, three, four,” thereby creating a secondary metre (Knowlton 77). As seen in Figure 1a, repeated accentuations on every third eighth note, which fall on the weak parts of themetrical structure, imply a reorganization of the 4/4 metre into two bars of 3/8 and one bar of 2/8. When these superimpositions continue for additional bars, the rhythmic dissonance between the subdivisions and the larger pulse is made even more clear; as Figure 1b illustrates, when the 3/8 metre is imposed on the quarter note pulse indefinitely, the downbeat of both metres only align on the underlined and emboldened twelfth beat. In this way, Knowlton’s conceptualization of “secondary rag” outlines the basis for Hodeir’s notions of ‘right’ superstructure.

---

11 It is important to note that the 2/8 only exists within the context of explaining “secondary rag” within the scope of one measure.
Figure 1a:

\[
\begin{array}{cccccccc}
4 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
4 & > & > & > & \Rightarrow & 3 & 1 & 1 & 1 \\
\end{array}
\]

implies

\[
\begin{array}{cccccccc}
3 & 1 & 1 & 1 & 1 & 1 & 1 & 1 \\
4 & > & > & > & \Rightarrow & 3 & 1 & 1 & 1 \\
\end{array}
\]

\[1 = \text{Eighth Note Subdivisions}\]

Figure 1b:

\[
\begin{array}{cccccccc}
1 & 2 & 3 & 1 & 2 & 3 & 1 & 2 & 3 \\
1 & 2 & 3 & 1 & 2 & 3 & 1 & 2 & 3 \\
1 & 2 & 3 & 4 & 1 & 2 & 3 & 4 & 1 \\
\end{array}
\]

\[\text{Top Line: Subdivisions in } 3/8\]

Figure 1. Representation of Knowlton’s notion of “Secondary Rag”

Defining “superstructure” as “the rhythmic construction of the phrase conceived in terms of the infrastructure,” Hodeir highlights how the interactions between the rhythmic contents of the phrase or melody and the underlying metre are vital to the rhythmic foundation needed for swing (Hodeir 199). Although Hodeir does not explicitly classify swing as a metrical phenomenon and dismisses such interpretation as “unnecessary,” he implicitly acknowledges the polymetric nature of swing in stating that in fast tempos the syncopations at the triplet level become binary (Hodeir 199). In contrast to Knowlton, however, Hodeir does not organize the triplet syncopation as a secondary metre and simply treats them as rhythmic dislocations between the superstructure and infrastructure; thus, the discrepancy between Knowlton’s and Hodeir’s concepts of swing lies in their different approach to interpreting the defining rhythmic dislocations.

There seems to be several reasons why Hodeir avoids explaining this rhythmic misalignment from Knowlton’s metrical standpoint. For one, Hodeir’s views regarding the infrastructure focus predominantly on syncopations at the triplet level rather than accentuations on the weaker parts of the beat. The secondary rhythmic outline, which arises from the repeated use of the syncopations, does not necessarily fit neatly into any particular metre except 12/8. Also, Knowlton’s interpretation of swing as a metrical phenomenon suggests that the secondary metre is nonetheless determined in relation to the subdivisions of the underlying pulse. This implicit notion that the same subdivisions function as the rhythmic building blocks for both the infrastructure and superstructure overstates the sense of dependency between the two metrical structures in a way that renders it not wholly compatible with Hodeir’s views of right “infrastructure” and “superstructure.” Although Hodeir does not deny the importance of
constructing the melodic phrase within the rhythmic boundaries established by the infrastructure, he also states that the phrase should be “completely independent of it [infrastructure], giving rise to a kind of expectation that is one of jazz’s subtlest effects” (Hodeir 201). In spite of the fact that Knowlton’s interpretation is easier to comprehend and to present on paper, Hodeir’s understanding of swing, its problems notwithstanding, is nevertheless more reflective of its elusive nature, which defies simple metrical categorization.

**Phrase Rhythms in Hodeir’s Formulation**

Current studies of “phrase rhythms” suggest an elaboration of Hodeir’s explanations of “superstructure” rather than a departure from it. They also highlight the limitations of Knowlton’s “secondary rag” in clarifying swing’s rhythmic and metrical characteristics. Musicologist Stefan Love defines “phrase rhythms” as an “interaction of grouping structure and metrical structure” (Love iv). Grouping structure refers to the perceptual organizations of melodic content into segments, and metrical structure pertains to the underlying patterns of strong and weak beats which establish a hierarchical framework (Love 6). Grouping and metrical structures are certainly not unique to jazz, and phrase rhythms have been useful in studying the relationship between structural planning and metrical-harmonic outlines that typify WAM; Fred Lerdahl’s and Ray Jackendoff’s 1983 book, *A Generative Theory of Tonal Music* and David Temperley’s 2001 book, *The Cognition of Basic Musical Structures* discuss in great depth the emergence of grouping structures that are often coextensive with higher metrical strata, referred to as hypermetres, that align with the metrical structures at the various levels. In essence, within the context of Western Art Music, phrase rhythms are dependent on the harmonic blueprint, which determines the music’s metrical and grouping structures.

In contrast to phrase rhythms in classical music, the inherent flexibility of a formal harmonic plan within jazz contexts limits the role of tonal structures in suggesting particular metrical and grouping structures to the musical surface. Instead, “scheme,” which Love describes as “mental representation of abstract features … [that] generates expectations” plays a far more critical role in suggesting metrical and grouping structures within jazz contexts (Love 3). These mental representations arise from the periodicity of certain aural characteristics and help in establishing certain informed expectations that serve as perceptual anchors, which are essential for both performers and listeners in maintaining groove in environments of unplanned musical activities.
The indication of regular patterns of strong and weak beats, the metre, which music theorist Justin London defines as “the anticipatory schema that is the result of our inherent abilities to entrain to periodic stimuli,” functions as the primary perceptual anchor not only because it projects a schema that provides a sense of cohesion between unfolding musical events but also because it is the most consistent and unwavering musical parameter in jazz aesthetics (London 23). To the extent that Hodeir can codify the schematic metre into 2/4 or 4/4 metre, the metrical structure is consistently maintained in jazz performances even when soloists make drastic modifications to the original melody and harmony in their improvisations. Along with facilitating the internalization of the rhythmic infrastructure, the consistent metrical structure in jazz contexts allows soloists to create groupings that play against the overarching regularity of the schematic metre.

While reoccurring patterns of strong and weak beats suggest metrical structures, reoccurrences of various aural characteristics facilitate the emergence of grouping structures. In addition to accentuations, Love lists “rest, rhythm, harmony, repetitions, temporal proximity of attack points, timbre, dynamics, event density, and [motivic] patterns” as elements of sound and/or melody that may elicit the flagging of grouping structures (Love 6). Lerdahl and Jackendoff explain this phenomenon by stating that, along with metre, “grouping structure arises in the listener’s mind through the unconscious application of rules to the musical surface” (Love 7). As in the case of metrical structure, these rules are schematic, meaning that periodicity of the musical features listed above engender informed expectations, which help to segment musical events into particular groupings. In contrast to art music in which these grouping structures are most often planned to coincide with metrical structures for the purposes of accentuating the formal harmonic plan, jazz’s aesthetics feature highly flexible grouping structures that, more often than not, play with the underlying metrical structure and the formal structural outline.

Alluding to Knowlton’s notion of “secondary rag,” the periodicity of these misalignments elicits the perception of an additional metrical structure at the hypermetrical level; Love explains this phenomenon in stating, “parallelism among groups of irregular length often forces metrical structures into irregularity above the measure level” (Love 25).

---

12 This statement becomes less applicable to post-1940s jazz when both classical and jazz musicians became much more adventurous in terms of deliberately obscuring time and/or introducing polytempi.
Steve Larson’s 1996 examination of Charlie Parker’s solos and Keith Waters’ 1996 analysis of Herbie Hancock’s improvisations both elaborate on Knowlton’s notion and illustrate that the presence of two contradicting schematic metres distort the structural boundaries. In his 1996 article, “The Art of Charlie Parker’s Rhetoric,” Larson analyzed Parker’s solos in *Ornithology, Cosmic Rays, Dewey Square,* among many others, and concluded that Parker’s melodic phrases not only exhibit tendencies of deviating from the underlying metrical structure of the rhythm section but also “do not coincide with the 8-measure phrases of the original melody” (Larson 154). Corroborating Larson’s findings, Keith Waters examined Hancock’s solo in *The Eye of the Hurricane* and found that “pitch and motive connections cut across the 12-bar formal divisions and serve to blur the largest hypermetric divisions” (Love 29).

Although these studies into phrase rhythms do not explicitly reference either Hodeir’s “superstructure” or Knowlton’s “secondary rag,” their findings that phrase rhythms resulting from the interplay of independent melodic grouping structures and the rigid underlying metrical structure support the fundamental tenets of Hodeir’s and Knowlton’s concepts of “right superstructure” and “secondary rag.” However, while Hodeir’s and Knowlton’s explanations only pertain to swing’s rhythmic characteristics at the syntactical level, phrase rhythm analysis also provide insights into the crucial role of perception, underlining the cumulative cognitive processes that create “sensations of tensions and resolutions” which typify swing (Love 9). Indeed, by solely focusing on the auditory characteristics of swing in his assessment, Hodeir attempted to provide objective explanations for a concept that is not only subjective but also difficult, if not impossible, to study using analytical methodologies that focus on the music’s syntax. Ethnomusicologist Charles Keil notes this shortcoming in stating, “[Hodeir’s] general failure… is related to his initial denial of what I feel is a fundamentally sound assertion that… swing is a psychic tension” (Keil 59). In contrast, while Knowlton’s conceptualization of “secondary rag” did examine the emergence of a secondary metrical structure from the standpoint of perception, his explanation provided a rigid formula regarding the emergence of a secondary metre and overlooked the other aural attributes (other than accentuations) that may contribute to the manifestation of jazz phrase rhythms. Most importantly, both Knowlton’s and Hodeir’s understandings of swing’s rhythmic characteristics overlook the performative dimension in generating the metrical dissonances (and other visceral characteristics) that typify swing as a rhythmic phenomenon; Waters’ and Larson’s studies make it evident that the
performers’ management of various aural features and treatments of the melodic material help in creating diverse grouping structures independent of the rhythm section. In essence, the perceptive and performative dimension of swing’s “superstructure” gives more credence to James Reese Europe’s notion that swing “is something you do to the music not something in the music” (Weiner 68).

Process vs Syntax

As the critiques of Hodeir’s and Knowlton’s assessments of swing illustrate, models of music analysis that focus predominantly on the study of music’s syntax risk overlooking the processes of creating musical sounds—performance. Although several scholars have noted that swing is multidimensional and that process is a key component of understanding and interpreting music that swings, engagements with performance have not been central to academic musical analysis of jazz-inflected concert pieces. In his article “Motion and Feeling Through Music,” Keil distinguishes between the process of performance and the syntax of music. He describes syntax as the underlying construction that determines a particular pattern in the succession of tones and process as the creative act of music performance and, more specifically, the ways performers “inject feeling into the notes… which is impossible to evaluate objectively” (Keil 50, 151).

Partly because of the utility of studying musical syntax when analyzing WAM, the syntactical approach to musical analysis has been the primary focus in academic studies of many other types of music. Along with having a physical score to study, classical music is well suited to such an approach because, as scholar Leonard Meyer states, a “one-to-one relationship between syntactic form and expression” (Keil 54) is inherent in the composers’ meticulous planning of the harmonies and melodies. Meyer explains this relationship between syntax and expression through the label “embodied meaning” which highlights how syntax is not only necessary but also sufficient in explaining the music’s construction, presentation, and interpretation. Although many scholars in the 21st century, such as Charles Keil, Steven Feld, and Christopher Small challenge this notion, this theory is in line with the musical discourse and attitudes of the latter half of 20th century, which showed greater trends toward the rationalization of music. Indeed, Keil describes this trend as “the effort to move [music] increasingly into the hands of the conductors and into the heads of theorists, Platonists” (Keil 156). Thus, within the syntactical paradigm, which presupposes that the music is in the written music, the performance becomes for many people secondary to the notations on the score.
In an effort to address his concerns about music as process, Keil introduces the notion of "engendered feelings" to highlight an approach to music that shifts the focus away from the music’s syntax to the processes of its performance (Keil 54). Although the processual approach is applicable in the study of performances in WAM contexts, the utility of this approach is most apparent when considering, for example, non-Western European musical practices that "...are almost exclusively performance traditions" (Keil 54). In such traditions, there are several fundamental differences from WAM’s hierarchy and relationship between the performer and the notations on the score. A key difference is that many non-Western musics are rooted in more improvisatory practices rather than employing pre-composed, detailed manuscripts as the basis by which performers produce and perform the music. Within the context of the performance traditions Keil is discussing, the use of a score is either rare or limited to the transfer of only basic information; unlike in WAM contexts, control over key performative parameters, such as articulation, timbre, execution of pitch, and handling of rhythm, are based on the performer’s discretion rather than the composer’s intent. Without a detailed blueprint that lays out the musical narrative or a tradition of prioritizing the composer’s intent, performers (and not the composers) carry the ultimate responsibility in making meaning through their execution and treatments of notes. The process of analyzing music through the study of how performers create meaning rather than the thorough study of the score marks the key difference between syntactical and processual approaches to music analysis and highlights one of the many distinctions between Meyer’s notion of “embodied meaning” and Keil’s concept of engendered feeling.

Within the domain of performance, embodied meaning and engendered feeling paradigms dictate different aesthetic goals. While the primacy of the score in the syntactical embodied meaning approach establishes performance as “essentially reproductions [of the musical work] and consequently a subordinate if not actually redundant activity” (Cook 2), in the “engendered feeling” paradigm, performances are musical activities in which performers generate groove, which ethnomusicologist Allen Farmelo defines as the “unifying consequence of the music…which ultimately exists in the human perception” (Farmelo 1).13 Within the context of jazz,
Hodeir equated groove with swing, and ethnomusicologists, such as Charles Keil, Steve Feld, and Joost Van Praag, have used the terms interchangeably to discuss the “psychic tension that comes from the rhythm’s being attracted by the metre” (Farmelo 2). The use of both terms to refer to an auditory phenomenon, which is consequent of jazz’s rhythmic dimensions, highlights how the generation of musical groove is dependent on subtle treatments of rhythms, microrhythms, and metres that are not limited to or easily expressed by the rhythmic notations available to composers. Along with performers’ handling of rhythms, scholars interested in music as process have also recognized performers’ approaches to other parameters of music, such as timbre and articulation, to accentuate the groove. In describing how performers generate groove, Keil stresses the importance of “participatory discrepancy” (Keil 96), which he defines as “slight human inconsistencies in the ways that musicians execute rhythm, timbre, and pitch” (Farmelo 4). Because the manifestation of swing is dependent on the performers’ unique treatments of these musical parameters, which are too subtle to be aptly distinguished through notation, “participatory discrepancies” (as Keil called them), rather than a precise reading of the score, become important in the presentation of powerfully grooving music. For this reason, the embodied meaning paradigm is “at best problematic and at worst nonsensical when applied to jazz (Cook 2),” and this incompatibility highlights the need to examine the swing phenomenon from the standpoint of not only its rhythmic features and syntax but also from its performances, which engender the auditory experience of swing.

**Hodeir’s Third Ingredient: Getting Notes and Accents in the Right Place**

Given the flexible relationship between the pulse and the rhythmic content of swing melodies, Hodeir’s third requirement, getting the notes and accents in the right place, is more complicated than just prescribing rhythmic notations to a set of pitches. In contrast to his detailed explanations of right infrastructure and superstructure, Hodeir does not provide an explanation that accounts for where and how notes should be placed within the context of the superstructure to elicit various levels of rhythmic tension. Although his descriptions of jazz syncopations do provide an idea of where notes can be placed, as stated before, the delicate balance between performance traditions of jazz and classical music, the balance in prioritizing composers’ intent and the taking of interpretative freedoms shifts depending on the type of music in question.
rhythmic flexibility and interdependency inherent to swing cannot be reduced to one specific musical syntax.

The difficulty in identifying “the right placements” of notes is evidenced by the fact that Hodeir’s discussions focus on improper rather than the proper placement. In explaining how not to place notes, Hodeir opines, “one of the old timers’ most common weaknesses results from their playing syncopated notes prematurely, in moderate tempos, on the second third of the beat. This “corny” syncopation is a carry-over from the polka style. Rhythmically, the effect is deplorable…” (Hodeir 205). In lieu of enumerating the proper ways of placing notes, Hodeir cites the performance styles of many of the jazz greats, such as Louis Armstrong, Count Basie, and Charlie Parker, who, in his opinion, capture the essence of “getting the notes and accents in the right place;” in particular, he references Armstrong’s solo in “Big Butter and Egg Man,” Basie’s solo in “Blue and Sentimental,” and Parker’s improvisation in “Embraceable You” (Hodeir 203). It is quite clear from listening to the solos that the rhythmic tension is achieved through rhythmic devices and treatments that are not limited to syncopations at the triplet level and are too varied and subtle to be aptly illustrated via any notational systems.

Theorizing Articulation in the Creation of Swing

Further complicating Hodeir’s notion of getting notes and accents in the right place is the variety of articulations possible in the context of music rooted in swing. This makes interpretation particularly difficult for those who are not familiar with its idioms and conventions of music such as jazz and blues. Hodeir underlines the thorny subject of articulation in stating, “the problems of articulation and accentuation… only make it hard to get everything in place” (Hodeir 206). Regarding the diverse assortment of articulations observed in jazz contexts, musicologist David Joyner explains:

Another important element of swing is the manner of articulation and accentuation. It is one of the subtlest and elusive of swing elements, much more so than playing syncopated rhythms. This type of playing works at both extremes, sharply articulating selected notes while barely uttering others, referred to in jazz parlance as ‘ghosted’ notes. There is also the use of a generally softer attack of the note, a ‘doo’ rather than ‘too’ articulation (Joyner 82).
While sharp “too” articulations are predominant in rhythmically active classical music, there are greater uses of softer “doo” articulations, which Heuvelman describes as agogic accents, in swinging jazz music (Joyner 82). Matthew Glaser explains that in the case of the trumpet, “it is hard to get the air stream flowing in the beginning of the note so the beginning of the note often starts with a ‘puh’ rather than a ‘tuh.’” Correlating this inherent characteristic of wind instruments with the rhythmic feel of swing, James Collier’s (1996) study of microrhythms in jazz revealed that the ergonomic delays, which “involve the physical process of note production on a given instrument,” contributed to the greater presence of not only microrhythms but also rounder “doo” articulations.

Pedagogical writings on jazz, such as Jerry Tolson’s *Jazz Style and Articulation*, have also wrestled with the idea of “doo” articulations—and their variety—through scat syllables. Made famous by Louis Armstrong in his “Hotter than That” track, scat syllables are “a combination of long and short syllables, such as doo, day, ba, da, va, dart, dow, and dit,” that summarizes the broad spectrum of accentuations (Tolson 81). It is interesting to note that although t’s are widely used to signify definitive beginnings and endings in sound, d’s are most often used to illustrate the initial microsecond delay in the onsets of sounds, which typify consonant articulations. Although these microsecond delays seem inconsequential, they help in heightening the metrical and rhythmic tension within the superstructure.

Studies of articulation’s role in the perception of tempo and asynchrony in sound onsets have supported the assertion that articulation styles enhance the rhythmic tensions inherent to swing. In their 2006 study “The Effect of Articulation Style on Perception of Modulated Tempo,” musicologists John Geringer, Clifford Madsen, Rebecca MacLeod, and Kevin Droe investigated the “effect of legato and staccato articulation styles on the perception of modulated tempos” in recorded excerpts of Aaron Copland’s *Appalachian Spring* and Gustav Holst’s *First Suite in E-flat* (Geringer 327). These pieces and the particular recordings were selected because they predominantly feature one of the two articulation styles and exhibited consistency in tempi

---

14 One reason for this may arise from the fact that the instrumentation of jazz has centered on wind instruments which initiate sounds with consonant articulations.

throughout the selected musical excerpts (Geringer 327). Corroborating assertions that articulations influence listeners’ perception of tempo, the results of the study found that excerpts featuring staccato articulations were judged as increasing in tempo more than legato musical excerpts and, inversely, that musical excerpts featuring legato articulations were assessed to slow down even when tempo was constant.

Further implicating the role of articulations in influencing the listeners’ perception of tempi and pulse, Butterfield’s 2009 study tested the popular theory that swing emerges from the “asynchronous timing between bass and drums, [the hi-hat cymbal to be specific], in their shared articulation of the beat” (Butterfield 157). In the first experiment presented in the study, Butterfield presented synthetic sound samples featuring asynchronies between bass and hi-hat onsets and asked three participants to indicate which instrument tended to arrive first on the down beats. Analysis of the results indicated that participants identified drum leads more correctly than bass leads. 16 Strong correlation between instrumentation and tempi also emerged; the success rate of identifying leading drum onsets increased while accuracy decreased in detecting bass leads in faster tempi. These findings suggest listeners’ greater acuity and sensitivity in detecting the “t” articulations inherent to the drum hi-hat and further corroborate the notions that articulations indeed affect the perception of asynchrony and swing’s rhythmic groove.

In the same study, Butterfield conducted a second experiment using the same procedure from the first experiment except that sound recordings of live musicians were used instead of synthetic sound clips. The sound samples included tunes from Jamey Aebersold’s play-along albums and live performances of jazz greats such as Sonny Rollins (b. 1930) and Art Blakey (1919-1990), which were selected to correspond as closely as possible to the tempi presented in the first experiment. In contrast to the results of the first experiment, average scores of bass leads “were virtually identical to those for drum leads,” offsetting the perceptual bias for drum leads previously observed in the first experiment involving synthetic sounds. 17 Furthermore, results of

16 While participants identified drum leads at an average rate of 60.1%, they correctly distinguished bass leads at a rate of 48% (Butterfield 161).

17 Contrast to experiment 1, drum leads were correctly identified at a rate of 55.1% while bass leads were correctly recognized at a rate of 55.3% (Butterfield 165).
the second experiment did not duplicate previous findings that showed a clear relationship between tempi and success rate in identifying drum leads. Instead, the results highlighted an inverse relationship between success rate and tempi for both instruments, not only supporting Hodeir’s tempo ranges but also emphasizing the perceptual threshold for detecting asynchronies. Most importantly, these findings suggest that real jazz bassists employ elements such as timbre in conjunction with the instruments’ inherent articulation to elicit the sense of ebb and flow of swing. Butterfield emphasizes this conclusion in stating, “participants performed considerably better in identifying bass leads here [in experiment two] than in experiment 1...suggesting a potential effect of timbre, attack, or some other quality in generating ‘push’ in conjunction with timing” (Butterfield 165).

In conjunction with Geringer’s findings, Butterfield’s study provides more substance to Hodeir’s statement: “swing is not simply a question of time values; the succession of attacks and intensities is also an important part of it” (Hodeir 196). In providing evidence that articulations not only influence the perception of swing’s infrastructure but also enhance the sense of rhythmic tension at various metrical strata, Geringer’s and Butterfield’s studies emphasize the conspicuous role of articulations in the manifestation of swing and justify its inclusion in Hodeir’s ingredients for swing. Interestingly, despite the important role of articulation in eliciting swing, Butterfield’s second experiment highlights articulation’s limited effect and leads him to conclude that “although not negligible, articulation’s role in eliciting swing is relatively modest, minimally salient, and not likely the central force behind the production of… swing” (Butterfield 166). In essence, similar to studies on “phrase rhythms,” recent studies into articulations situate their effects as matters of perception, again highlighting swing’s subjective nature and the performative factors that contribute to its manifestation.

“Correct Placement of Notes” and the “Rhythmic Pocket”

While previous discussions of Hodeir’s third ingredient pertained to manners of articulation and their effect on listeners’ perception of swing, his notion of the “correct placement of notes” underlines the processual approaches in performance that are essential to placing and maneuvering sounds in the polyrhythmic environments commonly associated with music that swings. As the commonly-used phrase “playing in the pocket” suggests, a processual approach is
important for trying to understand how getting the notes in the “right” place enhances listeners’ perception of swing. As in my critique of Hodeir’s assessment of the superstructure, the syntactical approach also shows itself to be problematic for analyzing the “pocket” because its position within the time continuum may not always correspond to the rhythmic template of WAM’s notational system. This incompatibility arises from the fact that playing in the pocket refers to the timing of notes within the context of the underlying groove, which is not strictly bound to the pulse. Although groove is loosely dependent on the pulse, the main discrepancy between groove and pulse is that the pulse pertains to the metronomic division of time while groove results from the management of pulse.

Music sociologist Simon Frith’s notions of “internal” and “external” musical time further emphasize this conceptual discrepancy; while external timing refers to a “theoretical framework of beats regularly spaced in time,” internal timing results from the “shared and coordinated sense of time amongst the performers” (Farmelo 3). Although Frith does not explicitly relate internal timing to the generation of swing, I assert that the notion of playing in the pocket in jazz ultimately pertains to the performers’ ability to place notes in performance to reinforce the subjective metre, which emerges from inter-rhythmic ensemble coordination during performance. In short, playing in the pocket refers to the placement of notes to enhance listeners’ perception of internal timing, which may deviate from the underlying sense of pulse.

Given that internal timing emerges from ways performers coordinate in performance and is, therefore, ultimately a subjective phenomenon, it is important to explore means to qualitatively gauge its conveyance in performance. To this end, in his article “Making Music Together,” phenomenologist Alfred Schütz (1899-1959) suggests:

The flux of tones unrolling in inner time is an arrangement meaningful to both the composer and the beholder, because and in so far as it evokes in the stream of consciousness participating in it an interplay of recollections, retentions, protentions, and anticipations which interrelate the successive elements. …The composer by specific means of his art, has arranged it in such a way that the consciousness of the beholder is led to refer what he actually hears to what he anticipates will follow and also to what he has just been hearing and also to what he has just been hearing and what he has heard ever since this piece of music
began. The hearer, therefore, listens to the ongoing flux of his music so to speak not only in the direction from the first to the last bar but simultaneously in a reverse direction back to the first one (Schütz 89).

Schütz’s explanation suggests that one of the key attributes of inner time or internal timing is the listeners’ ability to perceive the interplay of sonic elements as “interrelating…successive elements” (Schütz 89). He further asserts that this sense of interrelation facilitates listeners to perceive “the ongoing flux” (ibid., 89) of sounds “in the direction from the first to the last bar but simultaneously in a reverse direction” (ibid., 89), suggesting that the resultant perceptual effect of interrelating notes is the perception of horizontal direction. In sum, Schütz’s explanation of internal time implies that the perception of horizontal direction or movement amongst the successive musical elements may be one of the key criteria not only for determining whether or not performers are successful in maintaining internal timing during performance but also for the emergence of the rhythmic pocket in performance.

It is important to note that although perception of horizontal direction and internal timing are key aspects of playing in the pocket, they alone do not guarantee the presence of swing in a performance. In his book The Swing Era (1989), Schuller states, “a perfectly beautiful horizontal rendition- let’s say of a theme or melody or riff- will not in itself produce swing if the vertical aspects, i.e. the rhythmic…are not equally attended to” (Schuller 224). He further explains, swing results from “the [performers’] ability to maintain a perfect equilibrium between the “horizontal” and “vertical” relationships of musical sounds…which occurs when both the verticality and horizontality of a given musical moment are represented in perfect equivalence and oneness” (Schuller 224). To supplement his explanation, Schuller provides a graphic illustration of this equilibrium (Figure 2):

![Figure 2. Gunther Schuller's representation of sound's equilibrium between sound's horizontality and verticality central to swing](image)
Regarding this figure, Schuller writes:

…the nodes represent played notes or audible time points and the arrows depict the simultaneous integrated flow of performance energies. A part of the brain and the feel in impulses 1) are directed toward maintaining the horizontal flow from note to note. Another element of these energies 2) is involved with the vertical aspects of the music and feeding these up towards the horizontal line. A third part 3) is involved with the opposite: constantly relating the horizontal down towards the vertical. This complicated duct system must be maintained at an even flow and perfect balanced control over whatever period of time the performance is to cover (Schuller 224).

These explanations emphasize the importance of maintaining a balance between Schuller’s horizontal flow and the vertical aspects of the music, which for him often refers to external timing or the sense of pulse. Corroborating Schuller’s observation, jazz violinist Evan Price states, “there is no substitute for rhythmic accuracy and integrity...you cannot have swing unless it is just accurate...but it is not just about accuracy or the sequencer would have the best swing...it has to do with how the accents are treated and how weight is applied to it; there is a level of sensitivity.”18 This common view amongst jazz scholars and performers suggests that although mechanical adherence to pulse does not elicit swing, internal timing central to playing in the pocket must be maintained in ways that reinforces the listeners’ perception of external timing. In short, Hodeir’s correct placement of notes is an elusive concept that relates to performers’ ability to place notes and manage sounds to enhance the sense of internal timing and horizontal motion while maintaining a consistent sense of pulse. As sound recording analyses in Chapter Four illustrate, these details in performance related to “correct placement of notes” play a critical role in conveying Hodeir’s notions of “relaxation” and “vital drive.”

Relaxation and Vital Drive

Much like correct placement of accents/notes, Hodeir’s fourth and fifth ingredients, relaxation and vital drive, are components of swing that elude notational classification and syntactical

identification. Emphasizing this impalpable quality of relaxation, Hodeir states, “musical analysis will not do us much good” (Hodeir 206). In lieu of a syntactical explanation he proposes a definition of relaxation from a neuro-muscular standpoint in stating, “many musicians, both accompanists and soloists, have a perfectly correct idea of tempo and phrase structure and just where the notes should go, but still cannot get across the swing because their bodies betray them” (Hodeir 207). Despite the simplicity of Hodeir’s explanation, it is only of theoretical interest rather than of practical relevance because it does not provide instructions on how performers can convey relaxation in performance. Furthermore, Hodeir’s explanation too strongly suggests a one-to-one relationship between sounding relaxed and being relaxed, oversimplifying a complex process in performance. Hodeir’s explanation of vital drive is just as formulaic as his description of relaxation. Hodeir writes, “vital drive [is a] manifestation of personal magnetism which is somehow expressed in the domain of rhythm… [and] undefined forces that create a kind of rhythmic fluidity” (Hodeir 207). As in his description of relaxation, Hodeir both simplifies and mystifies the performance processes that facilitate the communication of the rhythmic ebb-and-flow characteristic of swing. In attempting to clarify Hodeir’s definition, Butterfield suggests that relaxation and vital drive both relate to the musicians’ “use of expressive microtiming at the subsyntactical level” (Butterfield 1).

Christopher Hasty’s theory of metrical projection is also useful for clarifying Hodier’s notions. In his book *Metre as Rhythm*, Hasty interprets metre as a process rather than a prescribed, mechanistic division of time. Hasty characterizes metre in terms of ongoing projections of duration; Butterfield summarizes this concept in stating “sounds initiate projective potential—the potential to project a subsequent duration” (Butterfield 2). According to Hasty, metre is established by the ways sounds project certain durational patterns that condition the listener to perceive time in certain ways. What makes this theory particularly relevant to swing is that the projective potential is realized during the sound’s duration, meaning that the performers can influence the way listeners’ perceptually group musical elements. Based on this premise, I

---

19 The validity and the usefulness of Hodeir’s definition of “relaxation” ends here because his hypotheses proceed to hinge on preconceptions, which are controversial and unsubstantiated. His most controversial proposition is that the “American Negroes… are capable of complete neuro-muscular relaxation [which] is very remarkable” and, thereby, are better able to elicit swing. The racial dimensions of this statement and others similar to it in the academic discourse pertaining to swing are beyond the scope of this dissertation and will, therefore, not be included in this thesis.
propose that relaxation and vital drive are sensations of horizontal direction that manifest from listeners’ grouping of musical elements, as informed by performers’ subtle treatments and executions of tempos, timbres, vibratos, articulations, and, most importantly, timing; I propose that relaxation is perceived when elements in the performance suggest “completion of a present event (Hasty 122)” and that “vital drive” results when processes in performance enhance listeners’ expectation for closure (ibid., 122). Although Hasty does not explicitly relate his work to Hodeir’s notions of relaxation and vital drive, his assertion that performers can direct the listeners’ perceptions “either toward the completion of a present event or toward the prospect of a successor” (ibid., 122) underscores the performers’ ability to condition listeners to perceive certain groupings in the music which facilitate in setting up expectations that affects listeners’ perception of musical momentum.

While the differences between relaxation and vital drive (and Hasty’s somewhat similar completion or anticipation of a successor) are subtle, close listening to Miles Davis’ solo in “Blue in Green” and Charlie Parker’s solo in “Groovin High” illustrates two different sets of performance sensibilities that accentuate their differences. While Davis’ performance aptly enhances the feeling of what I would consider relaxation, Charlie Parker’s solo features treatments of various musical and performative parameters that intensify the perception of forward momentum in a manner resonant with vital drive. A survey of recordings such as these underlines the fact that although there are too many variables and methods in sound production and decay to make definitive rules on how to approach handling sounds, there are performance sensibilities and approaches that are effective in conveying the horizontal motion central to relaxation and vital drive in performance.20

“Relaxation” and “Vital Drive” in Performance of WAM

Although the terms relaxation and vital drive are rarely used in discourse pertaining to performing WAM, several empirical studies have highlighted how classical performers, too, exhibit roughly analogous methods of rhythmic management. Eric Clarke’s 1981 analysis, Nicholas Cook’s 1987 study, and Henry Shaffer’s 1995 article studied the relationship between

20 For more information on what performance sensibilities facilitate in enhancing listeners’ perceptions of “relaxation” and “vital drive,” consult Chapter Four.
notated musical structures and their realization in performances. While Cook measured performance timings of Glenn Gould’s and Helmut Walcha’s sound recordings of Bach’s Prelude in C major, Clarke and Shaffer digitally measured actual performances of Chopin’s Prelude in F# minor, Op.28, Beethoven’s Bagatelle in B-flat major, and Satie’s Vexation (Shaffer 19). These studies were designed to detect intentional deviations in the timing of performances, which Clarke labels “expressive deviations,” and to study how they correlate to the expressive markings on the manuscript and to the performers’ perception of musical structures (Clarke 5). Although musical samples used for the analyses differed, all three studies showed that performers not only were highly selective in which structural feature to accentuate but also showed variety of expressive contingencies, which were not explicitly notated in the music. For example, Cook’s measurements of note durations in sound recordings of Bach’s Prelude illustrated Gould’s tendency to elongate the beginning of each bar and Walcha’s propensity to build towards the second half of the bar to “obtain the desired impression of groupings” (Cook 262). Similarly, Clarke’s measurements of note timings in various performances of Satie’s Vexation showed the greatest deviation from notated durational values at structural boundaries; Clarke explains this phenomenon in stating, “progressive slowing towards the group boundary is followed by an acceleration away from it… in summary, these results show that at certain well-defined points in the performances of Vexations, changes in tempo result in changes in relative timing” (Clarke 13). Shaffer’s analyses of various timing tendencies in performances of Beethoven and Chopin further illustrated performers’ flexible approach to performing notated rhythms to “allow a fixed structure [the score] to be realized in a large number of different interpretations” through the impressions of various grouping strategies (Clarke 18). In sum, these studies highlight how even in the performance of WAM, flexible approaches to timing facilitate in the perception of horizontal motion akin to Hodeir’s notions of relaxation and vital drive. This suggests, further, that attention to rhythm management might offer an important way for classical performers to approach their interpretations of jazz-inflected compositions in a more informed way.

Simultaneity of Relaxation and Vital Drive in Jazz

Along with showing how timing and rhythmic executions indicative of relaxation and vital drive can supplement discussions about classical performers, the findings in these empirical studies illustrate that they interact to reinforce the harmonic blueprint within the performance of WAM.
As music theorist Lee Brown explains, “European music capitalizes upon meaningful alternations between tension and relaxation… [which] oscillates between movement and repose, between dissonance and consonance” (Brown 121). Interestingly, whereas Brown and other theorists assert alternation between tension/vital drive and relaxation in WAM, there is consensus amongst scholars that in jazz relaxation and vital drive exist simultaneously. Hodeir alludes to this in stating, swing “bristles with paradox…the analysis of a good work of jazz…reveals the coexistence of two characteristics that seem opposed to each other—an element of tension and an element of relaxation” (Hodeir 195). While Hodeir describes this attribute of swing as a paradox, Joyner describes it as swing’s “rhythmic duality,” and states, “swing is best defined as the superimposition of relaxation over tension” (Joyner 81). Similar to Hodeir and Joyner, Brown states, “tension and relaxation are perpetually bound together within a single structure” and that “swing is felt almost as a kind of need-to reconcile partly synchronous, partly asynchronous rhythmic lines…[and] embraces tension and release” in a single moment in time (Brown 122). What emerges from these descriptions is an idea that simultaneity of relaxation and vital drive rhythmic is a central attribute of swing. As Chapter Three will show, this elusive conjecture becomes an important detail in all the composers’ conceptualization of swing, and sound recording analyses in the later sections of this dissertation will provide further insights into the manners of rhythmic playing that are effective in conveying the simultaneity of relaxation and vital drive that is fundamental to swing.

**Conclusion**

Along with the apparent inadequacies in syntactically identifying swing, the fluid approach to performing notated rhythms, which Clarke calls “generative flexibility” (Clarke 18), further emphasizes the necessity of utilizing a swing-informed approach in the performance of swing-inflected WAM that equally takes into account the processual dimensions and the syntactical adaptations of swing. Even with Hodeir’s laudable efforts to unravel swing from a syntactical point of view, he acknowledges the limitations of doing so in stating, “to swing is an act… all the analyst can do is define what the phenomenon is made up of, or even, modestly, the circumstances under which it comes into being” (Hodeir 196). Similarly, Keil states, “syntactic

---

21 Given the contradiction of acknowledging the significance of swing’s performative dimensions and yet providing a predominantly syntactical perspective to swing, Hodeir’s decision to provide syntactical evaluation indicates a lack
evaluations do not really do the music [jazz] justice” (Keil 66). On the opposite end of the spectrum from Hodeir, musicologist Christopher Small proposes the term “musicking” not only to accentuate the reality that music ultimately manifests in the activity of music making rather than a notated manuscript, but also to shift the focus of musical analyses from music’s syntax to the process of grooving. Nevertheless, although approaches within the engendered feeling paradigm do offer a new theoretical framework to evaluating swing, they, on their own, are also insufficient in wholly explaining the swing phenomenon. As Keil explains, “something approaching complete comprehension of the processual aspect will only be possible when we are able to determine accurately the placement of notes along the horizontal dimension” (Keil 67). The placement of notes along the horizontal dimension of which Keil speaks clearly resonates with Hodeir’s notions of right infrastructure and superstructure.

Keil’s comment is particularly true of jazz-inflected concert pieces, which require the creation of swing within the framework of WAM. Although participatory discrepancy may be conceptually at odds with fidelity to the composers’ intent, empirical studies have been particularly effective in corroborating the assertion that even when the music is meticulously notated, there is still ambiguity in terms of how it should be interpreted and discrepancy in how it is executed. This problem is amplified when dealing with the selected compositions where swing, a sonic feature that cannot be conveyed through syntax, is referenced in the notation, and therefore, is part of the composer’s intent for the piece.

This, along with the limitations of notation for representing the subtleties of swing, suggests that listening to and trying to understand music of which swing is a foundational part of the desired sound, such as jazz and blues, and giving attention to the swinging music that each composer heard and that might have served as their point of reference for swing, could point players to more convincing performances. It also suggests, perhaps ironically, that such an informed approach to interpretation might bring performers closer to the composer’s vision for the piece even in cases where the execution must deviate from what has been specified in the notation.

of an appropriate theoretical framework. Furthermore, given the time of the book’s publication (1956) and his extensive musicological background, syntactical evaluations of music were most familiar not only to him but also to his contemporaries.
Chapter 2
Towards Understanding Ravel’s, Copland’s, and Bernstein’s Conceptualizations of Swing

Early Jazz and Bebop Influences on 20th and 21st Century Composers

The difficulty of pinning down a concrete definition of swing and expressing it in standard western notation as discussed in the last chapter is foundational to the challenge of performing Western Art Music (WAM) that references music such as jazz and blues from a stylistically informed place. The notion of a one-size-fits-all approach is rendered all the more problematic by fact that the music referenced in such compositions does not all sound the same despite being referred to as part of the same genre (that is, jazz or blues). This difficulty, however, can be turned into a virtue when approaching specific compositions such as those under consideration in this study: Ravel’s Violin Sonata No.2, Copland’s Ukulele Serenade and Nocturne, and Bernstein’s Serenade after Plato’s “Symposium.” Indeed, the ways that swing has been discussed suggests that a logical starting point for a swing-informed approach to interpreting these and other comparable pieces is to develop a sense of each composer’s particular conceptualization of swing and what it sounds like. Taking into account that jazz and blues are oral traditions, in which musicians learn to swing from participant-observer activities rather than reading, I suggest that a useful way to begin unpacking the ways art music composers conceptualize swing is to develop a sense of what kind of music and, in particular, what type of jazz or blues they might be referencing in their compositions.

With many variables, not the least of which is personal taste, this is an exercise in identifying a general approach to swing based primarily on the time period during which specific swing-inflected music was composed. Nevertheless, it is a worthwhile undertaking since the composers studied here would have encountered different approaches to swing during their lifetimes and because their music, accordingly, represents swing-inflected art music across several decades (and in different geographical locations). Ravel’s Violin Sonata and Copland’s Ukulele Serenade and Nocturne were composed in the 1920s in France and the United States, respectively, and Bernstein’s Serenade after Plato’s “Symposium” was composed in the U.S. during the 1950s. The purpose of this chapter, then, is to study how distinct types of swinging music from the
1910s to the 1950s, particularly jazz, could have influenced each composer’s particular conceptualization of swing, and then to discuss the ways in which each one appropriated it. This discussion is intended to set up later engagements with the methods used by each composer to notate the particularities of their own sense of swing (Chapter Three) and how these understanding might establish a swing-informed approach to performing these compositions (Chapter Four).

Along with laying the groundwork for Chapters Three and Four, discussions into the particularities of the jazz that was part of each composer’s soundscape will help provide a sense of what musicologist Randall Dipert calls their “high-level intentions” (Dipert 207). In his 1980 article “The Composer’s Intentions: An Examination of their Relevance for Performance,” Dipert proposes three different classifications of composer’s intentions: “low-level,” “middle-level,” and “high-level” (Dipert 206). Music philosopher Peter Kivy aptly summarizes Dipert’s discussion in stating, composers’

...intentions concerning means of production of sound will be termed low-level intentions, which include the type of instrument, fingering, etc. Middle-level intentions are those that concern the intended sound, such as temperament, timbre, attack, pitch and vibrato. Finally, we have high-level intentions, which are the effects the composer intended to produce in the listener. (Kivy 102)

Both Dipert and Kivy emphasize how performers must make informed choices in performance to negotiate these levels of composers’ intent. For instance, Kivy references performance of Bach’s Magnificat in D to illustrate the point that the use of the modern oboe rather than the oboe d’amore (of the Baroque era), which violates Bach’s “low-level” intentions, might be more effective in achieving the tone quality (“middle-level” intention) and the expressive effect on the listeners (“high-level” intention) he sought. Similarly, Dipert discusses how the use of electronic synthesizers in the performances of Mozart’s music to replicate the sounds of a fortepiano in Mozart’s time might help in realizing middle-level and high-level intent at the expense of his low-level intent. What emerges from their discussions is not only a particular hierarchy in the classifications of composers’ intent, but also some inherent challenges and, to their view, preferable ways of addressing them in performance. Although the “most reliable and extensive information” is available regarding composer’s low-level intents, realizing composers’ middle-
level and high-level intentions are more important in the music-making process because they ultimately determine how audiences respond to the music (Dipert 207). Following this logic, Kivy and Dipert both state that in conflicts between middle-level and high-level intentions, realization of composers’ high-level intentions “presumably… take precedence” (Kivy 102). As Dipert explains, “if we obtain reasons for following a composer’s intentions, we should follow first and primarily his high-level intentions. To do otherwise is to follow the letter and not the spirit of his intentions” (Dipert 208).

Within the context of performing and interpreting jazz-inflected compositions, Dipert’s and Kivy’s discussions on composers’ intent emphasize how having awareness of particularities of jazz in the decades relevant to each of the composers can be critical in allowing performers to realize the composers’ “high-level” intentions—namely, to convey a rhythmic feel akin to the swing that they heard. For this reason, the first logical step towards the development of a swing-informed approach is to analyze jazz sound recordings during each composer’s lifetime and to gain awareness of the most salient features of jazz performances that were foundational in each composer’s conceptualization of swing.

**Sound Recordings**

Given the difficulty of notating the subtleties of swing, sound recordings rather than lead sheets are the most effective, and in some instances the only type of historical documentation that can aid in the study of how swing’s particularities transformed over time. In stating that “jazz and the phonograph made a perfect match of medium and message,” musicologist Thomas Hennessey emphasizes the need for including the analysis of sound recordings in any comprehensive review of swing’s history. He adds that such study is especially important for the early years of this history since black popular music did not garner much musicological interest until much later.

Although sound recordings are critical in any research that aims to understand swing in a jazz or blues context, it is also important to consider their limitations and related implications for how they influenced these musics. Indeed, musicologist David Wondrich states that jazz in particular “grew up with the phonograph” (Wondrich 222). Yet, because the right to record was a privilege reserved for the very few, “many important artists and styles were not often recorded, leaving holes in our view of the jazz world” (Hennessey 32). Most notably, Buddy Bolden, named by musicologists such as Gunther Schuller and Paul Oliver as one of the key originators of
instrumental blues and the earliest pioneers of jazz, never recorded, leaving a critical gap in the early history of the genre. Another problem is that sound recordings only capture the improviser’s performance at one moment in time, possibly giving a skewed representation of not only the performer’s tendencies but also of the general aesthetics of swing at the time of the recording (especially, for example, in other locales or in the hands of other musicians); this latter point is especially relevant when determinative labels, such as “swing,” “jazz,” or “blues” are used in the title of a tune or the name of the band, but apropos of very different sounding music.

Along with the possibility of distorting or emphasizing some of the stylistic traits of the music, technological limitations of sound recording devices and methods should also be taken into account since they constrained performances and restricted what could, in fact, be captured. For instance, for sound recordings released at the turn of the century, the acoustical horn could only capture a small spectrum of recordable sounds and amplitudes, thus artificially homogenizing the sounds of early jazz bands. Hennessey discusses this, saying, “The acoustic processes of the pre-1926 period were very limited in picking up the high and low end of the sound spectrum of large variations in volume. This made it very difficult to record a full trap drum set, or a string bass. Also, the guitar used as a rhythm instrument was often too soft to be heard over the ensemble. As a result of these limitations, some bands limited drum use and began to use the banjo and tuba rather than the guitar and the string bass before 1926” (Hennessey 33).

Restrictions on instrumentation also had significant ramifications for early jazz bands’ sound concept and rhythmic feel. In particular, the breathing pattern on the tuba promoted the two-beat, or as Hodeir labels “stiff,” rhythmic feel of the early jazz bands (Hennessey 34). Furthermore, the absence of the hi-hat cymbal deprived the percussion section of its quintessential palette of sounds, which would become the “sound source” of the “swing pattern beat” in the latter 1920s and early 1930s (Budofsky 34). The exclusion of these two instruments marks one of the most obvious differences between jazz recorded before and after the 1930s.22

---

22 Hodeir’s anecdote regarding musicians critiquing Louis Armstrong’s earliest recordings with the Hot Five, which excluded the hi-hat cymbal and bass, aptly illustrates the implications of not having these instruments in the band’s instrumentation. Hodeir writes, “after hearing these records, a musician told me that he thought it impossible to play with real swing without the back of these two instruments, or at least one of them” (Hodeir 52).
Along with indirectly imposing certain restrictions on the rhythmic feel and varieties of sounds that could be captured, recordings confined the structure of tunes to two to three choruses. This is because the first 78 rpm phonograph disks were limited to three minutes of recorded music. In rare cases, limitations on recording time necessitated tempo changes so that the whole piece could fit on one record. For example, the rhythmic push in the Original Dixieland Jazz Band’s 1917 recording of “Livery Stable Blues” is speculated to have been the result of sound engineers manipulating the tempo of the recording to fit the material on the record and not necessarily reflective of the actual playing of the band (Wondrich 67). For these reasons, discussions of each composer’s concept of swing should also include analyses of literature pertaining to the general stylistic traits and performance tendencies of jazz performers during each composer’s respective time period.

**Selection of Sound Recordings**

From the extensive discography of jazz and blues, the following sound recordings were selected to situate the particularities of swing for each of the compositions in question. In discussing jazz influences in the *Blues* movement of Ravel’s Violin Sonata, sound recordings of James Reese Europe’s “St. Louis Blues” (1919), Louis Mitchell’s “Ain’t We Got Fun” (1921), and Bessie Smith’s “Downhearted Blues” (1923), will be reviewed to assess the underlying similarities among the recordings, which would indicate general styles in and approaches to swing prior to 1927 (the completion year of Ravel’s violin sonata). To study Copland’s conceptualization of swing and jazz as a whole, sound recordings of Zez Confrey’s 1922 tune “Stumbling” and George Gershwin’s 1926 tune “Fascinating Rhythm,” will be referenced. In similar fashion, sound recordings of Louis Armstrong’s “West End Blues” (1928), Coleman Hawkins’s “Body and Soul” (1939) and Dizzy Gillespie’s “A Night in Tunisia” (1945) will be analyzed to better deduce Bernstein’s interpretation and appropriation of swing. These sound recordings were selected based on the fulfilling of two, if not, all of these criteria: (1) temporal proximity of the recording’s release date to the completion date of the compositions; (2) critical acclaim and/or commercial success; (3) documentary evidence suggesting that certain jazz artists were significant influences on the selected composers.23

---

23 The “two out of three” clause in the choosing of sound recordings compensates for the scarcity of documentary evidence on jazz’s influences on Ravel.
Maurice Ravel

From 1923 to 1928, a period when the discourse of swing in relation to jazz was emerging, Maurice Ravel composed the “Blues” movement of his second Violin Sonata.\(^{24}\) Analyses of multiple artists and sound recordings serve to compensate for the limited literature on the particular jazz and blues that influenced Ravel during and preceding the composition of his Violin Sonata.\(^{25}\) Indeed, with the exception of his lectures at the “Contemporary Music” forum in March 1928 and “Take Jazz Seriously!” lecture at the Rice Institute in April 1928, only anecdotal accounts provide insights into Ravel’s views and understanding of this music and the notion of swing (Mawer 120).

Along with deducing the artists that could have influenced Ravel’s conceptualization of swing, discussion into how he attempted to capture it is also necessary in developing a swing-informed approach to interpreting his music. In his 1928 article “Take Jazz Seriously!” Ravel provides insights to his method of appropriating jazz in calling his music “stylized jazz, more French than American in character” (Mawer 124). Musicologist Deborah Mawer further elaborates on Ravel’s compositional process in describing Ravel’s two strategies of appropriating: “minute stylization” and “manipulation.” While “minute stylization” involves borrowing of stylistic elements foreign to Ravel’s own aesthetic and background, “manipulation” refers to the incorporation of stylistic elements into his individualized compositional style. These two processes are not mutually exclusive, but do operate to varying degrees depending on his (or any composer’s) intentions in referencing jazz elements. Complicating matters slightly is the matter of national identity in Ravel’s music. In his 1928 commentary in *Contemporary Music* he states, “my musical thinking is entirely national” (Mawer 125).\(^{26}\) However, despite Ravel’s emphasis on his French identity, his appropriation of jazz is not wholly achieved through “manipulation,” suggesting that discussions pertaining to jazz elements foreign to Ravel’s own aesthetic are

\(^{24}\) One of the earliest uses of the term “swing” in academic discourse was J. Sabastian’s 1925 article in the *Nation* magazine, entitled “From Spirituals to Swing.”

\(^{25}\) It is important to note that the term “swing-informed” is not intended to conflate jazz and swing. Instead, the term “swing-informed” is a gloss for a studied engagement with swing as a key aspect of jazz.

\(^{26}\) Quotes such as these give more credence to Mawer’s notions that Ravel “Gallicized Jazz” and “Ravelized jazz” (Mawer 136).
important in developing a swing-informed approach to performing the “Blues” movement of his violin sonata.

**Ravel’s potential swing influences: Smith, Mitchell, and Europe**

Despite the limited information available on which artists influenced Ravel, literature pertaining to Parisian nightlife and culture after the First World War sheds light not only on the role of jazz in France but also on the handful of musicians and bands who introduced the music to the French public. In the 1920s, jazz served as an ideal accompaniment to popular dances such as the foxtrot. Musicologist Jeffrey Jackson describes the mass appeal of jazz in stating, “all around Paris in 1920… musicians played jazz in music halls, dance halls, cabarets, nightclubs, bars, and restaurants” (Jackson i). To the French audience, jazz was defined by two basic attributes in performance: the presence of musicians of color and the use of drums. Most French listeners and critics agreed that jazz was music of black Americans, and therefore, musicians of color were deemed to be more authentic representatives of their history and music.27 Concerning the prominent role of the drums, Jackson states, “there was at least common musical meaning when people in France invoked the term “jazz”: it meant rhythm and the instruments used to make it. Above all, the drums—la batterie—were not only the most prominent instrument but their mere presence, many believed, made any band into a jazz band” (Jackson 29).28 Given the role of jazz as music predominantly for dancing and the Parisians’ perceptions of jazz in the 1920s, it can be deduced that Ravel’s conceptualization of swing and understanding of jazz was partly based on his exposure to the live performances often featured in the trendy nightclubs in the Pigalle district, which Ravel frequented with other members of the French intelligentsia.

Although Ravel was an intensely private person regarding his compositions, Mawer writes that he “enjoyed the Parisian nightlife, the conversations, the lights, the jazz, and the crowd” (Mawer 116). Given this information, it is not too far-fetched to speculate that Ravel’s exposure to jazz was in the nightclubs, such as the Casino de Paris. From 1910 to 1920, Louis Mitchell’s Jazz

---

27 The correlation between race and the notion of “authentic” jazz amongst the French public is made clearer by “the financial rewards for black musicians were often enhanced because their music was in demand thanks to their skin color. One observer told of white musicians receiving seventy-five francs a night while black players got five hundred” (Jackson 26).

28 This attitude towards the importance of the drums was common amongst critics. For example, in 1918, music critic Emili Vuillermoz described the drums as “the expressive organ of jazz” (Jackson 30).
Kings and James Reese Europe’s Hellfighters were among the biggest headliners at Casino de Paris and other fashionable Parisian nightspots. Europe and his Hellfighters were contracted in 1918 to give concerts in Casino de Paris as active duty members of the 369th infantry regiment of the U.S. Army and released recordings with the French recording company Pathé Records in 1919, becoming the first black band to have an exclusive contract with a record company. Similarly, Mitchell’s Jazz Kings, who Belgian critic Robert Goffin described in 1917 as the “big attraction for every Parisian theatre,” were the resident band at Casino de Paris from 1917 to 1922 and released fifty-five records with Pathé Records (Jackson 18). Although there is no definitive documentary evidence in literature to prove that Ravel listened to Mitchell’s Jazz Kings and Europe’s Hellfighters, Ravel’s frequent socializing at the Casino de Paris and the commercial success and recording output of these bands gives more weight to the assertion that the performance styles of these musicians played a critical role in influencing Ravel’s conceptualization of swing.

While live performances in the Casino de Paris and other nightclubs in the Pigalle district could likely have been a point of reference for Ravel’s understanding of jazz and his approach to notating swing, the availability of sound recordings during the 1910s and 1920s suggests that recordings might have been an even more accessible means of study. Since the recorded repertoire from this time is large and because the movement under study is entitled “Blues,” analyses of sound recordings will focus on period recordings of songs that contain the label “blues;” these include Bessie Smith’s “Downhearted Blues” and James Reese Europe’s “St. Louis Blues.” Of the two, a key point of reference is Bessie Smith’s 1923 recording of “Downhearted Blues,” which exemplifies some of the key stylistic traits of the vocal blues tradition that became defining performative traits in jazz.29 Selling more than three quarters of a million copies of “Downhearted Blues” alone, Smith was arguably one of the most successful and influential promulgators of the style. Eventually earning the title of “Empress of the Blues” from the press, her “dramatic, booming, rich, and full” voice helped in consolidating wide ranges

29 Although Mamie Smith and other active blues singers could have been included in this analysis, Bessie Smith was chosen for analysis due to her dominant role in “set[ting] the blues tradition in terms of style and quality” (Schuller 227). Furthermore, while Smith’s commercial success ensured her status as an exemplar of the vocal blues tradition, there were other styles of the vocal blues, such as the Delta and Piedmont blues, that featured performance sensibilities different from those of Smith. However, given Smith’s recording output, my analysis of the vocal blues will mainly feature her.
of sung material by everyday people into a distinct genre that was stylistically distinguishable from ragtime and jazz (Schuller 150).

Listening to Smith’s 1923 recording of “Downhearted Blues” immediately reveals a relaxed tempo and a percussive piano accompaniment that establishes a duple rhythmic infrastructure. Although this duple treatment of the pulse is not how swing would come to be defined, Smith accentuates a looser feeling of the pulse through her languid singing style, which features her signature inflections and glissandi on the “blue” notes. She clearly demonstrates these embellishments at 0:15 (sound clip #1) when she agogically emphasizes the text, “when that someone…”, which is maintained on the blue note of G-flat. Smith’s languorous feeling of the pulse is heightened by her unique vibrato, diction, inflection, and manner of emphasis on the note preceding the syncopation, which all enhance her “musical flow or swing” (Schuller 229, my emphasis). Cross-referencing the recording and the lead sheet (Figure 3) reveals that these syncopated effects and accentuations on the blue note of G-flat were reflective of Smith’s interpretation and artistry rather than markings on the lead sheet.30

![Figure 3. Bessie Smith’s “Downhearted Blues,” measures 9 to 11, corresponding to sound clip #1](image)

This approach to performing blue notes is demonstrated again at 0:29 (sound clip #2), further substantiating the assumption that Smith’s performance at measure 9 was not an isolated case but rather a common tendency in her performance. Tunes such as the “Downhearted Blues” brought some of the blues’ stylistic signatures, including, as noted by Schuller, swing, to a much wider audience and made them common features not only in the blues but also in jazz.

30 It is necessary to note that the lead sheet in figure 3 was published in 2014, well after the release of the record. This fact makes clear that Smith was not necessarily deviating from the score, but that notations are simply inadequate in capturing her stylistic tendencies and performance sensibilities.
While “Downhearted Blues” presents blue notes in a manner that is suggestive of swing, Europe’s 1919 recording of “St. Louis Blues,” which the Memphis Archives calls “the masterpiece of the Pathé sessions,” illustrates the Hellfighters’ explorations with swing’s rhythmic feel and aesthetics (Badger 70). Although close listening to the recording reveals rhythmic language that does not stray far from the template of marches, brief presentations of phrase rhythms, manners of accentuation, and the frequent presentation of jazz effects, such as trombone glissandi and vibrato, facilitate rhythmic feel and sonic qualities that help to drive the music forward.

At 1:33 (sound clip #3), the first of many trombone glissandi is showcased. Usually spanning a minor third, the glissando starts on the second beat of a measure and arrives on the blue note on the downbeat of the subsequent measure. Close listening to this and other glissandi reveals that the speeds of the ascents are not uniform, meaning that agogic emphasis is applied at the head of the glissando. The resulting effect of this treatment is that most attention is drawn to the glissando effect itself rather than to the destination note. Another example of such a glissando can be heard at 2:38 (sound clip #4), in which the clarinet presents an interpretation/improvisation of the melody that features a wide variety of articulations (or tonguing) and the brief materialization of phrase rhythms. Referencing the lead sheet (Figure 4) reveals that the syncopated clarinets reflect a total deviation from the notated instructions.31

31 Unlike figure 3, the lead sheet in figure 4 was published in 1914, well before the record, which was released in 1919. This fact suggests that players in the Reese’s band, the Hellfighters, were deliberately deviating from the score.
This interpretation, however, helps in creating a sense of rhythmic push towards the final cadence. Although the emergence of superstructure, which results from the misalignment between grouping and metrical structure, is only ephemeral, Schuller nevertheless asserts that “St. Louis Blues” demonstrates “Europe’s ability to take a polite saloon piece and make it swing - in a rudimentary sort of way” (Badger 58).

Although many jazz historians often retrospectively refer to the Jazz Kings as a ragtime ensemble, their name as well as the blurriness in differences between ragtime and jazz suggests that their performance styles are still reliable references for swing of the early twentieth century. Close listening to Jazz King’s 1921 recording “Ain’t We Got Fun” not only illustrates Mitchell’s indelible link with the ragtime traditions, but also presents his distinctive treatments of rhythms. The first verse of the tune, which lasts until 0:22 (sound clip #5) fits ragtime’s rhythmic template, featuring frequent usage of syncopations and the 2/4 metre common in marches. While the first verse does not present improvisations, the repeat of the chorus section starting at 1:01 (sound clip #6) includes greater degrees of melodic freedom and the emergence of Hodeir’s “right superstructures,” which result not only from the repeated two-note syncopations played by cornetist Crickett Smith but also from the trombone counterpoint played by Frank Withers. Similar attributes in performance are observed at 2:41 (sound clip #7), in which the trombone again enhances the sense of metrical asynchrony typically associated with swing. Further accentuating this particular rhythmic feel of the tune is the judicial use of what would become common jazz effects, such as trombone slides.
Along with exhibiting the fundamental characteristics of “right superstructures,” the recording of “Ain’t We Got Fun” reveals subtle methods of articulating to enhance the perception of certain grouping structures. The trombones at 1:46 (sound clip #8) illustrate the ways in which the pitch is played with a soft, portamento attack rather than articulated to heighten the anticipation for the preceding note. The “scooping” manner in which the syncopated notes are articulated “projects,” as Hasty described, certain anticipation for the succeeding aural events. While “scoops” provide a forward orientation in maintaining pulse, agogic accents, as observed in the trombones at 0:33 (sound clip #9), provide the opposite, pulling-back effect on the pulse. Analyzing the growl within the underlying rhythmic infrastructure reveals that the onset of the accentuation is slightly delayed. This creates the effect of marking another grouping structure, which emphasizes the placements of the agogic accent.

Analysis of lead sheets for “Ain’t We Got Fun” (Figure 5) reveals the notation of marcato ‘^’ rather than the accent marking: ‘>’, which may signify a manner of accentuation that involved the management of microrhythms to enhance the emphasis on the note (E-flat). This slight delaying of sound onsets achieves the sense of weight on beat three through the flagging of new grouping structure starting on the E-flat.

Figure 5. Louis Mitchell's “Ain't We Got Fun,” corresponding to sound clip #9

In conclusion, along with the elicitation of phrase rhythms, this sound recording illustrates how the articulatory styles used by musicians help to enhance the rhythmic “ebb-and-flow” feel of swing, reflecting Hodeir’s notions of “relaxation” and “vital drive.”

While the trombones present many subtle ways of accentuating and illustrate how they influence a certain pushing or pulling feel to the pulse, the trumpets demonstrate ways of eliciting grouping structures that misalign with the underlying metre. Cross-referencing the lead sheet (Figure 6)
with sound clips at 1:53 (sound clip #10) not only reveals the cornet’s tendencies in improvising
the first eight measures of the chorus but also illustrates the role of the repeated figurations in
eliciting grouping structures that are asynchronous to the underlying metrical structure.\footnote{It is necessary to note that the lead sheet in figure 6 was published in 2004, well after the release of the record. This fact makes clear that members of Mitchell’s Jazz Kings were not necessarily deviating from the score, but that notations are simply inadequate in capturing the details of their improvisations.}

Figure 6. Louis Mitchell "Ain't We Got Fun," corresponding to sound clip #10

At 1:53 it is especially clear how the emergence of “right superstructures,” in conjunction with
the trombone articulations and glissandi, helps to propel the music forward, demonstrating the
foundational element of swing’s vital drive.

These sound recording analyses show how jazz musicians contemporaneous to Ravel often
featured repeated figures and subtle managements of note durations, vibrato, and articulations to
enhance the sense of rhythmic movement in the music. Although to what degree Smith, Mitchell,
and Europe elicited swing in their performances may always be a subject of debate, it is clear
that their recordings documented performance sensibilities that were either deviations from or
individual additions to the written notations that were effective in enhancing rhythmic sensations
that are resonant with relaxation and vital drive. For this reason, I assert that their sound
recordings present key examples of early approaches to swing in performance and are, therefore, important references for understanding Ravel’s conceptualization of swing.

Aaron Copland (1900–1990)

Despite being exposed to jazz at an early age in Brooklyn, New York, Copland’s interest in jazz intensified during his studies with Nadia Boulanger in Paris from 1921 to 1924. Many historians consider his introduction to Boulanger the most important musical event of his life; experts on Copland, such as David Schiff, Annegret Fauser, and Howard Pollack, credit Boulanger as being the primary driving force in Copland’s development of “an assertive American identity” in so-called serious music (Fauser 538). Along with providing Copland the necessary guidance and words of encouragement, Boulanger spurred on Copland’s “rediscovery” of jazz by introducing him to music by European composers who had experimented with jazz rhythms and aesthetics in their own compositions. As musicologist Vivian Perlis writes, from his studies of these European composers, Copland “saw how to take up American jazz” into WAM contexts and, more importantly, recognized its potential in being a central component of an American aesthetic in Western concert music (Perlis 40). In his book Music and Imagination, Copland lists Debussy’s Golliwog’s Cakewalk (1908), Stravinsky’s Soldier’s Tale (1918), and Milhaud’s La création du monde (1923) as compositions that provided him the initial blueprints for his own strategies in appropriating jazz. Among them, Copland deemed Milhaud as “better than any other European” in demonstrating “how to assimilate the jazz idiom” (Kostelanetz 44).33 Similar to Milhaud’s La création du monde, Copland’s initial experimentations with infusing his compositions with jazz involved the extraction and the notation of jazz’s rhythmic features. In a manner akin to Mawer’s notion of “stylistic manipulation,” Copland strived to assimilate jazz into his own idiom and treated jazz as “raw material” for his compositional language. Copland’s 1926 article “Jazz Structure and Influence” elaborates on his initial attempts at appropriating jazz and provides insights into his attitude towards it.

“Jazz Structure and Influence” is Copland’s first published discussion of jazz. Despite the title of the article, Copland rarely discusses structural forms common to jazz and predominantly focuses

on its rhythmic dimensions, which, in his opinion, encapsulate its “essential character” (Copland 496). This understanding leads Copland to trace jazz’s development in terms of its rhythmic transformations from “Negro’s dull tom-tom in Africa” into the popular dances of 1920s, such as the foxtrot and the Charleston, which he considered to be the beginnings of “modern jazz” (Copland 496). Figures 7a – e present Copland’s own notations of the rhythms that typified the various stages of jazz’s rhythmic development; while Figure 7a and 7b present the syncopations that typified ragtime, Figures 7c through 7d present how rhythmic infrastructure as well as the nature of syncopations transformed to engender the foxtrot of the 1910s (Figure 7c) and the Charleston of the 1920s (Figure 7d).  

34 Copland further elaborates that along with the syncopations presented in Figure 7a-b, ragtime was identifiable through its 1-2-3-4 bass that placed emphases on beats 1 and 3, while the foxtrot, as presented in figure 7c, featured a rhythmic infrastructure which displaced the emphases to beats 2 and 4.
The most important aspect of Copland’s conceptualization of jazz rhythms is presented in figure 7d, in which he represents the reorganization of the syncopations in Figure 7c to feature asymmetrical division of the bar. As Figure 7d illustrates, the eighth notes in one measure of 4/4 (Figure 7c) is rebarred to imply a measure of 3/8 followed by one of 5/8. The imposition of these grouping patterns on a 4/4 infrastructure, as presented in Figure 7e, demonstrates the interplay of two independent rhythms within the space of one measure. Copland labels this rhythmic operation as “the molecule of jazz” (Copland 496). Akin to Hodeir’s notion of superstructure, Copland’s “molecule of jazz” entails “the organization of melodic patterns…[to] produce metrical strata that move in and out of phase with an unchanging, periodic, simple-metre accompaniment” (Kleppinger 75). In essence, in Copland’s view, the rhythmic characteristics of the Charleston presented the first signs of jazz’s polyrhythmic quality, which he deemed to be jazz’s chief influence on composers of WAM.
Examples of “Molecule of Jazz”

To corroborate his observations of jazz, Copland cites several jazz musicians that demonstrated his notion of “molecule of jazz.” Of the many choices that were available to him, Copland selects Zez Confrey (1895-1971), George Gershwin (1898-1937), and Paul Whiteman (1890-1967) to evidence his own interpretation and summary of jazz rhythms. As an example of jazz’s “molecule,” Copland cites Confrey’s “Stumbling” (1922). Figure 8 is the chorus section of the tune and displays the core qualities of Copland’s molecule of jazz.

![Zez Confrey’s “Stumbling”, measures 28-31, corresponding to sound clip #11](image)

The contour as well as the accent (on the low D) of the melodic line suggests a metre of 3/4 while the accompaniment, especially the bass line, establishes a 4/4 rhythmic infrastructure. In the article, Copland takes the liberty to rebar the melody, as demonstrated in Figure 9, to make the simultaneity of the metres or the “molecule of jazz” even clearer.

![Copland’s re-barring of the chorus section in Confrey’s “Stumbling” (Figure 8) to reflect his notion of a “molecule of jazz”](image)

Although no music of Whiteman is included in Copland’s text, he cites Whiteman to justify some of his observations on jazz rhythms, implicitly giving Whiteman the status of authority on the subject of jazz.

The displacement of the accents to beats two and four in Copland’s rendition of the chorus may be result of the sound recording Copland used to transcribe the melody.
A similar rhythmic procedure is observed in Gershwin’s 1924 “Fascinating Rhythm,” which Copland describes as “not only the most fascinating but the most original jazz song yet composed” (Copland 496). Again, Copland’s molecule of jazz is most evident in the chorus section in which the grouping of the melodic line spans seven eighth notes, only aligning with the underlying infrastructure at the start of the next phrase in measure 9. Figure 10 illustrates this misalignment between the metrical and melodic grouping structures; while the red line marks the boundaries of melodic groupings, the blue lines serve to mark the metrical structures underneath.

![Figure 10](image)

As Figure 10 illustrates, from the beginning of the chorus section, the metrical and melody groupings do not align until measure 9, which marks the first repeat of the theme. In sum, these musical examples make clear that the layering of various melodic groupings on top of a regular metre is central to Copland’s polymetric conceptualization of jazz.

Analyzing Gershwin’s 1924 recording of “Fascinating Rhythm” and Billy Murray’s 1922 recording of “Stumbling” demonstrates how this rhythmic operation engenders propulsive, rhythmic feel akin to vital drive. At 0:33 of “Stumbling” (sound clip #11), the superimposition of

37 Although the blue lines indicating metrical structures may seem redundant given the bar line in this example, later figures in this chapter present music in which the metrical structures do not necessarily align with the bar line.
3/4 on a 4/4 rhythmic accompaniment (as proposed in Copland’s analysis) helps to propel the music forward until the third measure of the chorus in which the melodic and grouping structures synchronize (see Figure 8 above). Similarly, at 0:37 of “Fascinating Rhythm” (sound clip #12), the misalignments between the 4/4 accompaniment and the melodic groupings in conjunction with the accents heighten the sense of linear flow until the repeat of the main theme. The effectiveness of this rhythmic procedure is especially apparent in measure 8 or sound clip #12 where the accented downbeat, which would traditionally function to reinforce the metrical structure, does not flag a new grouping structure; cross-referencing the sound recording with the score reveals that the misalignments between the metrical and melodic groupings preceding the downbeats in conjunction with the melodic movement in beat two of measure 8 not only help to weaken the gravity of the downbeat but also provide forward momentum towards the repeat of the motif in measure 9. In short, both sound recordings illustrate how the syntax of jazz rhythms imply the vital drive dimension of swing, invoking a swing-informed approach that would serve to accentuate the propulsive feel inherent to Copland’s rhythmic notations.

**Sorting Out the Contradictions**

Copland’s formulaic approach to explaining jazz rhythms and referencing of Confrey and Gershwin as support for his conclusions make clear that his observations of jazz are at the very least skewed, if not “scandalously inaccurate” (Schiff 16). Delineating the complexities of jazz rhythms into one notation, Copland’s syntactical approach avoids the term “swing” and in turn neglects its processual dimensions. As a result, his analysis and understanding lack attention to one of the key aims of jazz rhythms and their resulting effects (i.e. generating swing). While Copland’s particular strategy for explaining jazz does present its rhythmic characteristics in a way that is more accessible, his explanations highlight “pigeon-hol[ing] of jazz into a type of commercial music that could be reduced to a single rhythmic device” (Schiff 16). Indicative of Copland’s Eurocentric views is his suggestion that the molecule of jazz is the “constant misfit of melody and harmony and the clash of metres and accents.” This statement is more reflective of Stravinsky’s assessment of jazz practitioners in the early 1920s.38

---

38 For Stravinsky’s assessment of jazz rhythms consult Chapter One.
Copland’s choices in musical examples also raise the necessary question as to why he only based his understanding of jazz on “symphonic jazz and Tin Pan Alley adaptations of jazz by whites” (Reed 8). Given that he was a resident of New York City during a period when the modern sense of swing was materializing in the performance styles of Louis Armstrong, among others, it is indeed very odd that Copland’s explanations of jazz were based on the sheet music of popular songs and novelty rags rather than sound recordings and performance styles of jazz artists who were active during the time of the article’s publication.

More importantly, Copland’s oversimplification of jazz’s complex rhythmic attributes and seemingly deliberate disregard for African-American jazz artists reflect a negative attitude towards jazz that is discernible throughout his article. Along with tracing jazz’s beginning to “some Negro’s dull tom-tom in Africa,” Copland insistently relegates jazz to the realm of commercialism and stresses his status as a “serious” composer in an effort to authenticate his observations (Copland 496). Ironically, in his efforts to distinguish and distance himself from the jazz community, he mitigates his authority on the subject.

Copland’s attitudes in his 1926 article might give the impression that an attempt to apply a swing-informed approach when interpreting his notations is misguided. However, later writings on Copland and his work provide evidence that he was not only well aware of the rhythmic innovations pioneered by both white and African-American jazz artists during the 1920s but also intent on conveying through his notations the performative traits indicative of swing. Despite his 1926 article’s emphasis on the syntax of jazz rhythms, Copland’s description of jazz rhythms as provoking “jerky motions” and “peculiar excitement…unprecedented in occidental music” does hint at his awareness that there was something beyond the rhythms themselves that was in part responsible in eliciting listeners’ visceral responses to jazz (Copland 497). Thus, while he omits explanations on swing, he seems to recognize its importance or at least its existence, not only for jazz musicians and listeners, but for himself as well. This, I believe, provides justification for interpreting Copland’s notations in ways that take into account the subtle details of swing’s processual dimensions—in other words for embracing a swing-informed approach to interpreting his music. Providing further support for my contention is musicologist Schiff, who states, “Copland’s relation to jazz appears quite differently in his compositions and in his critical writings,” asserting that the intricacies of the composer’s notations contrast his oversimplified prose descriptions of jazz (Schiff 16). Other musicologists, such as Norman Wika, have also
suggested that Copland’s notations in compositions preceding the article’s publication allude to swing. In his dissertation titled “Jazz Attributes in Twentieth-Century Western Art Music: A Study of Four-Selected Compositions,” Wika mentions swing in his analysis of Copland’s 1924 composition *Music for Theatre* and adds that attempts to convey swing in his notations were not uncommon in Copland’s jazz-inflected compositions that preceded his 1926 article; Wika writes, swing is “…the uneven weighting of the eighth note. Copland would have been aware of this and included it in several places in the score” (Wika 48). Lastly, in a post-concert discussion as part of the Composers’ Forum-Laboratory Copland himself stated: “I have been interested in the new swing music where musicians ‘let themselves go’ a bit. The effects are what I was trying for in 1926” (Copland 1937 in Oja 404). Although this statement pertains to Copland’s *Piano Concerto* (1926), it does at least highlight his awareness of performers’ role in eliciting swing and provide evidence that his notations of jazz rhythms invoke performance sensibilities that rely on subsyntactical processes beyond his molecule of jazz. Thus, these sources provide some weight to the assertion that despite the problematic conceptualization of jazz rhythms expressed in his 1926 article, the application of a swing-informed approach in performing and interpreting Copland’s two jazz violin pieces, the *Nocturne* and *Ukulele Serenade*, might in fact be an effective way to achieve Copland’s intended aesthetic.

**Leonard Bernstein (1918 – 1990)**

To study Bernstein’s notation of swing, it is useful (and possible) to refer to his own published materials that discuss his attitudes towards jazz and conceptualizations of swing. Unlike Ravel, Bernstein produced several essays and television broadcasts on the subject of jazz. His 1939 Harvard thesis titled “The Absorption of Race Elements into American Music” was the first of many writings that laid out the philosophical foundations for his life-long endeavour to form an American strain in “serious” music.39 His approach to establishing an American style involved the assimilation of American “folk” elements, which for him, included jazz.40 To Bernstein, jazz’s rhythmic features offered the ideal musical material to develop not only his own but also America’s unique musical identity. One-third of his sixty-three-page thesis focuses on rhythm,

---

39 The use of the term “serious” to refer to WAM is seen in many of Bernstein’s writings and suggests his binary view of jazz and classical music: jazz being popular music and WAM being serious, art music.

40 Along with jazz, he deemed Protestant chorales and Native American chants to be indigenous to North America.
“in particular African-American rhythm(s),” which Bernstein argued, “provide the central clue to the problem of American musical identity” (Block 53). The notion that African-American rhythms typifying jazz provide fertile grounds for the germination of a unique American style is a prevalent theme in many of Bernstein’s interviews and lectures. Along with his thesis, transcriptions of his interviews, such as the 1947 article “Has Jazz Influenced the Symphony?” in Esquire’s Jazz Book, and his telecasts, The World of Jazz (1955) and Jazz in Serious Music (1959) present his interpretation of swing and reiterate his attitudes towards jazz as being foundational to an American style in so-called serious music.

In explaining the processes involved in establishing an American aesthetic in Western Art Music, Bernstein alludes to musicologist John Dewey’s notions of “material” and “spiritual.” While “material” refers to the identification of musical elements unique to a particular region or country, “spiritual” pertains to the integration of these folk elements, or “material,” into an aesthetic that is unique and distinct enough to be given a label of some sort. Regarding “spiritual” Bernstein explains, “the folk materials resolve themselves into a cogent and authentic art; the metamorphosis from ‘material’ to ‘spiritual’ begins, where the folk material begins to permeate the whole of a composition, so that the entire piece sounds typical of the country” (Bernstein 37). This notion of “spiritual,” in effect, lays out the philosophical underpinnings that Bernstein’s uses of jazz exhibit “an organic component of his style, inseparable from his musical idiom” (Helgert 34). As examples of “spiritual” works, Bernstein presents George Gershwin’s *Rhapsody in Blue* (1924) and Aaron Copland’s *Piano Concerto* (1926) and lauds their efforts to infuse European techniques of polytonality and counterpoint with jazz and their success at reconciling the “banal harmonies of jazz” into a more advanced style (Bernstein 57). In Bernstein’s opinion, Copland’s *Piano Concerto* was more successful than Gershwin’s *Rhapsody in Blue* in demonstrating the concept of “spiritual;” regarding Copland’s concerto, Bernstein states, “the harmony [in the concerto] is mainly triadic, but polytonal, so that the harmonies arising from the Negro scale can be kept intact, while at the same time Copland’s own idiom is ensured… the banality [of jazz harmonies] is removed very subtly by the imposition of suggestions of other harmonies above the progression” (Bernstein 57). To Bernstein, the blues scale, which he refers to as the “Negro” scale, was too restrictive and prone to stereotyping. In his view, this made it susceptible to simplistic appropriation into WAM, a less interesting use, which Bernstein felt Gershwin demonstrated in his *Rhapsody in Blue*. Bernstein’s statement that
Gershwin’s use of jazz was “ultimately doomed to conservatism” indicates his less favourable outlook on *Rhapsody* and the method of appropriation the piece represented (Block 57).

Along with presenting his preferred methods of utilizing jazz harmonies, Bernstein’s thesis includes his analysis of jazz rhythms, which he deemed to be the “first tangible indigenous” musical element of America (Bernstein 88). This writing helps in clarifying the type of swing that could have been his primary source of inspiration and highlights the rhythmic dimensions that he observed to typify it. His discussions of jazz syncopations suggest that the type of jazz most closely associated with his musical tastes was that of the Swing Era in late 1930s and that of the Bebop era in the early 1940s; Bernstein explains, “The post war (twenties) kind of jazz (which is now deplored as “corny” by our present swing authorities) seems to have been at fault for being too obvious, that is, putting the accent where it would naturally come —on the syncopation whereas present-day jazzmen let the syncopation slip by unaccented, thereby creating an unexpected and satisfying effect: This is good taste.” (Bernstein 70)

Along with reiterating Hodeir’s criticisms of the earliest jazz musicians’ placement of articulations and accentuations as “corny,” this quote presents Bernstein’s opinion that the swing concepts of his contemporaries were clearly “more advanced” than those of the previous decades (Helgert 41). Bernstein elaborates on this opinion in his 1955 telecast The World of Jazz in which his explanation of syncopations includes descriptions of the syncopated manner of feeling the pulse that became central to the performance practices of jazz artists during the Swing Era. Referring to the accenting of beats two and four in each measure in a 4/4 metre as the “basic fact of syncopation,” Bernstein reveals that his conceptualization of jazz’s rhythmic characteristics was partly based on tendencies of soloists such as Louis Armstrong, who standardized this syncopated approach in feeling the pulse (Bernstein 104).

Although Bernstein’s initial exposure to jazz is documented in many biographies of him, there are neither explicit indications of one particular jazz artist as being an overwhelming influence on his conceptualization of swing nor writings that address how Bernstein notated it. An overview of Bernstein biographies also suggests that his absorption of jazz was not especially deliberate and that he was comfortable with being a dual citizen of classical music and jazz (Dickinson 14). This comfort is evidenced and informed by the fact that in his early twenties, while he studied at the Curtis Institute of Music, he often played in a band, The Revuers, that
performed, among other things, jazz. Musicologist Helgert explains, “Bernstein’s work with The Revuers was an important experience. It gave him the opportunity to perform popular styles of music and genres related to musical theatre, both of which played prominent roles in his career as a composer of concert works and musicals” (Helgert 84). Along with his experiences with The Revuers, from 1942 to 1943, he even worked for publishers in Tin Pan Alley transcribing and arranging solos of some of the jazz greats, such as Coleman Hawkins and Louis Armstrong. Although the years prior to his ascension to prominence are given little attention in his biographies, it is safe to assume that these experiences performing and transcribing jazz not only exposed him to the performative tendencies of some of the greatest jazz artists, but also helped him to learn “Tin Pan Alley techniques from the bottom up, sheet music to score” which aided in giving his later compositions, such as the Prelude, Fugue, and Riffs (1949) and Serenade (1959), their distinguishable, jazz-influenced sound (Shapero 53).

Bernstein’s Potential Jazz Influences: Armstrong, Hawkins, and Gillespie

As mentioned above, Bernstein never indicated any one particular jazz artist as the basis for his approach to swing. For this reason, I will analyze several sound recordings dating from the 1930s to the 1940s that, based on information about him and the jazz produced at the time, are logical choices for representing Bernstein’s likely jazz influences. Focusing on the more stable aspects of swing during Bernstein’s formative years, I believe, points to the foundations of his conceptualization of this elusive, but key, approach to rhythm. Although primary and secondary sources on Bernstein have suggested the primacy of Louis Armstrong and Coleman Hawkins in shaping Bernstein’s approach, notations in his jazz-inflected works are also suggestive of processual dimensions of swing that were not prevalent until the latter half of the 1940s. For instance, Bernstein’s Serenade (1959) is much more polyrhythmic than jazz of the early 1930s and features rhythmic operations that are typical of 1940s Bebop as exemplified by artists such as Dizzy Gillespie (1913–1993) and Charlie Parker (1920–1955).

Despite the completion date of the Serenade being well after the apex of Hawkins’ and Armstrong’s careers—and the evidence of bebop’s influence as well—these musicians’ impact on swing’s historical trajectory and the widespread embrace of their performance tendencies by the subsequent generation of jazz musicians necessitates discussions of their indelible mark on jazz, some of which also became defining features in Bernstein’s conceptualization of swing. In
terms of recording output and media exposure, no jazz artist of the 1930s enjoyed more success and limelight than Armstrong, who musicologists and historians deem as “the first great jazz soloist” (Walser 73). In addition to playing a critical role in transitioning jazz from a form of ensemble music rooted in polyphonic, group improvisation to a practice that featured solo improvisations, typically with ensemble accompaniment, his rhythmic feel, note choice, and phrasing were the most defining and influential qualities of his performances. Regarding Armstrong’s 1928 recording of the “West End Blues,” British critic Max Harrison commented, “Armstrong is now at his most modernistic, the music shaped by a hard, clear virtuosity and full of complex ensembles, furious spurts of double-time, unpredictable harmonic alterations and rhythmic jugglery” (Shaw 25). Similarly, Hodeir unabashedly compliments his virtuosity, hailing him as “the rhythmic genius of the Negro American people” (Hodeir 212). Schuller offers a more critical and balanced praise in stating that Armstrong’s sense of swing not only exhibited “sureness of [notes’] placement in the time continuum” but also demonstrated nuanced approaches to attack and release, which induced critics to discuss the earliest notions of solo virtuosity within the contexts of jazz.

Close listening to Armstrong’s “West End Blues” clearly showcases the virtuosity that made his playing so influential and popular. Deemed by musicologist Robert Walser to be “the most praised solo in all jazz,” the improvised opening of the song from the beginning to 0:15 (sound clip #13) primarily features Armstrong, signaling a divergence from the collective improvisation that epitomized the ensembles of the preceding decades (Walser 314). As critic Martin Williams

41 Starting with his 1926 recording of “Muskrat Ramble” with his band, the Hot Five, many of Armstrong’s recordings reached the Top Ten charts, which ranked musicians based on their record sales on major record labels such as Brunswick Records, Victor Talking Machine Company, and Columbia Records. Review of the Top Ten charts from 1926 until 1936 reveals that Armstrong’s record sales regularly placed him in the Top Ten; to name a few, “Hotter Than That” (1928), “West End Blues” (1929), “Ain’t Misbehavin’” (1929), “Chinatown, My Chinatown” (1932), “You Can Depend on Me” (1932), “All of Me” (1932), “Love, You Funny Thing” (1932), “Sweethearts on Parade” (1932), “Body and Soul” (1932), “Hobo” (1933), “You Can’t Ride This Train” (1933), “I’m in Love” (1935) were all placed in Top Ten in their respective years. Of the listed recordings, “West End Blues” (1929) became one of the first recordings to be inducted into the Grammy Hall of Fame in 1974, and “All of Me” (1932) was Armstrong’s first number one hit, enjoying the helm of the U.S. charts for 18 weeks.

42 According to musicologist Arnold Shaw, Armstrong’s recordings of “West End Blues” and “Basin Street Blues” (1929), among others, with pianist Earl Hines (1903–1983) and drummer Zutty Singleton (1898–1975) represent a pivotal moment in jazz history in which jazz inescapably became a soloist’s art (Shaw 35).

43 Along with Armstrong’s ability to place notes, Schuller attributes Armstrong’s distinction in jazz history for his choice of notes, quality of tone, varied vibrato and shakes (Schuller 91).
describes, this opening cadenza presents “Armstrong’s power, sureness, firmness, authority, [and] commanding presence” (Walser 316). From the first note, Armstrong features and sustains pitches outside the trumpet’s normal tessitura and presents two phrases which fall and climb through whole-tone scales, chromatic-ascending triplets, arpeggios, and minor-third descents. As Walser asserts, the symmetrical contour of the melodic line as well as the interdependent characteristic of the two phrases exemplify notions of “organic unity,” which have most often been used in describing the architectonic qualities of Western art music compositions. Along with Armstrong’s logical construction of the cadenza, Schuller emphasizes how aptly the solo summarizes the quintessential elements of swing in stating “these notes as played by Louis – not as they appear in notation—are as instructive a lesson in what constitutes swing as jazz has to offer… the way Louis attacks each note, the quality and exact duration of each pitch, the manner in which he releases the note, and the subsequent split second silence before the next one—in other words, the entire acoustical pattern—present in capsule form all the essential characteristics of jazz inflection” (Schuller 116). For Schuller and many other jazz scholars and critics, this cadenza illustrates Armstrong’s central role in advancing jazz’s primary rhythmic concept to the type of swing most widely embraced today.

Along with the cadenza, Armstrong’s call-and-response with clarinetist Jimmy Strong from 0:15 to 0:51 (sound clip #14) illustrates his command in placing notes that facilitate the creation of vital drive. Simply tapping along with the sound clip reveals that Armstrong rarely synchronizes with downbeats of the 4/4 rhythmic infrastructure, which is maintained in the piano. In most cases, his melodic “calls” start on the up-beat of beat 4, creating an anacrusis that obscures the succeeding downbeat. In numerous other instances, Armstrong starts his phrase on beat 2, thereby avoiding the down beat altogether. This tendency of weakening the weight of the downbeat assists in accentuating the listeners’ anticipation of a rhythmic consonance or metrical alignment and projects a linear flow to the line. Ironically, while the rhythmic feel of the solo clearly alludes to Hodeir’s notions of relaxation, the placement of his notes gives a sense of propulsion that maintains the movement of the line. Simultaneity of relaxation and drive return from 2:32 to 2:58 (sound clip #15) in which Armstrong not only elicits secondary metrical structure with the repeating four-note figuration starting on the B-flat, but also showcases manners of inflecting and articulating that suggest the laid back feel of the blues. Armstrong’s management of the pulse, creation of phrase rhythms, and placement of notes illustrate why his
rendition of “West End Blues” remains one of the seminal sound recordings in jazz history.

Whereas Armstrong’s rhythmic dexterity and originality may be his greatest contribution to jazz, Coleman Hawkins lent the music numerous harmonic innovations. Musicologist Scott DeVeaux describes Hawkins’s “harmonic improvisation” as “the practice of deriving notes for an improvised line from the underlying chord progression” (DeVeaux 78). This approach to improvisation not only helped to diversify the harmonic language of jazz, but also contributed to the rhythmic drive/relaxation of the improvised lines. The technique is rooted in the idea that all types of dissonance, whether harmonic or rhythmic, heighten the sense of forward momentum that results from the listeners’ expectation for an imminent resolution. DeVeaux explains the implications of harmonic dissonance on rhythmic drive in stating, “properly handled, harmonic improvisation is a subtle but essential component of the rhythmic momentum in jazz usually known as swing” (DeVeaux 78). Such use of chromaticism to enhance rhythmic flow is aptly exemplified in Hawkins’ most celebrated tune, his 1939 recording of “Body and Soul.” At cadential points, Hawkins’ band frequently swaps V7 with a ii^b7, presenting one of the first examples of tritone substitution in jazz. Figure 11 presents an example of tritone substitution during Coleman’s solo:

![Figure 11. Scott DeVeaux's transcription of Coleman Hawkins' "Body and Soul," mm. 10–11, corresponding to sound clip #16](image)

In measure 10 or 0:15 on the sound recording (sound clip #16), the E-double flat in the bass would be the lowered second degree in the key of D-flat major. Although ii^b7 chord does not share all the pitches with the dominant chord [Ab7], pitches that they do share [C and G-flat] form the tritone which, DeVeaux describes as “the working parts of the dominant seventh chord
[which] resolve strongly resolve to chord tones in the tonic harmony” (DeVeaux 105). Close listening to 0:10 of sound clip #16 reveals how the passing note of E-double flat (root of the ii♭7) in the bass facilitates in propelling the melodic gesture towards the cadence on D-flat. Although the use of dissonant chords around cadential points was not new in itself, Hawkins’ and his band’s strategic use and understanding of harmony to aid in rhythmic feel was a signature mark that carried over to jazz musicians of the Bebop era, who further diversified jazz’s harmonic language and experimented with the rhythmic concept of swing.

The eventual demise of big dance bands as the dominant form of jazz in the 1930s and the advent of small combos during the 1940s allowed jazz musicians to further elaborate upon Armstrong’s and Hawkins’ achievements. Unlike the big bands in which multiple instrumentalists were assigned to each part, bebop featured small combos. For example, quintets consisting of trumpet, bass, piano, saxophone (alto or tenor), and drums were especially common. Without the need to play in unison, ensemble members were freer to experiment in performance than they had been in the big dance bands. More so than any other dimension of jazz, these musical freedoms catalyzed experimentation in rhythms which can be best understood through the study of how drumming styles evolved during the Bebop era.

Coinciding with the standardization of the modern drum kit, the drummers of the 1940s experimented with “coordinated independence,” which refers to the drumming technique of “produc[ing] four different rhythmic layers” (Owens 180).44 Although “Cozy Cole was the first drummer noted for playing four different rhythmic figures simultaneously,” many of the great bebop drummers, such as Kenny Clarke (1914–1985), Art Blakey (1919–1990), and Max Roach (1924–2007), to name a few, utilized and elaborated on “coordinated independence” in performance (Budofsky 35). Such complex, virtuosic, and interactive drumming helped to weaken the traditional notion that the drums mainly functioned to keep time. Unlike the 1930s in which drummers were more prone to providing steady streams of quarter notes and coinciding the cymbal and snare drums with the four to eight-bar phrase structures of the melody, bebop drummers utilized the bass drums much less frequently and “adapted their punctuations to the

44 “By the 1940s, the typical drum set consisted of bass drum, snare drum, one to three tom toms, high hat, and one to three suspended cymbals of various diameters and thicknesses. This basic set has undergone only minor alterations during the past 50 years” (Owens 179).
melodic lines of the ensemble or soloists” (Owens 181).45 The gradual removal of the bass drum as time-keeper marks a significant shift not only in drumming style but also in the rhythmic aesthetic of jazz towards a more polyrhythmic language that diverges from the infrastructure of 1920s and 1930s discussed by Hodeir. Regarding this tendency of 1940s jazz, Hodeir states, “compared with the rhythmic language of the Swing Era, bebop infrastructure is characterized by three notions: decomposition of the beat, disintegration of the rhythm section, and non-continuity” (Hodeir 218).

Close listening to 1945 sound recording of “A Night in Tunisia” featuring Dizzy Gillespie, Charlie Parker, and Max Roach presents some of these distinguishing stylistic markers of Bebop. During Parker’s alto saxophone solo from 1:14 to 2:52 (sound clip #17), the drums and piano feature scattered accents offering a rhythmic counterpoint to Parker’s improvisation while the bass maintains the dual role of signalling harmonies and keeping time. To a certain extent, examples of Hodeir’s “decomposition of the beat” is clear in Gillespie’s solo; from 5:47 to 5:52 (sound clip #18). Roach offers rhythmic counterpoint, which obfuscates the sense of underlying rhythmic infrastructure and creates a sense of rhythmic and metrical ambiguity that heightens the sense of expectancy for metrical realignment. This excerpt not only demonstrates how the underlying structure is implied rather than explicitly laid out but also indicates how Gillespie implicitly understood the infrastructure. Gillespie maintains a swing feel and is able to remain in sync with the ensemble despite the more fluid accompaniment; Hodeir explains, “Gillespie’s and Parker’s most astonishing solos reveal that these musicians ‘understood’ the four beats even when the accompanying section seems to be disregarding them in the background” (Hodeir 221). As exemplified in the sound clips, the obfuscation of the infrastructure, the rhythmic flexibility of the ensemble, and the establishment of an implicit underlying infrastructure were some of the most defining attributes of Bebop that also became absorbed into Bernstein’s conceptualization and notation of swing.

---

45 Different drummers had their distinctive style of playing. While Kenny Clarke’s style reflects this tendency of Bebop drummers, the same generalization does not aptly describe Max Roach’s playing which was much more aggressive and frequently featured the bass drums on beats 2 and 4 of each measure.
Conclusion

This chapter presented analyses of jazz sound recordings to provide insights into each composer’s particular conceptualization of swing. The purpose of connecting jazz sound recordings with each of the compositions was to identify traits in jazz performance that were central to the concept of swing in each composer’s respective time periods. Chapter Three will examine how each composer conveyed the performance sensibilities and the rhythmic particularities through the limited means of notation and set up discussions on a swing-informed approach in Chapter Four.
Chapter 3
Notations of Swing by Western Art Music Composers

While Chapter Two examined the aesthetics of swing particular to each composer’s time period and presented each composer’s basic strategies for incorporating it into their compositional style, in this chapter I explore how each composer notated it. In the case of Ravel, I present score samples that exemplify his methods of: “manipulation,” and “minute stylization,” and I examine how his notations not only suggest the elements of swing that were common to the era, but also allude to Hodeir’s notions of vital drive and relaxation as presented in Chapter One. Similarly, for Copland, my analysis of his notations will illustrate how his molecule of jazz is incorporated into his rhythmic constructions in his Nocturne and Ukulele Serenade to convey simultaneity of vital drive and relaxation. Given Bernstein’s “spiritual” use of jazz elements in which they became “an organic component of his style, inseparable from his musical idiom,” I have supplemented my analysis of the “Socrates: Alcibiades” movement of his Serenade with analysis of another of his jazz-infused compositions, Prelude, Fugue, and Riffs, to identify jazz elements and suggestions of swing that were common to both pieces (Helgert 34). In short, this chapter aims to identify each composer’s notations of swing and examine how their notations may be suggestive of attributes of swing not only particular to each composer’s time periods but also indicative of dimensions of swing mentioned in Chapter One.

Ravel’s ‘Manipulation’ of Jazz

As discussed in Chapter Two, “manipulation” involves developing a compositional style by borrowing of stylistic elements foreign to the composer’s own aesthetic and background in a manner that privileges his or her sensibilities over the precise characteristics of the sources. (Mawer 125). Examples of Ravel’s manipulation of jazz are evident in his use of “blue” notes (the lowered 3rd and 12th) within bitonal contexts and his modification of the 12-bar blues form.

46 My analysis is based on published scores rather than the original, hand written manuscripts, which, as Mark Fewer pointed out, might offer additional insight into how the composers sought to evoke swing through their notation. However, most performers playing this music will use published scores, thus adding an additional layer to our understanding of western notational practice’s limitations related to edited and mass produced scores and editions.
Commonly referred to as “blue-note complex,” the presentation of the blue notes within a bitonal context allows blues notes of one key to resolve into the blue note of another key.\textsuperscript{47} For example, in measures 17 to 18 (Figure 12), the C-flat to B-flat gesture in the violin can be viewed as movement away from the blue note, C-flat, in the key of A-flat major or as movement towards the blue note, B-flat, in the implied key of G major.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image}
\caption{Violin Sonata No.2, second movement, mm. 15 - 18 (Ravel), demonstration of “blue-note complex” in measures 17 to 18}
\end{figure}

Within the contexts of A-flat major and G major, the semitone gesture downwards highlights blue notes in each key, thereby reinforcing both harmonies. While experimentations with bitonality had become common in art music of the early 20\textsuperscript{th} century, it was not a common technique in jazz of that era.\textsuperscript{48} Thus, Ravel’s presentation of the “blue-note complex” illustrates Ravel’s appropriation of jazz concepts in ways that are more reflective of his individual compositional style than jazz. Along with Ravel’s use of blue notes, his modification of the standard 12-bar blues form also illustrates his ingenuity in adapting the source material. Figure 13 presents the original jazz form and Ravel’s rendition of the form in the first ten measures.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image}
\caption{Original jazz form and Ravel’s rendition of the form in measures 15 - 25}
\end{figure}

\textsuperscript{47} Hodeir first used the term “blue note complex” to explain Darius Milhaud’s demonstration of the technique in \textit{La Creation du Monde} (Hodeir 252).

\textsuperscript{48} Claude Debussy’s ballet \textit{Jeux} (1913) and Igor Stravinsky’s \textit{Firebird} (1910), to name a couple, are clear examples of art music composers experimenting with bitonality. Such treatment of harmony in jazz contexts only occurred after the arrival of Duke Ellington (1899–1974), who popularized bitonal harmonies through his tunes, such as \textit{Bula} (1963).
Although Ravel maintains the overall harmonic outline of I-IV-I-V-I, the early shift to the subdominant in measures 2 and 8 signifies acceleration in harmonic motion, often referred to in jazz parlance as ‘quick to four’ (Mawer 129). The blue-note complex and the truncated form illustrate ways in which Ravel incorporated elements of source material into his individualized forms and present the clearest examples of Ravel’s “manipulation” of jazz.

Ravel’s “Minute Stylization” of Jazz

In contrast to manipulation, minute stylization involves borrowing foreign elements in a manner that preserves the most defining aesthetic traits of their “home” style. Minute stylization is most evident in Ravel’s notations of specific details related to rhythmic infrastructure, glissandi, and articulation. At measure 12, for example, the stylizing of the blues is clear not only from his indication of *nostalgico*, which alludes to the melancholic mood often associated with the genre, but also from the rhythmic infrastructure, which features syncopated melodies weaving through a metronomic 4/4 accompaniment in *Moderato* tempo.
Along with these rhythmic traits, the violin lines present F#/G-flat in the key of A-flat major, adding the lowered seventh typical of the blues. Performance indications such as fingerings and the words *sul La* inform performers of Ravel’s sound concept, which allude to particular timbres and sonic qualities common in blues and jazz.\(^{49}\) In particular, Ravel’s meticulous notating of the glissando’s rhythm in measure 12 (Figure 14) suggests allusions to the slides and smears typical of jazz trombonists of the 1910s and 1920s. Similar to trombone slides in Europe’s “St. Louis Blues,” Ravel’s notations signify a certain pacing to the glissando, with the ascent slower at the head of the note than at the end. Thus, Ravel’s notation can be interpreted to convey greater emphasis on the pacing characteristics of trombone glissandi rather than the perfect rhythmic execution of the triplet figure.\(^{50}\) Similar allusions to trombone glissandi can be seen in measures 26 (Figure 15), where the 32\(^{nd}\) notes and the dynamic markings in both the piano and violin lines allude to trombone slides observed in Reese’s “St. Louis Blues.”

\(^{49}\) Mawer states in her analysis of the *Blues* movement that the fingerings were Ravel’s original markings rather than those of editors.

\(^{50}\) For performance instructions on how to play these glissandi, consult Chapter Four.
subtle details of the source material, which in these cases are the moaning effects of jazz trombonists.

Along with Ravel’s notations of glissandi, his rhythmic constructions allude to rhythms common in 1920s jazz. As can be observed in measures 67 to 69 (Figure 16) and 73 to 74 (Figure 17), periodicity of articulations and registral emphases help in creating grouping structures that are asynchronous to the underlying 4/4 metrical structures:

![Figure 16. Violin Sonata No.2, second movement, mm. 67 - 70 (Ravel), example of Ravel’s construction of “superstructure”](image1)

![Figure 17. Violin Sonata No.2, second movement, mm. 73 - 74 (Ravel), example of Ravel’s construction of “superstructure”](image2)

In Figure 16, the accents on every third eighth note in the piano’s right hand elicit the emergence of a 3/8 metre over the 4/4, suggesting the interplay of two distinct metres. Similarly, in measures 73 to 74, the timbre of violin pizzicatos high on the E-string help suggest a secondary metre of 3/8 that is asynchronous not only with the grouping structures established by the repeated accents in the piano right hand but also with the underlying rhythmic infrastructure in the piano bass. As in Mitchell’s “Ain’t We Got Fun,” this rhythmic construction is indicative of Hodeir’s superstructure and engenders a forward orientation to the music suggestive of vital
The same rhythmic procedure is seen in measures 95 to 97 (Figure 18), where Ravel implies two independent metres through the periodic elicitation of grouping structures that do not align with the underlying rhythmic infrastructure.

![Figure 18. Violin Sonata No.2, second movement, mm. 95 - 97 (Ravel), example of Ravel's construction of "superstructure"
](image1)

The sense of vital drive is most keenly notated in measures 107 to 109 (Figure 19), in which the crescendo, harmonic tension, and 16th note anacrusis enhance the sense of propulsion inherent to

![Figure 19. Violin Sonata No.2, second movement, mm. 107–109 (Ravel), example of Ravel's construction of "superstructure"
](image2)

51 For more information on how such superstructures engender forward motion in the music, consult sound clip #10 and its accompanying text in Chapter Two.
the superstructure that emerges from the sensation of two independent metres. Compared to superstructures observed in Mitchell’s “Ain’t We Got Fun,” however, Ravel’s rhythmic procedures are more complex owing to grouping structures that imply the simultaneity of two metrical structures at various metrical strata. Thus, measures that exemplify Ravel’s “minute stylization” of jazz preserve a type of glissando typical to jazz trombonists of the early 20th century and feature rhythmic environments, which, following Hodeir, are conducive to swing.

**Copland’s “Molecule of Jazz” in the Nocturne**

In the Nocturne, Copland’s “molecule of jazz” is implied through his asymmetrical division of the 4/4 metre into one bar of 3/8 and one bar of 5/8 (Figure 20). Although Copland applies the subdivisions to both the piano and violin line, the asymmetrical division of the bar is more applicable to the piano, which features melodic content that is more befitting of the 3 + 5 framework.

![Figure 20. Nocturne, m.1 (Copland), example of Copland’s asymmetrical subdivision of the bar](image)

Figures 20 and 21 reveal how the piano’s rhythmic constructions fit neatly into Copland’s prescribed subdivision, while the violin’s rhythmic language is more compatible with the 4/4 metre. Presenting rhythmic constructions that reinforce two different organizational patterns, measures 5 and onwards exemplify Copland’s molecule of jazz in a very subtle way.

What is unique to Copland’s use of the molecule of jazz in the Nocturne is that the simultaneity of two metres engenders rhythmic feel indicative of both vital drive and relaxation. Contrasting with Confrey’s “Stumbling” and Gershwin’s “Fascinating Rhythm,” both of which feature Copland’s molecule of jazz as a way to enhance the sense of rhythmic propulsion, Copland’s explicit markings on timing in the Nocturne suggest the interplay of vital drive and relaxation as a key aesthetic characteristic.
Along with *accelerandi* in the first half of each measure starting from measure 4 (Figure 21), the syncopated nature of the violin melody provides a forward orientation to the violin line; in keeping with Butterfield’s “power of anacrusis,” the syncopations in the violin line ratchet up rhythmic dissonance that helps to drive the music forward towards consonances that occur on each of the downbeats. While the *accelerandi* and the syntax of the violin line suggest rhythmic propulsion, Copland’s indications of *ritardando*, dotted-tenuto, and *presque un triolet*, which specify a “triplet-like” interpretation of the rhythms, nuances the rhythmic feel toward relaxation. As Figure 22 shows, Copland implies the interplay and/or the simultaneity of propulsion and relaxation; this passage illustrates how Copland’s rhythmic language alludes to Joyner’s idea of “swing’s duality” and Hodeir’s notion of “swing’s paradox.”

---

52 Regarding Joyner’s swing’s duality and Hodeir’s notion of swing’s paradox, consult Chapter One.
With red arrows signifying forward motional energy and the blue arrows indicating a sense of pulling back, this figure highlights the simultaneity and the interplay of two opposing motional energies from measure 5 onwards. As the arrows make clear, the forward motion of the violin line operates contrary to the prescribed momentum of the piano. The resulting effect of this rhythmic procedure is the enhancement of metrical ambiguity that facilitates a flexibility of the music to better convey the sense of *liberamente* (Figure 21).

**Copland’s “Molecule of Jazz” in his *Ukulele Serenade***

While Copland’s “molecule of jazz” was only subtly suggested in his *Nocturne*, it is overtly present in the rhythmic language in his *Ukulele Serenade*; in the lyrical *L’istesso tempo* sections of the *Ukulele Serenade*, the bi-metric rhythmic construction presents his clearest example of molecule of jazz. From measure 55 onwards (Figure 23), the piano’s accompaniment is in 3/4 and periodically features accents on beats one and three, suggesting a 2 + 1 framework to each measure:
These asymmetrical subdivisions weaken the perception of the notated 3/4 metre. Furthermore, the violin’s melody frequently shifts metres; in Figure 23, these metrical shifts can be observed in measures 57, 62, and 64. Along with causing the bar lines to misalign between the two parts, these metrical shifts enhance the feeling of *liberamente* marked in the violin in measure 56 and suggests a rhythmic environment that are suggestive of Hodeir’s swing’s paradox.

Along with Copland’s bi-metric construction, his notations provide further support that the rhythmic language of the *L’istesso tempo* section alludes to the simultaneous of relaxation and vital drive central to swing. Vital drive is suggested in the piano line where the repeating accents not only imply the 2+1 metrical framework but also provide rhythmic propulsion; drawing on Hasty’s theory of projection, the accents function as syncopations and enhance the listeners’ expectations for the preceding grouping structures, engendering a propulsive feel to the piano accompaniment. Figure 24 demonstrates how the accents enhance the perception of forward motion:

---

53 Similar rhythmic procedure is displayed in measure 91 to 121 with the only difference being that the roles are reversed: the piano features the melody and the metric shifts.
Figure 24. *Ukulele Serenade*, mm.56–57, piano right hand only (Copland). Copland’s suggestions of “vital drive” (red arrows) and “relaxation” (blue arrows)

While the first accents of each measure emphasize the initiation of a grouping structure, the second accents on the weak part of the bars heighten the anticipation for the subsequent aural events. As represented in Figure 24, the positioning of these accents engenders different motional energies, suggesting a lilting feel to the rhythmic accompaniment. Copland’s markings of *molto ritmico* suggest that this rhythmic feel functions as the infrastructure that is foundational to the rhythmic counterpoint typifying the *L’istesso Tempo* section. Copland’s indications suggest that the feeling of vital drive should be maintained throughout the passage, and his marking of *sempre arpeggiando* provides pianists with opportunities to demonstrate subtle manners of executing the chords that help in engendering a sense of swing.

While the piano right hand maintains the sense of vital drive throughout the passage, the violin line suggests a rhythmic feel akin to Hodeir’s relaxation. The bi-metric construction results in a muddling of the rhythmic correlation between the violin line and piano accompaniment to the point of suggesting a degree of independence between the two. Copland’s indication of *liberamente* in measure 56 (see Figure 23) corroborates this and suggests that the violin line’s rhythmic feel should contrast to the *molto ritmico* feeling of the piano accompaniment. Although there are no explicit performance indications on playing the violin melody in a manner exemplary of relaxation, Copland’s use of long notes and quarter-note triplets suggest that the violin line is intended to provide a sense of pulling back on the pulse that enhances the sense of *liberamente* relative to the accompaniment. In sum, the sense of relaxation is only subtly hinted at in the violin line, gently prodding performers to play in a manner that would enhance the *liberamente* feel indicated by Copland.
Another example of Copland’s molecule of jazz can be seen in measures 132 to 135. Figure 25 illustrates the misalignment between the metrical and grouping structures; the blue lines mark the metrical structure as implied by the cyclical accents in the piano’s left hand, and the red lines signify the grouping structures as suggested by the melodic and rhythmic content of the piano’s right hand and the violin’s melody.

Figure 25. Ukulele Serenade, mm.132-135 (Copland), Example of Copland’s “molecule of jazz”:

As seen in Figure 10 from Gershwin’s *Fascinating Rhythm*, Copland’s *Ukulele Serenade* features grouping structures that do not align with the underlying metrical structure. However, Copland takes Gershwin’s rhythmic idea a step further by suggesting misalignments at three different metrical strata. While the melodic construction of the violin line suggests the metre of 6/4 from measure 132 onwards, the contour of the piano right hand and the cyclical accents in the left suggest the metres of 3/4 that are one eighth note apart. Figure 25 illustrates how this rhythmic operation elicits asynchronous metrical structures that serve to heighten the listeners’ expectation for their realignment. As can be heard in sound clip #12, these misalignments generate forward momentum towards the impending rhythmic resolution and invoke processes in performance that may serve to enhance the sense of vital drive inherent to Copland’s rhythmic language.

---

54 The same rhythmic language is featured in measures 30 to 33.
Analyses of notation in these jazz-inflected compositions by Copland thus reveal that his notation of jazz’s molecule, coupled with his performance indications, engender rhythmic qualities suggestive of swing’s relaxation and vital drive. While Copland does not mention swing or the sub-syntactical processes in his 1926 article, his indications and notations do not negate a swing-informed approach but rather invoke performance sensibilities common to jazz that are potentially more effective in conveying the sense of rhythm central to the Nocturne and Ukulele Serenade.

Suggestions of Swing in Bernstein’s Notation

In order to understand how Bernstein notated swing in the “Socrates: Alcibiades” movement of his Serenade, it is helpful to analyze how he incorporated jazz elements into his most jazz-influenced work, Prelude, Fugue, and Riffs (1949). As discussed in Chapter Two, the fundamental changes in jazz practice and their implications for how the notion of swing was understood during the 1930s and 1940s, coupled with Bernstein’s subtle methods of utilizing them, warrant widening the lens to analyze his other jazz-inflected compositions; the goal here is to not merely deduce the traits of swing Bernstein intended to capture in his notation but rather to highlight the most common ways that he incorporated the idea of swing as an organic aspect of his compositional style. Described as Bernstein’s “most obvious attempt at a jazz-classical merger,” Prelude, Fugue, and Riffs (1949) provides clear examples of his efforts to appropriate jazz and therefore presents a starting point for analyzing how various types of swing became consolidated in his own notation of it (Helgert 165). Commissioned by jazz clarinetist Woody Herman, it is the only composition that Bernstein included in his telecasts on the subject of jazz.55 Introducing it in his 1955 telecast World of Jazz as a “serious piece of American music” that encapsulates “the special beauty of jazz,” Prelude, Fugue, and Riffs represents Bernstein’s most serious study of the music and catalogs his main methods of notating swing that can also be observed in the Serenade (Bernstein 119).

55 Before Herman had the chance to premiere Prelude, Fugue, and Riffs, his band disbanded in 1946.
Prelude, Fugue, and Riffs

The opening motive of *Prelude, Fugue, and Riffs*, which American author Robert Gottlieb describes as “a jazzy fanfare based on major and minor thirds,” exhibits Hodeir’s first two ingredients of swing: right infrastructure and right superstructure. While the right infrastructure is created in the bass drum and is clearly indicated in his marking of “Fast and Exact $\frac{4}{4} = 160$,” the superstructure emerges from “the combination of durational groupings of differing lengths” in the trumpets (Helgert 272). As seen in Figure 26, the trumpet statements imply two units of $6/4$, contrasting to the uncompromising pounding of $4/4$ underneath in the drums.

Along with grouping structures that do not match the underlying metrical structure, the accented syncopations on beat 4 of measure 3 and beat 2 of measure 4 engender a forward orientation, providing “the feeling of jazz syncopation[s]” (Helgert 272).
While the first four measures showcase Bernstein’s infrastructure for swing, measures 32 to 35 make explicit references to the aesthetics and the rhythmic feel of swing (Figure 27).

![Figure 27. Leonard Bernstein’s Prelude, Fugue, and Riffs, mm.32–35.](image)


The entrance of cymbals in measure 32 and the shake that is indicated in the trumpets allude to the performance styles of jazz trumpeters and evoke sonic palettes common to the swing bands of the 1930s. The most striking feature of this passage is the predominance of triplets, which coupled with semi-tone trombone glissandi, facilitate in generating “a bit more drag” as indicated in the score. Evoking Hodeir’s relaxation, the triplets imply a metre of 6/8 creating an impression of polymetres, which also heightens the sense of rhythmic freedom and lilt suggestive of swing.

While polymetric features in measures 32 to 35 help in eliciting feelings of relaxation, Bernstein’s use of polymetres in measures 124 to 129 accentuate the vital drive dimension of swing (figure 28). Going a step further than the previous examples in which the melodic contents are only suggestive of a secondary metre, the marked groupings of alto and baritone saxophones indicate Bernstein’s deliberate construction of secondary metrical strata.
The resulting effect of these irregular groupings is that the misalignments between melodic groupings and the steady rhythm in the tenor saxophones heighten the sense of expectation that encourages the emergence of the forward momentum central to vital drive. Coupled with the previous examples, measures 124 to 129 make clear that “polymetrical superimposition of irregular groupings on a regular rhythm is one of the most important components of Bernstein’s conception” of swing (Helgert 280).

Along with Bernstein’s tendencies to superimpose irregular groupings, *Prelude, Fugue, and Riffs* features his frequent use of metres based on the eighth note. This is the case in measures 57 to 78, which, like measures 124 to 129, also present frequent shifts of metre. The use of shifting eighth note metres not only alludes to the rhythmic characteristics of bebop—specifically a less rigidly expressed 4/4 infrastructure—but also conveys Bernstein’s attempt to place notes within the rhythmic groove of the music. Similar to Copland’s markings in the *Nocturne*, Bernstein’s notations are suggestive of what Frith’s calls “internal timing,” in which the placement of notes references how jazz performers describe “playing in the pocket.” In sum, Bernstein’s notations and rhythmic constructions are not only suggestive of the rhythmic frameworks typifying Bebop, but also indicative of performance sensibilities central to Hodeir’s third ingredient for swing: the correct placement of notes.
Analysis of *Serenade after Plato’s “Symposium”*

Along with the use of metres based on eighth notes, irregular groupings above a steady pulse are common features of Bernstein’s rhythmic language in the *Serenade*. Of all the movements, the fifth, “Socrates: Alcibiades,” exhibits the most audible jazz influence (Helgert 253). Divided into two sections, it first features a lyrical passage over homophonic accompaniment, which serves to represent Socrates’ speech on love. The second section, which is marked *Allegro Molto Vivace*, creates rhythmic impetus by employing melodies that exhibit asymmetric divisions of the bar and by shifting time signatures from 6/8 to 8/8. These all serve to depict Alcibiades and his drunken friends. As in measures 32 to 35 of *Prelude, Fugue, and Riffs*, Bernstein’s most obvious allusion to jazz is the rhythm of the bass pizzicatos in measures 196 to 201 (see Figure 29), which resembles Milt Hinton’s approach in Hawkins’ band and the playing convention used by all jazz bassists the vast majority of the time.

![Figure 29. Leonard Bernstein's Serenade after Plato's “Symposium,” Movement V: “Socrates: Alcibiades”, mm.196 – 201: the bass pizzicatos in triplet rhythms are Bernstein's most obvious reference to jazz.](image)

In contrast, measures 121 to 125 (Figure 30) present rhythmic construction and markings that “resemble a swing feel” (Helgert 265). While the regular rhythms in the lower strings and irregular melodic groupings in the violin present Bernstein’s notation of swing’s syntactical characteristics, markings related to articulatory styles are suggestive of its processual dimensions. As described in Geringer, Madsen, Droe, and MacLeod’s 2006 study, the tenuto marking in the cello implies relaxation while the staccato notes in the violins and violas suggest forward orientation akin to vital drive.\(^{56}\) In addition, exemplifying the philosophical underpinnings of “harmonic improvisation,” the dissonant quality of major seventh (D and E-

---

\(^{56}\) For further information on Geringer’s, Madsen’s, Droe's, and MacLeod’s 2006 study “The Effect of Articulation Style on Perception of Modulated Tempo,” please consult Chapter One.
flat) and the eventual resolution to the fifth (F and C) in the violin further contribute to the overall propulsive feeling of the line. Figure 30 provides my visual summary of the motional energies, as suggested by Bernstein’s rhythmic and harmonic construction and articulation markings:

Figure 30. Leonard Bernstein’s Serenade after Plato’s “Symposium,” Movement V: “Socrates: Alcibiades,” mm.121–125: Bernstein’s suggestions of “relaxation” and “vital drive”


The red arrows convey the propulsive feeling akin to vital drive while the blue arrows indicate the opposite rhythmic feel, relaxation. Along with the type of motional energy, the arrows aim to convey the degree of propulsion through its incline; arrows preceding the 5th are steeper to account for the enhancement of propulsive feel which results from the dissonant, D and E-flat dyad. Furthermore, the arrows emphasize how Bernstein’s notations imply “swing’s duality” through the simultaneous presentation of vital drive and relaxation. Although Bernstein does not explicitly state that such simultaneity is central to his conceptualization of swing, his rhythmic language and markings throughout the movement are suggestive of it.

Another example of Bernstein’s subtle notation of swing’s duality is in measures 125 to 134. Here, the markings of the solo violin line similarly suggest the interplay of two opposing
motional energies. As in Figure 30, the red and blue arrows indicate Bernstein’s allusions to vital drive and relaxation.

Figure 31. Leonard Bernstein’s Serenade after Plato’s “Symposium,” Movement V: Socrates: Alcibiades, mm.125–134: Bernstein’s suggestions of “relaxation” and “vital drive”


Unlike measures 121 to 124, in which articulation markings help in clarifying the dimension of swing that Bernstein is referencing, measures 125 to 134 feature articulation styles contrary to the motional energy implied in the melodic construction. For example, the tenuto markings on C# and B from measure 129 onwards seem out of place given that they function as pick-ups to the subsequent chord or as notes of initiation for the following group of aural events. To make sense of Bernstein’s articulations in these measures, it is essential to consider his indication of poco pesante, ma gaio in measure 129, which signifies “a little heavy, but happy.” These two affective qualities invoke not only two different feelings of the pulse but also two contrasting approaches to performance; as in other concert music, pesante usually implies a weighted manner of playing that results in a subtle displacement of the pulse to the back end of the beat. In contrast, music conveying qualities of “happy, cheerful” generally imply a more delicate, lighter manner of playing that would feature articulation and an uplifting feeling of the pulse that most often displaces the pulse to the front end of the beat. Given these two opposing qualities in Bernstein’s indication, the inherent forward orientation of C#s and Bs, which is a consequence of their dissonant quality in the key of C-major and function as anacrases, is problematized and invokes performance sensibilities that would convey rhythmic feeling suggestive of vital drive and relaxation. Thus, Bernstein’s markings in these measures again invoke the duality of swing.
More so than *Prelude, Fugue, and Riffs*, the *Serenade* exhibits a rhythmic language that shows subtler and more thoroughly incorporated use of jazz’s aesthetics and rhythmic feel. As such, it exemplifies Bernstein’s “spiritual” approach in composition more than his other jazz-inflected compositions. Similar to *Prelude, Fugue, and Riffs*, however, Bernstein utilizes rhythmic tension resulting from the misalignment of regular rhythm and melodic grouping structures as a device for forward propulsion. What is unique to the *Serenade* is that the emergence of Hodeir’s superstructure is not always explicitly notated, suggestive of the rhythmic operations typical of Bebop artists who relied on an implicit understanding of the infrastructure. For example, measures 60 to 62 (figure 32) present metrical shifts from 6/8 to 8/8 that is common in the “Alcibiades” section.

![Figure 32. Leonard Bernstein’s Serenade after Plato’s “Symposium,” Movement V: “Socrates: Alcibiades,” mm.60–62: Metrical shifts that are central to Bernstein’s conceptualization of swing](image)


Drawing on my previous sound recording analysis of Dizzie Gillespie’s “A Night in Tunisia,” the rhythmic interplay central to Bernstein’s conceptualization of swing can be better understood when considering the melodic content within the context of a *perceived* infrastructure. Conversely, examining measures 60 to 62 of Bernstein’s *Serenade* in isolation does not make a strong case for rhythmic counterpoint of any kind. Although the passage does feature asymmetrical division of the bar, the manner of division is applied to all instruments rather than the melodic voice alone. Furthermore, there is no explicit indication of regular rhythm or underlying infrastructure that would serve as a reference point to facilitate the sense of asynchrony central to creating a related rhythmic tension. However, when these measures are
observed within the context of the larger phrase (Figure 33), it is clear that the rhythmic infrastructure is strongly implied; Bernstein’s writing overtly emphasizes the 6/8 metre from measure 56 and 57 and conditions the listener to perpetuate the 6/8 metre, which functions as the regular, underlying rhythmic infrastructure.

![Figure 33. Leonard Bernstein's Serenade after Plato's "Symposium", Movement V: "Socrates: Alcibiades," mm.56 – 59: Bernstein's appropriation of rhythmic environment common to Bebop](image)

Figure 33. Leonard Bernstein’s Serenade after Plato’s “Symposium”, Movement V: “Socrates: Alcibiades,” mm.56 – 59: Bernstein’s appropriation of rhythmic environment common to Bebop


Measures 56 to 58 condition listener to a 6/8 metre, so the metrical shift to 8/8 in measure 59 is easily perceived as a clear deviation from the underlying 6/8 metrical structure; with the addition of two eighth notes, the pulse, which had aligned on the first and the fourth eighth note in previous bars, now aligns with the second and fifth eighth notes. In effect, the alignment of the underlying 6/8 and the 8/8 in the melody has shifted by one eighth note.

A similar rhythmic operation can be observed in measures 108 to 117, which also showcase frequent metrical shifts between 8/8 and 6/8. As in measures 56 to 59, the shifts to 8/8 superimpose melodic groupings that do not align with the underlying, perceived rhythmic
infrastructure.\textsuperscript{57} In Figure 34, the dotted red lines signify the perceived infrastructure of 6/8, aligning at different beats of the bars with each introduction of the 8/8 measures:

\footnotesize{\textsuperscript{57} The measures prior to measure 108 condition the listener to entrain to a 6/8 metre, and the metrical shift to 8/8 in measure 109 suggests a deviation from the \textit{perceived} 6/8 metrical structure. Similar rhythmic operation is featured in measures 56 to 59.}
Furthermore, the bold, dotted red lines in Figure 34 indicate moments in which the alignment between the melodic groupings shifts by one eighth note. The resulting effect of such a rhythmic procedure is that misalignments resulting from the superimposition of melodic groups onto the suggested 6/8 metre enhance expectations for realignment, engendering a sense of vital drive.

Conclusion

While Chapter Two discussed how each composer conceptualized and interpreted the rhythmic sensations central to swing, Chapter Three presented how each composer notated it. Although the composers in question were exposed to swing at various stages of its development, their notations indicate that asynchrony between melodic groupings and the underlying infrastructure...
was of great importance to all of them. However, each composer provided different performance instructions to suggest and evoke different rhythmic sensations. For instance, the marking *nostalgico* in Ravel’s “Blues” implies a different feel from Copland’s marking of *liberamente* in the *Nocturne*; and similarly, Copland’s performance instruction of *molto ritmico* in *Ukulele Serenade* suggests a different approach to rhythm from Bernstein’s indication of *poco pesante, ma gaio* in the fifth movement of his *Serenade*. These differences in their performance instructions coupled with the inherent subtleties of swing indicate the importance and utility of applying a swing-informed approach to performance that may better demonstrate the subtle differences in each composer’s conceptualization and provide a strong sense of swing in performance. Since details in performance that would help in differentiating the composers’ conceptualizations of swing are subtle and highly subjective, Chapter Four will use opinions of jazz experts as starting points for devising a swing-informed approach in performing these compositions.
Chapter 4
Steps Towards Developing a Swing-informed Approach

Methodology

This chapter examines commercially-released sound recordings of the selected compositions with the aim of isolating performance sensibilities that may be central to a swing-informed approach in performance. A panel of elite jazz musicians—Evan Price, David Balakrishnan, and Andrew Downing (hereafter referred to as the panel)—were presented with five anonymized recordings of the selected compositions and asked to select the ones that they felt best conveyed a sense of swing. My purpose was to gain a sense of which interpretations were most successful in conveying performance sensibilities familiar to experienced jazz performers. It is important to note that I did not wish to determine the “correct” way of performing the selected pieces. Rather I wanted to better understand performances that reflected an approach to performance that accounted for the composers’ intentions as indicated in the score and displayed performance sensibilities that made the music swing in a more jazz-like way. To this end, the panel’s comments and preferences revealed that maintenance of steady pulse (external timing), rhythmic accuracy, displays of participatory discrepancies and stylistic similarities to jazz performers were important for creating swing in a manner familiar to them.

Although there was a fair bit of agreement amongst the panel members, they also diverged in opinion on some recordings. As Figure 35 presents, the panel unanimously selected violinist Kristian Winthers and pianist Anthony Romaniuk’s performance of Ravel’s Blues movement from their 2008 album titled “Tzigane” as their favourite in terms of its sense of swing. Similarly, there was consensus of opinion that Hilary Hahn’s recording of Bernstein’s Serenade with conductor David Zinman and the Baltimore Symphony Orchestra from the 1997 album titled, “The Hilary Hahn Collection” was successful in conveying a sense of swing.

58 The methodology and the interview questions are presented in Appendix 2.
<table>
<thead>
<tr>
<th>Panel Members:</th>
<th>Ravel:</th>
<th>Copland:</th>
<th>Copland:</th>
<th>Bernstein:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrew Downing</td>
<td><em>Blues</em></td>
<td><em>Nocturne</em></td>
<td><em>Ukulele Serenade</em></td>
<td><em>Socrates</em>:</td>
</tr>
<tr>
<td></td>
<td>Kristian Winthers, vln</td>
<td>Edmond Agopian, vln</td>
<td>Jacques Gordon, vln</td>
<td><em>Alcibiades</em>:</td>
</tr>
<tr>
<td></td>
<td>Anthony Romaniuk, pno</td>
<td>Charles Forman, pno</td>
<td>Aaron Copland, pno</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hillary Hahn, vln</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>David Zinman, cond.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Baltimore Symphony Orchestra</td>
</tr>
<tr>
<td>Evan Price</td>
<td>Kristian Winthers</td>
<td>Edmond Agopian, vln</td>
<td>William Terwilliger, vln</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anthony Romaniuk</td>
<td>Charles Forman, pno</td>
<td>Andrew Cooperstock, pno</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hillary Hahn, vln</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>David Zinman, cond.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Baltimore Symphony Orchestra</td>
</tr>
<tr>
<td>David Balakrishnan</td>
<td>Kristian Winthers</td>
<td>Elizabeth Smith, vln</td>
<td>Jacques Gordon, vln</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anthony Romaniuk</td>
<td>Leslie Patteys, pno</td>
<td>Aaron Copland, pno</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hillary Hahn, vln</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>David Zinman, cond.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Baltimore Symphony Orchestra</td>
</tr>
</tbody>
</table>

Figure 35. The panel’s sound recording selections

There were, however, divergences of opinion on Copland’s *Nocturne* and *Ukulele Serenade*. As Figure 35 presents, while Downing and Price selected violinist Edmond Agopian and pianist Charles Forman’s recording of *Nocturne* from their 1995 album titled “A Little Romance,” Balakrishnan found the Nevelson Duo’s recording of the piece from their 2004 album titled “American Music for Violin and Piano” as being most effective in demonstrating performance sensibilities suggestive of swing. A similar discrepancy was observed in the evaluations of Copland’s *Ukulele Serenade*; while Downing and Balakrishnan found violinist Jacques Gordon and composer/pianist Aaron Copland’s 1935 recording as coming closest to conveying swing, Price selected Terwilliger and Cooperstock’s version from their 2000 album *Aaron Copland*. Notwithstanding some inconsistencies in the panel’s selections, analyses of performances

---

59 For complete citation of the selected recordings, consult Appendix 3.

60 As indicated in Figure 35, the Nevelson Duo consists of violinist Elizabeth Smith and pianist Leslie Patteys.

61 As indicated in Figure 35, the Terwilliger-Cooperstock Duo features violinist William Terwilliger and pianist Andrew Cooperstock.
preferred by the panel spotlighted performers’ approaches to rhythmic execution, articulation, and pulse management that can be central to a swing-informed approach to performing compositions that draw on jazz and harness the rhythmic qualities of swing.

Discussions of Ravel Performances

Comparing Winthers and Romaniuk’s recording of Ravel’s Blues movement with the other versions reveals the discrepancies in pulse management as well as occasional participatory discrepancies that together led the panel to perceive a better “rhythmic pocket” (Balakrishnan #2), “nice sense of groove” (Price #2), and “stronger sense of swing” (Downing #1) than the other presented recordings. One of the key differences between Winthers and Romaniuk’s performance and others were their choice of tempo. Tapping along with sound clip #19, which presents Winthers’ pizzicatos, reveals that his quarter note pulse is 107bpm. Comparing sound clip #19 with sound clip #20 and sound clip #21, which present other performers’ slower renditions of the same pizzicato section reveals how Winthers’ choice of and steadiness in tempo are more effective in “giving the impression of moving inexorably ahead” (Hodeir 198). To enhance this impression of forward momentum, Winthers employs a unique interpretation of the pizzicatos that, according to Balakrishnan, makes him “sound like a guitar player” (Balakrishnan #2). Regarding Winthers’ pizzicatos, Balakrishan states, they “reminded me of [famed “Gypsy jazz guitarist] Django Reinhardt... [and] provide movement in the phrasing” (Balakrishnan #2).

As can be heard at 0:09, 0:11, and 0:22 of sound clip #19, Winthers adds pick-ups to the pizzicatos in measures 5, 6, and 10. Cross-referencing sound clip #19 with Figure 36 illustrates how the addition of pick-ups, as signified by black arrows, enhances the sense of forward motion towards the piano entrances in measures 7 and 11:

62 To protect the reputations of the performers and to avoid any profession tensions between the panelists and the performers, all performers except those presented in the panel’s preferred sound recordings will be anonymous throughout the dissertation.

Although the addition of these upbeats may be interpreted as a violation of the composer’s low-level intent, they can also be interpreted as the basis of participatory discrepancies that heighten the syncopating effect of the forte pizzicatos, which naturally engender movement in the musical line. In sum, Winthers’ choice of tempo and addition of pick-ups not only facilitate the generation of what Downing described as a “nice sense of groove,” but also represent Ravel’s high-level intent of evoking a sense of swing (Downing Interview #1).

Along with demonstrating Ravel’s sense of swing, Winthers’ performance captures Ravel’s high-level intent of evoking a bluesy feeling through his use of vibrato. Comparing Winthers’ performance of the nostaligico theme in sound clip #22 with sound clip #23 by another performer clearly highlights the artists’ different approaches to vibrato; while Winthers only occasionally showcases the vibrato, the other violinist applies vibrato on almost every note (Figure 37).
Winthers' conservative use of the vibrato can also be observed in measures 29 to 36 (Figure 38), in which he occasionally displays delayed onsets of the vibrato; cross referencing sound clip #24 with Figure 38 reveals Winthers' unique approaches to vibrato at 0:08 and 0:12 on the high ‘D’ in measure 31 and the low ‘D’ in measure 33.64

---

64 The pitch content of measure 33 suggests the key of B-major, which would make the note ‘D,’ the lowered third, hence, a blue note in the key of B-major.
Such use of vibrato works in conjunction with “scoops” to closely resemble common tendencies of blues singers, such as Bessie Smith. Side-by-side comparison of Winthers’ vibrato at 0:12 on sound clip #26 and Smith’s vibrato at 0:04 on sound clip #27 highlights the similarities between their performances. While these stylistic considerations are extrapolations from the directives in the score and may even be considered as deviations from Ravel’s notations, Winthers’ treatments of pitch and vibrato are in keeping with Ravel’s high-level intention of inflecting the performance with blues sensibilities.

Along with replicating stylistic elements that typify 1920s jazz and blues, Winthers’ management of vibrato works in concert with other dimensions of performance to evoke rhythmic sensations that elicit Ravel’s sense of swing. In measures 30 to 36, his performance suggests the interplay between “relaxation” and “vital drive” that, as discussed in Chapter One, Hodeir associates with the rhythmic feel of swing. This can be heard in sound clip #24, which reveals how Winthers

---

65 Sound clip #25 presents 0:24 to 0:36 of Smith’s performance and presents the musical context of her unique scooping and vibrato on notes.
implies musical direction, or to borrow Hasty’s term, “projects” sounds to heighten listeners’ anticipation for the coming aural events.

Figure 39. Violin Sonata No.2, second movement, mm.29–38 (Ravel): Winthers and Romaniuk’s management of “vital drive” (red arrows) and “relaxation” (blue arrows), as performed in sound clip #24

In measures 31 to 32, Winthers’ use of vibrato and the pianist’s dynamic enhances the sense of vital drive. As Figure 39 illustrates, this forward motion contrasts with the relaxing quality of the quarter-note triplet, which in turn magnifies the “scooping” effect on the sul Re D in measures 33 and 34. In sum, Winthers’ performance of measures 32 to 34 demonstrates approaches to managing note durations that accentuate the interplay of vital drive and relaxation and exhibit rhythmic qualities suggestive of the sense of swing heard around the time Ravel composed the piece.

Demonstrations of “Sound’s Equilibrium”

Winthers’ playing in measures 31 to 33 (Figure 39) exemplifies Schuller’s notion of “equilibrium between sound’s horizontality and verticality” (Schuller 224). As discussed in Chapter One, a musician’s management of sound’s “horizontality” and “verticality” influences the listeners’ perception of horizontal motion and becomes important for creating swing in
Comparing Winthers' recording with other sound clips reveals how other performers typically overemphasize the verticality of musical sounds at the expense of horizontality. For instance, in sound clip #28 the violinist accentuates the quarter-note triplets in measure 33 in a manner that disrupts the horizontal flow of the line. Although the performer’s playing does heighten the sense of relaxation inherent to the notated rhythm, it also segments the phrase, which to my ear emphasizes verticality more keenly than horizontality. In contrast, Winthers’ control on dynamics as well as his connecting of sounds between measures 32 to 33 in sound clip #24 allows the horizontal motion of the phrase to lead all the way to the sul Re D in measure 33 and facilitates in making a longer musical phrase. Although the differences between the two musicians’ interpretations in these measures may seem subtle, Price’s comment that Winthers and Romaniuk’s performance demonstrated a sense of “rhythmic pocket” suggests that they were more successful in conveying horizontal linkage between the notes while maintaining a steady sense of pulse. Thus, they were more effective in exemplifying Schuller’s notion of sound’s equilibrium and, therefore, more conducive to conveying swing in performance.

Another demonstration of sound’s equilibrium can be observed in Winthers and Romaniuk’s treatment of measures 91 through 94. Here again comparing Winthers’ performance with sound clip #29 highlights differences between performers’ management of pulse and their effects on the listeners’ perceptions of horizontal motion and the music’s vertical dimensions. Figure 40 represents handling of motional energy as displayed by the performers featured in sound clip #29:

66 For more information on Schuller’s notion of sound’s “equilibrium,” consult chapter 1.
The most defining feature of the performers’ approach is the increase in tempo in measures 91 to 94. Although such treatment of tempo does magnify the sense of vital drive inherent to the rhythms in the piano part, it also negates the sense of relaxation suggested in the violin line’s rhythmic syntax. (For this reason, the red arrows, indicating vital drive, are also depicted on top of the quarter note triplets in Figure 40). Furthermore, the acceleration heard in this sound clip minimizes the perception of the underlying 2/4 metric structure, which results from the oscillations between the B-flat and the F in the piano’s left hand (see Figure 40, where the dotted black lines signify the 2/4 meter suggested in the score). In sum, the performers’ enhancement of vital drive through increasing the tempo not only constrains the sense of rhythmic interplay between vital drive and relaxation, but also minimizes the perception of the music’s vertical dimensions, which are essential to the conveyance of swing in performance.

---

67 This effect is made more apparent with side-by-side listening to sound clip #13 and sound clip #14.
Comparing sound clip #29 with Winthers and Romaniuk’s performance in sound clip #30 illustrates how a steady pulse in performance not only helps to reinforce the sense of equilibrium between sound’s horizontality and verticality, but also conveys the simultaneity of vital drive and relaxation. In contrast to the pianist’s performance in sound clip #29, Romaniuk’s playing of measures 91 to 94 exhibits his handling of dynamics, which suggests forward motion rather than an actual increase in tempo; from measure 92 onwards, he increasingly uses the pedal to enhance the crescendo and heighten the tension in the music. Additionally, Romaniuk’s playing of the written rhythm to resemble the archetypal notation for swung eighth notes helps in conveying relaxation. In short, Romaniuk’s playing concurrently conveys the sense of “vital drive” and “relaxation.” Listening to sound clip #30 illustrates how this rhythmic execution brings out not only the horizontal linkage between the notes, but also the 2/4 meter suggested in the piano bass.

68 For more information on the notation of swing in literature, consult Chapter One.
Figure 41. Violin Sonata No.2, second movement, mm. 91–97 (Ravel): Winther and Romaniuk’s management of “vital drive” and “relaxation as well as emergence of 2/4 meter, as presented in sound clip #30

As Figure 41 illustrates, Romaniuk’s playing acknowledges and reinforces the vertical hierarchy (the 2/4 meter) while maintaining horizontal flow, exemplifying Schuller’s notion of sound’s equilibrium.

Although Romaniuk’s rhythmic execution may be interpreted as a violation of the composer’s intent with respect to note durations and articulation, his performance helps in reinforcing other aspects of Ravel’s vision: his harmonic planning. Listening to Winthers and Romaniuk’s playing in measures 92 to 94 reveals how their maintenance of “equilibrium” directs attention to measure 95 as the start of new musical material—something that is also indicated in the score with a key change to C. This was unique to Winthers and Romaniuk’s performance; all the other recordings accelerated from measures 94 to 95, following the blueprint heard in sound clip #29 and shown in Figure 40. In short, Winthers and Romaniuk’s maintenance of a steady pulse coupled with the pianist’s interpretation of the rhythm not only allowed the performance to engender a “nice sense of groove” but also reinforced Ravel’s harmonic structure.
Discussion of Copland’s *Nocturne*

While the members of the panel were unanimous in their preference for Winthers and Romaniuk’s recording of Ravel’s *Blues*, they were slightly more divided on Copland’s *Nocturne*. While Price and Downing selected Edmond Agopian and Charles Forman’s recording from their 1995 album titled “A Little Romance” as their favourite, Balakrishnan selected The Nevelson Duo’s performance of *Nocturne* from their 2004 album titled “American Music for Violin and Piano.” An overview of the panel’s comments reveals that certain features of the *Nocturne*, such as its *Lento Moderato* tempo, made the selection task more difficult in this piece than in Ravel’s *Blues*. Regarding the slow tempo, Downing remarks, “this one was a little tougher because some of the tempos were different… because it is a little slow, it is a little hard to dig into; it doesn’t have the feeling of pushing” (Downing Interview #1). Indeed, tapping along with all the presented sound recordings reveals that with the exception of Nevelson Duo’s performance, the tempos were not within Hodeir’s suggested tempo ranges of $J = 54$ to $J = 360$ for “right infrastructure.” Although Balakrishnan did not explicitly comment on the tempo, he similarly found the selection task difficult because it required “looking at very small gradations of differences,” indicating that the differences between the renditions were much more subtle than those observed for the Ravel (Balakrishnan Interview #2). Price offered the most interesting assessment of the Copland composition in stating, “the piece is more classical…it really plays itself. To me, it does not really call for extra-classical sensibility” (Price Interview #2). Although Price’s assessment of the *Nocturne* raises the question as to how applicable a swing-informed approach is in performance, some consistencies in the panel members’ comments and preferences corroborate assertions in Chapter Two about *Nocturne* that his notations of jazz’s “molecule” call for approaches to performances that are not only more reflective of jazz sensibilities but also informed by score and contextual analysis.

Along with highlighting differing criteria for judging swing in performance, the differences in the panel’s selections provide the opportunity to distill common elements in the two preferred

---

69 As indicated in 47, the Nevelson Duo consists of violinist Elizabeth Smith and pianist Leslie Patteys.

70 The Nevelson Duo’s tempo was around 67 bpm, and all the other sound recordings featured tempos under 54 bpm.
performances. Overview of the panel’s comments reveals rhythmic accuracy, maintenance of pulse, demonstration of “internal timing,” and conveyance of horizontal flow were features that suggested swing to the panelists.\(^71\) While Price and Downing assessed Agopian and Forman’s performance as exhibiting a “more consistent time feel” and being more “faithful to the notated rhythms,” Balakrishnan similarly noted that Smith and Pattey’s performance differentiated Copland’s “fuzzy differences in the rhythms” (Downing #1, Price #2, Balakrishnan #2). As subsequent sound recording analyses reveal (see below), rhythmic accuracy made it easier for the panelists to perceive “internal timing” and horizontal flow, both of which were key in conveying Copland’s notion of swing. Downing’s comment that Agopian and Forman’s performance reflected a “greater degree of interaction between the parts” and Balakrishnan’s assertion of “greater rhythmic interplay” indicates that these performances were more successful than others in conveying the inter-ensemble rhythmic relationships that are quintessential to internal timing. Lastly, this attribute facilitated in providing greater fluidity to the horizontal flow of the music and allowed greater variety in motional energies, which provided opportunities for the interplay or simultaneity of relaxation and vital drive that typify swing.\(^72\) Although some may argue that these attributes do not guarantee the generation or perception of swing in the jazz sense, the panel’s acknowledgement of these rhythmic attributes indicate that the selected sound recordings were effective in conveying rhythmic ebb and flow akin to swing, which can be achieved through a swing-informed approach to performance.

Rhythmic Accuracy

Given that all members of the panel acknowledged performers’ rhythmic accuracy as being a key factor in their evaluation, it is worthwhile to compare sound clips of the preferred recordings with the others to determine the effects of rhythmic accuracy on their perceptions of internal timing and horizontal flow. Comments pertaining to rhythmic accuracy were particularly

\(^{71}\) As discussed in Chapter One, “internal timing” results from the collective management of beats and pertains to the “maintenance of a subjective meter” which may deviate from the “external” timing, or metronomic divisions of time. Underlining rhythmic coordination among performers, conveyance of “internal timing” primarily depends on performers’ ability to maintain ensemble in ways to suggest a sense of collective horizontal motion, whether it be “relaxation” or “vital drive.”

\(^{72}\) For more information on simultaneity of “vital drive” and “relaxation” and its relation to swing consult Chapter One.
relevant in the first three measures of the piece, in which the piano part showcases various rhythms for the C- to-E-flat gesture.

Figure 42. Nocturne, mm. 1–3 (Copland)

Comparing Forman and Pattey’s playing of Figure 42 in sound clip #31 and #32 with sound clip #33 reveals how the first two recordings are not only more successful in differentiating the rhythmic variations on the C-and-E-flat figure but also more effective is enhancing the sense of rhythmic push indicated in the score. Cross-referencing Figure 43 with sound clip #31 illustrates how Forman’s execution of the rhythms, which is, on the whole, faithful to the notation, not only heightens the sense of drive towards but also enhances the effect of the ritardando in measure 3. The sense of “vital drive” is enhanced through Forman’s placements of emphases and subtle management of sounds. As indicated in Figure 43, his increase in dynamics in the second C and E-flat figure as well as the early placement of the C in the triplet gesture not only amplify the sense of rhythmic push but also give the impression that the separate C and E-flat gesture link up to function as one motion towards measure 3.

Figure 43. Nocturne, mm. 1–3 (Copland): Forman’s management of “vital drive” (red arrows) and “relaxation” (blue arrows), as performed in sound clip #31

As Figure 43 illustrates, Forman’s management of sounds provides horizontal connection between the rests which function to accentuate Copland’s markings of accelerando and ritardando in measures 2 and 3.
Similar to Forman’s performance, Pattey’s playing in sound clip #32 spotlights subtle accentuations and management of sounds that enhance Copland’s indications suggesting rhythmic motion. Figure 44 provides a visual representation of Pattey’s handling of motional energies:

Figure 44. Nocturne, mm. 1–3 (Copland): Pattey’s management of “vital drive” (red arrows) and “relaxation” (blue arrows), as performed in sound clip #32

Listening to sound clip #32 reveals her emphasis on the second E-flat, diminuendo on the preceding triplet figure, and crescendo in the latter half of measure 2. These attributes cumulatively provide a sense of momentum toward the downbeat in measure 3. Although both pianists provide a sense of rhythmic propulsion toward measure 3, what is unique to Pattey’s rendition is that the interplay between vital drive and relaxation is much easier to perceive than in Forman’s performance. In sum, while Forman is more successful in providing a sense of cohesiveness or horizontal flow between the separate C-and-E-flat gestures, Pattey’s performance is more effective in conveying a sense of push and pull, typifying the interplay of relaxation and vital drive suggestive of Hodeir’s notion of “swing’s paradox” and Joyner’s concept of “swing’s duality.”

In contrast to these performances, the pianist in sound clip #33 neither provides a sense of horizontal flow nor enhances the perception of motional energies indicated in Copland’s markings. The accelerando in measure 2 is not easily perceived in sound clip #33 due to the pianist’s ambiguous rhythmic execution. Furthermore, the differences between the four C-and-E-flat figures are not easily discernible, giving the impression that the ones in measures 1 to 2 are disconnected reiterations rather than parts of a grand gesture towards measure 3. For this reason,

73 For more information on swing’s “paradox” and “duality” consult Chapter One.
I have indicated “?” in measure 2 (over rhythms: $\frac{3}{4}$ and $\frac{4}{4}$) in Figure 45 to spotlight instances of the pianist’s imprecise rhythmic execution, which neither reflect the notated rhythms nor evoke a sense of rhythmic push suggested in Copland’s rhythmic construction. As a result of such playing, the verticality of the phrase is much more pronounced than in the other two (preferred) recordings. As Figure 45 illustrates, the similarities in the rhythms abate the sense of horizontal flow and help reinforce the sense that the C-and-E-flat gestures are distinctly grouped from one another (as indicated by the black vertical lines). Lastly, the mitigation of the *accelerando* makes the sense of arrival in measure 3 less satisfying.

**Figure 45. Nocturne, mm. 1–3 (Copland): Management of “vital drive” (red arrows), “relaxation” (blue arrows), and rhythmic ambiguities (“?”) as demonstrated in sound clip #33**

In sum, the comparison of sound clip #33 with renditions by Forman (sound clip #31) and Pattey (sound clip #32) illustrates how rhythmic accuracy affects performers’ conveyance of horizontal flow and, therefore, plays a critical role in influencing listeners’ perception of Copland’s suggestions on the music’s rhythmic ebb and flow.

**Conveyance of “Internal Timing”**

Along with enhancing the horizontal flow of musical phrases, rhythmic accuracy is also critical in conveying “internal timing” in performance. The panel’s comments that their preferred sound recordings provided better senses of “rhythmic interplay” and “rhythmic cooperation” indicate that the performers on those recordings not only demonstrated approaches to ensemble playing that convey collective horizontal motion but also displayed manners of managing internal timing typically seen in jazz performances that swing (Downing Interview #1, Price Interview #2).
The rhythmic syntax in measures 5 to 9 offers an opportunity to study how different approaches to maintaining ensemble affect listeners’ perception of “internal timing” and collective horizontal motion (Figure 46).

Figure 46. Nocturne, mm. 4–11 (Copland)

Studying the score reveals the interrelations of the syncopations in both the piano and violin (starting from the third beat of measure 5). This is particularly evident in the last quarter note of each measure, where violin and piano melody are displaced by a 16\textsuperscript{th} note within the context of a ritardando. Subdividing the rhythms in measure 5 into 16\textsuperscript{th} note subdivisions makes the interactions between the various voices clear; as Figure 47 illustrates, the vertical lines in the last beat signify note changes and illustrate how the movement in the piano bass precedes movement in the violin line, which in turn initiates movement in the piano right hand:
This rhythmic interaction coupled with Copland’s markings of *Presque un triolet* and *ritardando* spotlights the need to coordinate in performance to maintain internal timing and facilitate the perception of horizontal flow between these notes in performance.

Comparing sound clips of measures 5 to 9 highlights the subtle discrepancies in rhythmic interactions that affect the listener’s perception of collective horizontal motion. Forman and Agopian’s performance in sound clip #34 and the Nevelson Duo’s performance in sound clip #35 both illustrate how maintenance of inter-ensemble rhythmic relationships in the last beats of measures 5 to 9 helps in creating a sense of collective movement. In both sound clips, the individual performers’ accurate placement of notes within the framework of the ensemble’s internal timing reinforces Copland’s rhythmic construction and engenders a collective sense of *ritardando*. This coordination between the two instruments is particularly clear when listening to their performances at 75% of the performance tempo.\(^74\) Sound clip #36 (Agopian and Forman’s performance) and sound clip #37 (featuring the Nevelson Duo), illustrate how the reductions of audio speed spotlight their coordination in note exchanges as a way to “interrelate the successive elements” and enhance an audible sense of collective motion (Schütz 89). Comparing these sound clips with sound clip #38 illustrates how rhythmic ambiguity mitigates the perception of horizontal flow that is indicative of internal timing in performance. In sound clip #38, the D in

\(^{74}\) The original audio files were slowed down 25% using the software *Audacity*. 

---

Figure 47. a). *Nocturne*, mm. 5 (Copland); b). Measure 5 distilled into the 16th note subdivisions to highlight the coordination of movements from piano’s left hand (1) to the violin line (2) to the piano’s right hand

---
the violin line in measure 5 is held longer than its notated rhythmic value, making the piano’s F-sharp align with the subsequent E in the violin line ([a] in Figure 48).

![Figure 48. Nocturne, mm. 4–11 (Copland): a). The coordination of movements amongst the parts is not clear due to ambiguous rhythmic executions in the violin, as demonstrated in sound clip #38 b). The rhythmic construction of the falling gestures invokes various approaches to performance: sound clip #38 exaggerates the “relaxation” while sound clip #40 demonstrates the interplay of vital drive and relaxation suggestive of rhythmic feel akin to swing](image)

Regarding this particular performance, Downing commented: “it felt like the melody was just loose over the flowing accompaniment,” suggesting that performers featured in sound clip #38 were not only less effective in conveying the rhythmic interplay indicated in Copland’s rhythmic construction but also less successful in conveying swing’s internal timing and collective horizontal flow (Downing Interview #1).

**Maintenance of Pulse**

While the rhythmic syntax in measures 5 to 8 highlights the importance of coordinating in performance to reflect internal timing, the triplet quarter notes in measure 9 (indicated in Figure 48 as [b]) allude to performance sensibilities that engender what Balakrishnan described as “something swingier” (Balakrishnan #2). Given that Copland’s instructions of *Presque un triolet* and *ritardando* still apply in measure 9, the quarter-note triplet alludes to “something different…rhythmically, groove wise” (Balakrishnan #2). Unlike the syncopated melody in the previous measures, the quarter note triplets convey a more relaxed movement towards the
preceding downbeat. As Balakrishnan noted, this rhythmic environment alludes to something “swingier” and therefore, suggests a possible moment for performers to apply a swing-informed approach in performance that may enhance the sense of swing suggested in the score.

Comparing performances of measure 9 provides an opportunity to identify other attributes that may be effective in conveying a sense of swing. In sound clip #39, note the way the performers exaggerate the sense of “relaxation” suggested in Copland’s rhythmic construction. This pulling back on the time is illustrated in Figure 49:

![Figure 49. Nocturne, mm. 8-9 (Copland): blue arrows indicate over-exaggeration of “relaxation” as performed in sound clip #39](image)

The pianist’s late placement of the second eighth note C in measure 9 (marked [a] in Figure 49) signals the relaxing of tempo throughout the measure. The relaxing quality of the quarter-note triplets is accentuated to the extent that it not only contradicts the accelerando indicated in the score but also distorts the sense of pulse. The resulting effect is a strong sense of relaxation. In short, the phrase does not feature the interplay of “relaxation” and “vital drive” indicated in the score and does not convey swing’s key rhythmic characteristics.

In contrast, sound clip #40 illustrates how the Nevelson Duo’s performance is more effective in featuring interplay of vital drive and relaxation, and therefore, closer in achieving a sense of swing. The most noticeable difference between the two sound clips is that the piano maintains motion throughout the violin’s quarter-note triplet. As Figure 50 illustrates, the performers’ management of motional energies features both vital drive and relaxation in measure 9; while the

---

75 “Sempre Simile” is indicated in measure 5.
“vital drive” is conveyed through the maintenance of “external timing” in the piano, relaxation is enhanced through the audible shift to the second note (f).

Figure 50. Nocturne, mm. 8-9 (Copland): blue and red arrows indicate interplay of “vital drive” and “relaxation” as demonstrated in sound clip #40

Speaking of this performance Balakrishnan noted, “the performer got to that triplet at bar 9 and she or he relaxed a little bit on the second note. And to me that's what Copland was trying to go for. He wanted something a little swingier….” (Balakrishnan #2). This comment coupled with the sound recording comparisons highlight how maintenance of external and internal timing is key in engendering rhythmic qualities typifying swing.

Discussions of Copland’s ‘Ukulele Serenade’

As was the case for the Nocturne, the panel’s preferences for the Ukulele Serenade were consistent between two members of the panel while a third panelist had a different opinion; while Price selected William Terwilliger and Andrew Cooperstock’s 2000 recording, both Balakrishnan and Downing selected Jacques Gordon and Aaron Copland’s 1935 recording. Regarding Terwilliger and Cooperstock’s performance, Price commented, “they settled in the pocket. Their sound concept was classical, but it swung which is key to me,” indicating that their handling of rhythms in performance displayed key features of the “rhythmic pocket” that is central to swing (Price Interview #2). While Downing selected a different recording, he similarly commented, “I felt like their sense of pulse felt good, everything felt matter-of-fact and felt like the music just chugs along,” suggesting that along with maintenance of external and internal timing, the performers’ management of horizontality and verticality influenced his decision. Although Balakrishnan did not comment on any specific rhythmic features, he noted the familiarity of the performers’ style as an important factor in his decision. Regarding Gordon and
Copland’s performance, Balakrishnan commented, “the pianist and the violinist sounded like they were going for a 1920s and 1930s, early swing style.... [in particular] the violinist gave me a clue that he was aware or heard swing fiddle.” (Balakrishnan #2). In sum, the panel’s comments indicate that display of rhythmic pocket, demonstration of Schuller’s notion of equilibrium, and stylistic allusions to jazz playing styles were the three main criteria for their evaluation.

Rhythmic Accuracy and Maintenance of Pulse

Given the tempo marking Allegro Vivo and the indication of molto ritmico, deviations in rhythmic execution were more easily perceived in the Ukulele Serenade than in the Nocturne. Measures 1 to 9 offer an opportunity to study how rhythmic accuracy plays a critical role in conveying the sense of propulsion central to Copland’s rhythmic construction. The sense of vital drive is suggested not only through the syncopated nature of the violin line, but also through the immediate switch to the 3/4 meter in measure 2. Comparing sound clip #41 with sound clip #42 illustrates how rhythmic accuracy affects the sense of vital drive in this rhythmic operation; while Terwilliger and Cooperstock’s performance in sound clip #41 exemplifies rhythmic accuracy and the maintenance of external timing as a means to enhance the sense of “vital drive,” sound clip #42 demonstrates how rhythmic ambiguity mitigates this sense of motion. Cross-referencing sound clip #42 with Figure 51 illustrates how the violinist’s ambiguous entrances distort the sense of coordination between the parts.
While the red circles mark early entrances, the blue circles indicate entrances that seem late relative to the external timing implied by the pianist’s playing. The effects of these rhythmic inaccuracies are particularly clear in measure 7 in which the early entrance of the violin line abates the sense of internal timing and mitigates the rhythmic push towards measure 10. In short, as in the Nocturne, ambiguities in rhythmic execution affect the sense of collective horizontal direction that are evident in Copland’s rhythmic construction.

Measures 35 to 41 provide another chance to study how rhythmic accuracy and maintenance of external timing affect the conveyance of vital drive in performance. Through cyclical accents in the piano’s bass, Copland deliberately presents his polymetric conceptualization of swing:

As indicated in Figure 52, the accents make it clear that the syncopations of the piano right hand and the violin line interact with a 3/4 rhythmic infrastructure in the piano left hand rather than the notated 4/4 meter. Given this rhythmic operation, the maintenance of 3/4, as heard in Terwilliger and Cooperstock’s performance (sound clip #43), becomes a priority for conveying
the rhythmic interactions quintessential to both vital drive and Copland’s conceptualization of swing.\textsuperscript{76}

In contrast to sound clip #43, sound clip #44 presents a performance in which the performers are not as convincing in maintaining the 3/4 infrastructure and hence, less successful in conveying a collective sense of vital drive and horizontal direction towards measure 41. Cross-referencing Figure 52 with sound clip #44 highlights how the pianist speeds up to the extent of obfuscating the underlying 3/4 infrastructure, mitigating the sense of ensemble between the various parts. Although their ineffectiveness in conveying the 3/4 infrastructure can be attributed to the quality of the sound recording to a certain degree, their lack of ensemble on the downbeat of measure 41 indicates that the performers had an individual rather than a collective sense of external timing, which affected their sense of internal timing. Again, comparing sound clips #43 with #44 underscores how important rhythmic accuracy and maintenance of external timing is in not only conveying the sense of internal timing and vital drive in Copland’s rhythmic language, but also in exemplifying his conceptualization of swing in performance.

**Equilibrium of “Horizontality” and “Verticality”**

While comparing sound clips of the Allegro Vivo section highlights the importance of rhythmic integrity in conveying Copland’s sense of swing, analyzing performances of the L’istesso Tempo sections in measures 91 to 100 spotlights the subtle ways that the performers’ management of accents and durations of sounds demonstrate Schuller’s notion of equilibrium in performance.\textsuperscript{77}

Regarding Copland and Gordon’s performance of these sections, Downing remarks:

> I felt like the other ones made a big deal of the melody, but this one felt like it chugs along…I thought that the pizzicatos were the best in this one. There is a way that the accents were subtle but effective in feeling the syncopated rhythm. Some of the other ones were just a statement in time as opposed to a statement as to where it happens in the bar. The weird thing about this section is that because

\textsuperscript{76} For more information on Copland’s conceptualization of swing, consult Chapter Two.

\textsuperscript{77} Measures 55 to 82 present the same bi-metric construction as 91 to 100, with the major difference being that the violin rather than the piano is the accompaniment in measures 55 to 82.
the melody and accompaniment are written in two different time signatures, to have the accompaniment feel like it is in 3 was important to me (Downing Interview #1).

Comments about the ways the music “chugs along” while clearly conveying the rhythmic feel “in 3” indicate that this performance was effective not only in conveying the music’s horizontal flow, but also in reinforcing the “verticality” of the accompaniment’s 3/4 rhythmic infrastructure.

Given that the perception of sound’s “horizontality” and “verticality” results from very subtle processes in performance, comparing Gordon and Copland’s performance of the *L’istesso Tempo* sections with other performances helps to clarify the reasons why their performance was more effective for creating a sense of sound’s equilibrium as described by Schuller. Sound clip #45 presents Gordon and Copland’s performance in measures 91 to 100 (Figure 53), and sound clips #46 and #47 present clips from the other recordings that the panel evaluated.

---

Figure 53. Ukulele Serenade, mm. 89–100 (Copland)
Sound clips #46 and #47 exhibit two different approaches to managing sound’s horizontality and verticality; while the choice of tempo and unequal treatment of accents in sound clip #46 mitigate the sense of horizontal connection and overemphasize the music’s verticality, the fast tempo and the negligible emphasis on the accents in the violin sound clip #47 reduce the sense of 3/4 infrastructure and exaggerate the music’s horizontality. In contrast to these two performances, Gordon and Copland’s recording (sound clip #45) showcases a performance in which horizontal flow of the line as well as the rhythmic infrastructure of 3/4 are simultaneously conveyed. This equilibrium of horizontality and verticality results partly because of Gordon’s equal emphasis on the pizzicato, which provides, as Downing described, a “subtle but effective [feeling in] the syncopated rhythm” (Downing Interview #1). As Figure 54 illustrates, this style of pizzicato playing serves the dual purpose of enhancing the sense of horizontal motion and reinforcing the 3/4 infrastructure. Although this effect is subtle, the accents help listeners perceive the interplay between the piano’s 4/4 and the violin’s 3/4 (from measure 92 onwards), which enhances the extent to which the piano’s melody is perceived as syncopated.

Comparing the score with all three recordings underlines how Gordon and Copland’s performance in sound clip #45 most convincingly displays the sense of horizontal motion and reinforces the 3/4 rhythmic infrastructure of the violin accompaniment.
Stylistic Similarities

Balakrishnan also noted that Gordon and Copland’s performance “sounded like 1920s and 1930s swing style” (Balakrishnan Interview #2). Amongst the variety of sounds that 1920s and 1930s jazz encompasses, Balakrishnan narrows the comparison further in stating, “the player sounded like Joe Venuti to me. It sounded like he played with a hardcore downbeat” (Balakrishnan Interview #2). Although an in-depth review of Venuti’s life and work is beyond the scope of this dissertation, it is helpful to review some of his sound and video recordings to tease out aspects of his playing that inform what Balakrishnan may mean when he describes Gordon’s playing as featuring Venuti’s “hardcore downbeat.”

Recordings of Venuti performing reveal a number of tendencies that contributed to his signature rhythmic feel. His 1926 sound recordings of Black and Blue Bottom (1926), Stringin’ the Blues (1926), and 1967 video of his performance at the Dick Gibson’s Colorado Jazz Party, among many others, provide insights into what jazz scholars have described as “rhythmically incisive playing” (Cotro 84), “acute ensemble sense” (Giddins 150), and “luminous display of attacks and tempo plays” (Dietrich 35). What is more, the video footage illustrates not only his gregarious stage presence, but also his predominant use of the lower half of the bow to produce articulations that may contribute to the sense of “hardcore downbeats.” Examples of such articulations are clear in video clip #1 and video clip #2, which are from his 1967 performance. In both clips, note how Venuti’s body movements and down-bow accents near the frog enhance the verticality of the music and clarify the placement/location of the downbeats within the time-field. These vertical approaches to downbeats help to drive the music forward and suggest that Venuti’s clear conveyance of “verticality” may be one of the key attributes of his “hardcore downbeats.”

Although the genius of Venuti’s rhythmic feel cannot be reduced to any one technique or tendency in performance, these video and sound clips illustrate how Venuti created his signature “rhythmic vitality” (Dietrich 35).

78 It is important to note that the quality of the sound recording might have influenced Balakrishnan towards making this association. Although Balakrishnan did not explicitly comment on the audio quality as being an important factor in his selection, Downing did acknowledge that the “charm of the old recording sounds” did affect his decision (Downing #1).

79 His 1931 recordings of After You’ve Gone (sound clip #48) and his 1969 recorded performance of I Want To Be Happy (video clip #13) also demonstrate Balakrishnan’s notion of “hardcore downbeat.”
Although horizontal flow has been discussed thus far as a key indicator of “internal timing,” within the context of measures 122 to 133, it contradicts Copland’s articulation markings in both the violin and piano parts and does not convey the vertical dimensions of his writing. Close listening to sound clip #49, which presents Gordon and Copland’s performance from measures 122 to 131 of the *Ukulele Serenade*, reveals the subtle details in their performance that alludes to Venuti’s “hardcore downbeat.” Although the similarities between Gordon’s performance and Venuti’s playing style are not self-evident, sound recording #49 illustrates how Gordon and Copland’s performance came closest to conveying Venuti’s strong sense of verticality. For instance, sound clip #49 underlines how Gordon’s articulations and Copland’s rhythmic treatments are more effective in conveying the verticality in Copland’s melodic construction. Cross-referencing sound clip #49 with Figure 55 reveals how the violin’s articulations coupled with the early piano entrances reinforce the segmentation of his melody.

![Figure 55. Ukulele Serenade, mm. 122–131 (Copland): circled chords indicate Copland’s early placement of the chords and the vertical lines signify the “verticality” that is enhanced through Gordon’s articulations and Copland’s rhythmic treatments, as demonstrated in sound clip #49](image)

As vertical lines in Figure 55 indicate, the note “C” in the piano bass line as well the dotted eighth-sixteenth note figure in the violin’s melody strongly suggest that the music from measures 122 to 131 can be grouped into five parts. Close listening to sound clip #49 reveals how Copland’s early placements of chords heighten the sense of these groupings, enhancing the “verticality” of the music.
In contrast to Gordon and Copland’s performance, sound clip #50 presents a performance in which the performers’ approach to articulations and durations of notes lessen the sense of verticality indicated in the score:

Contrasting to Copland’s markings of *staccatissimo*, which clearly invoke manners of playing that accentuate sounds’ “verticality,” the violinist’s approach to the articulations is much more *legato* providing a more horizontal flow to the phrase. The players’ overemphasis of horizontality is especially clear in the circled sections of Figure 56; close listening to sound clip #50 reveals how the pianist’s elongations of the staccato accented notes coupled with the violinist’s connection between the quarter note and the ♫figure on the “F” lessen the sense of segmentation and verticality suggested in the score. These are likely some of the main reasons why Balakrishnan found Gordon and Copland’s performance to be similar to Venuti’s style and effective in conveying a sense of swing.

**Discussions of Bernstein’s *Serenade*, “Socrates: Alcibiades” movement**

In contrast to the selection results for Copland’s *Nocturne* and *Ukulele Serenade*, the panel unanimously selected violinist Hilary Hahn’s performance of Bernstein’s *Serenade* with conductor David Zinman and the Baltimore Symphony Orchestra (hereafter referred to as the
BSO). Downing noted that “this one was the hardest one because of the orchestration” (Downing Interview #1). He further explains, “when it is just the two people interacting, when it is just the violinist and pianist, to find the pocket together is easier than doing it with a conductor who is moving this massive machine around” (Downing Interview #1).\(^{80}\) Along with the orchestration, Bernstein’s use of jazz as an organic component of his style raises questions about whether awareness of extra-classical sensibilities in fact mean deviating from the notation. As in Copland’s *Nocturne*, Price questioned the appropriateness of applying a swing-informed approach in stating, “there are occasional jazz reference[s], but…I take Bernstein at his word that when he notates even notes he wants even eighths. … If he weren’t so clear with his notes and rhythms and if he was a lesser composer then I might say ‘yeah, I might swing here and there,’ but in this case, I would not” (Price Interview #3). Despite this opinion, Price along with Balakrishnan described Hahn’s and the BSO’s performance as “playing most in the pocket” and as “displaying groove,” indicating that the preferred recording documented performance sensibilities reflective of those common to swinging jazz (Balakrishnan #2, Price #2).

Furthermore, as in his assessment of Gordon and Copland’s performance of the *Ukulele Serenade*, Downing commented that Hahn’s “melodies chug along,” suggesting that the performers’ management of pulse and note durations were most compatible with Schuller’s notions of “sound’s equilibrium” out of all the sound recordings presented to the panel. Although the nature of the composition raises questions about the application of extra-classical performance sensibilities, the panel’s unanimous selection and their comments indicate that concepts pertaining to rhythmic playing most commonly associated with generating swing in jazz performances were still applicable and useful for interpreting this piece in an effective way.

**Rhythmic Accuracy: Maintenance of External Timing and Conveyance of Internal Timing**

Given that “polymetrical superimposition of irregular groupings on a regular rhythm” (Helgert 280) is one of the most important components of Bernstein’s conception of swing, indications in the score suggestive of such rhythmic operation offer places in which a swing-informed approach can be applied in performance. For instance, as discussed in Chapter Three, measures 108 to 117 showcase how the superimposition of melodic groupings on a *perceived* rhythmic

\(^{80}\) For more information on how instrumentation affects the performance of swing, consult Chapter Two.
infrastructure presents performers with the opportunity to enhance the sense of vital drive that is key to Bernstein’s rhythmic construction. Hahn and the BSO’s performance of this section as heard in sound clip #51 illustrates how maintenance of a steady pulse throughout the passage not only enhances the sense of internal timing, but also the feeling of vital drive suggested in the score. In measure 117, Hahn’s management of external timing allows the solo violin line to lead towards the cello and bass pizzicato and the timpani accent (circled in Figure 57). As indicated by the red lines in Figure 57, the last note of the violin line in measure 117 connects to the ffz in the timpani and bass.

Figure 57. “Socrates: Alcibiades” of Serenade after Plato’s “Symposium,” mm. 116–118 (Bernstein): Hahn’s and BSO’s demonstration of “internal timing” and the resulting collective sense of “vital drive” and rest in m. 117, as demonstrated in sound clip #51

Cross-referencing this figure with the sound clip illustrates how Hahn’s management of pulse in measure 116 reinforces the sense of internal timing between the solo violin and the various instrumental lines in the orchestra and corroborates Balakrishnan’s observation of “tighter groove” (Balakrishnan Interview #2). The resulting effect of this “tighter groove” is that even the rest in 117 is easily heard as a part of, rather than as a disruption to, the horizontal flow. As I
have indicated in Figure 57, as a result of Hahn and the BSO’s management of internal timing, the rest feels like a collective, silent pick-up to the subsequent musical material. The resulting effect of this is that the phrase is perceived to be longer, which enhances the sense of vital drive. The panel’s comments that the melodies had “a sense of rhythmic push” and exhibited a better “sense of rhythmic pocket” corroborate these observations, and support the assertion that Hahn and the BSO’s performance was more effective in not only displaying the inter-rhythmic ensemble relationship central to swing, but also conveying rhythmic environments more conducive to the sense of vital drive (Downing Interview #1, Price Interview #3, Balakrishnan #2).

While sound clip #51 presents a performance in which management of rhythms and pulse enhance vital drive, sound clip #52 highlights how the slightest ambiguities and deviations in rhythm and “external” timing mitigate Bernstein’s calls for rhythmic motion in his notation. Although the differences between the two sound recordings are subtle, in sound clip #52 rushing in the violin line is clearly discernible in measures 108 to 109 and 116 to 117. In both passages, inconsistency of the pulse reduces the sense of “internal timing” between the violin line and the various orchestral parts. Regarding this performance, Downing remarks, “the violinist pushed the beat and was really on top… he or she had that kind of rushy sound, and it ruin[ed] the pulse that the orchestra sets up” (Downing Interview #1). This “rushy sound” is especially evident in measures 116 to 117, in which the rushing of the 8th notes by the violinist disrupts the sense of horizontal connection between the solo violin line and the tambourine, cello, bass, and the timpani. Along with diminishing the sense of internal timing, the violinist’s rushing influences how the dotted quarter note rest is perceived within the context of the musical material. While Hahn and the BSO’s performance allowed the rest to function as a pick-up to the preceding musical material, the rest as heard in sound clip #52 provides a sense of closure to the phrase. Although such an interpretation is not incorrect per se, the fact that the sffz in measure 117 occurs on the 3rd eighth note of the measure and, therefore, functions as syncopation suggests that the rest should maintain a forward orientation. Given that the violinist’s management of rhythms does not enhance the vital drive evident in Bernstein’s notation, this performance can be argued to be less convincing in its realization of swing as conceptualized by Bernstein.
Equilibrium of Sound’s “Verticality” and “Horizontality”

While comparing performances of measures 108 and 117 spotlights how performers manage external timing and convey internal timing, sound clips of measures 125 to 134 present violinists’ varying degrees of success in balancing sound’s verticality and horizontality. As in his assessment of Gordon and Copland’s performance in sound clip #48, Downing’s comment that Hahn’s performance of the melody “just chugs along” suggests that her performance similarly demonstrated sound’s “equilibrium” in Schuller’s sense. Comparing sound clip #53, which presents Hahn’s performance, with sound clip #54 (featuring another violinist) reveals how Hahn’s executions of the three-note chords and the preceding “B” are more effective than those of the other violinist in accentuating the “horizontality” of the musical line.81

Figure 58. “Socrates: Alcibiades” of Serenade after Plato’s “Symposium,” mm. 123–137 (Bernstein): Hahn’s articulation and management of note durations that enhance sense of “vital drive” in mm. 131, 133, and 133, as demonstrated in sound clip #53

---

81 Given that the sound recording analyses only pertain to the violinists’ managements of sounds, Figure 58 presents a piano reduction of the original orchestral score.
As Figure 58 illustrates, Hahn’s performance in measures 129, 131, and 133 provides a sense of connection, which enhances the perception of forward momentum throughout the duration of the rests. In contrast, the violinist in sound clip #54 features a vertical approach to the triads, which facilitates in providing a sense of disjunction between the accented triad and the preceding “B”. The result of such execution (in which the rests are treated in a literal sense) is that the horizontal flow or the horizontality of music is discontinued at each one. Cross-referencing sound recording #54 with Figure 59 makes clear how the violinist’s manner of accenting the chords enhances the verticality of the phrase:

![Figure 59. “Socrates: Alcibiades” of Serenade after Plato’s “Symposium,” mm. 116–117 (Bernstein): segmented phrasing that results from the violinist’s approach to articulation, as demonstrated in sound clip #54](image)

The resulting effect of this performance is that there are segmentations to the musical phrase, which are illustrated in Figure 59 with black vertical lines; in contrast to Hahn’s performance, the violinist in sound clip #54 segments the phrase on each of the eighth note rests. In short, this comparative analysis highlights how Hahn’s treatment of articulation and note durations more
closely demonstrates the Schuller’s notion of equilibrium and helps explain (and corroborate) the panel’s unanimous assessment that her performance was the most successful out of the recordings they evaluated in evoking a sense of swing.

Along with demonstrating articulations that are more common in jazz, Hahn’s performance of measures 125 to 134 is more convincing than the others in realizing Bernstein’s marking of *poco pesante, ma gaio*. As discussed in Chapter 2, *poco pesante, ma gaio* invokes two different feelings of pulse and contrasting approaches to performance. As comparing sound clip #53 with sound clip #54 made clear, the violinist in sound clip #54 played in a manner that predominantly accentuated the *pesante* quality of Bernstein’s instruction through showcasing sharp ‘t’ articulations on the three-note chords. In comparison, Hahn’s performance featured in sound clip #53 more effectively conveys a balance between the *pesante* characteristic of the music while simultaneously providing an uplifting quality representative of Bernstein’s indication of *ma gaio*. In sum, Hahn’s performance is not only more reflective of swing-informed approach to performance, but also more effective in demonstrating Bernstein’s high-level intent of expressing the rhythmic feel of *pesante, ma gaio*.

**Conclusion**

While the consistencies in the panel’s selections allowed for the identification of performance sensibilities that contributed to making the notated music swing in a more jazz-like way, the differences in their selections (in the two pieces for Copland) highlighted the subjectivity of swing in terms of perception and effect. As discussed in Chapter Two, the differences in the sound recordings along with the panel members’ various reasons for why they preferred specific recordings indicate that dogmatically detailing and demanding a specific recipe for a swing-informed approach is not only difficult but also inappropriate. However, the sound recording analyses show that the preferred sound recordings did share several common performance attributes. This indicates that despite the subjectivity of swing, there are fundamental processes that, when carefully applied to the performance of notated, swing-informed music, can help performers swing more and better realize the composer’s high-level intentions.

Analysis of sound recordings coupled with the panel’s comments reveals that the performances that the panel felt to swing more included one or more of the following processes: maintenance of steady pulse (external timing), rhythmic accuracy, displays of participatory discrepancies, and
stylistic similarities to jazz performers. Even slight variations in rhythms were found to disrupt the conveyance of “internal timing” in ensemble playing, supporting Price’s assertion that steadiness in pulse and rhythmic accuracy were essential to the demonstration of “playing in the rhythmic pocket” (see Chapter One). Furthermore, maintenance of rhythmic accuracy in performance was compulsory in conveying equilibrium, in which, as Schuller theorized, horizontal flow and clear sense of steady pulse are simultaneously perceived to engender a sense of swing. Along with steady pulse and rhythmic accuracy, displays of participatory discrepancies and stylistic similarities to jazz performers were found to be key elements in the preferred performance of Ravel’s *Blues* and Copland’s *Ukulele Serenade*. This supports my assertions in Chapter One that even in the performance of notated concert pieces, deviations from the score in performance can enhance the sense of swing that is suggested in the composers’ notations. Although some may argue that any deviation and addition to the score are violations of the composer’s intent, cross-referencing sound recordings with the score illustrated how participatory discrepancies were effective in realizing Ravel’s and Copland’s “high-level” intent. In the case of Ravel, Winthers' addition of pick-ups in the pizzicatos and Romaniuk’s triplet-y interpretation of the rhythms were effective in realizing Ravel’s intent of evoking a rhythmic and bluesy feel typical of jazz of the early 1920s. Similarly, in the case of Copland, Gordon’s vertical approaches to articulation, suggestive of Venuti’s “hardcore downbeats,” evoked a sense of swing that compelled Balakrishnan to compare the recording to swing of the 1920s and 1930s. In short, while maintaining steady pulse (external timing) and rhythmic accuracy were foundational to the swing documented in all the preferred sound recordings, displays of participatory discrepancies and stylistic similarities to jazz performers were found to be important dimensions of the performances in only two of the pieces, suggesting that deviations from the score are useful insofar as they enhance a composers’ “high-level” intent in evoking a particular kind of swing.

This last point is evidenced by the fact that greater display of participatory discrepancies and stylistic allusions to jazz in performances did not necessarily guarantee swing or the right type of swing in performance. Although displays of jazz performance sensibilities were important criteria in the panel’s selections for Ravel's *Blues* and Copland’s *Ukulele Serenade*, their preferences for the other pieces suggested that there was not a clear correlation between increased deviation from the score and the evocation of a swing. Price’s general critique that
some classical musicians (in the presented recordings) sounded “self-conscious about the fact that they are playing something with a non-classical effect so they are kind of seeking out opportunities to do something not classical, and it unfortunately has an air of caricature,” indicates that in some of the unselected sound recordings the players distorted rhythms to exaggerate suggestions of swing and added extra-classical performance sensibilities that were inessential to realizing the composers’ intentions or conceptualizations of swing in performance (Price Interview #2).

This finding raises the most important question regarding the application of a swing-informed approach in performance: When and to what degree should performers apply it? As stated before, while steady pulse and accuracy in rhythm were found to be the basis for any performance that aims to evoke a sense of swing, applications of participatory discrepancies and jazz violin performance techniques were found to be conditional upon the nature of the composition as well as the intent of the composer in question. Consistent with discussions in Chapter Two, the panel’s selections and comments highlighted how each composer’s different relationships with jazz and methods of referring to its various elements called for different types and degrees of swing-informed approaches in performance. For instance, in Bernstein’s piece, the use of an entire orchestra along with his “spiritual” use of jazz elements makes the application of swing-informed approach less appropriate than in the other jazz-inflected works discussed. In contrast, Ravel’s Blues exemplified his “minute stylization” of jazz and showcased his borrowing of jazz elements to create a bluesy feel to his music. Because Ravel’s method of appropriation and his “high-level” intent invoked jazz and blues performance sensibilities, deviations from the score are more appropriate, and some may argue even necessary. Despite being composed by the same composer, the differences in rhythmic language between Nocturne and Ukulele Serenade called for different approaches to applying a swing-informed approach in performance; while the Lento moderato tempo in the Nocturne suggested that the piece was not intended to swing in any strict jazz sense, the Allegro Vivo tempo marking coupled with the bi-metric rhythmic constructions in the L’istesso Tempo sections of the Ukulele Serenade suggested that application of jazz performance sensibilities was more appropriate. In

82 For more information on Bernstein’s “spiritual” uses of jazz elements in his compositional language, consult Chapter Two.
sum, the panel’s evaluation suggests that a key part of any use of a swing-informed approach to interpretation is taking into account the instrumentation and the composer’s intent in determining the extent of applying a swing-informed approach in performing these jazz-inflected pieces.

Although this study underlines some processes in performance that were foundational to creating a sense of swing that appealed to a panel of experienced jazz musicians, it also suggests that a formulaic approach to performing jazz-inflected compositions cannot account for the subjectivity of swing, the complex issues surrounding composer’s intent, and personal taste. Rather, performing jazz-inflected composition requires musicians to learn about the piece at hand vis-a-vis swing and then apply their knowledge of the performance conventions that the composer references to devise their own approaches to applying a swing-informed approach in performance.

Moreover, although the sound recording analyses did highlight common attributes in performance that the jazz experts found to be useful in conveying swing, they were not the result of drastic deviations from WAM performance traditions. Rather, the swing that the various performers created in their interpretations was a consequence of informed choices that suggested at least some awareness of jazz performance sensibilities. Certainly it is possible that the various performers did not have a studied or even intuitive knowledge of jazz. However, they were able to perform in a manner that was convincing to a panel of experts. In any case, the comments from the panel further indicated that subtle choices rather than novel strategies in performance were foundational to sounding swing-informed. I would argue that a powerful basis for making such choices is exactly the kind of inquiry that I see as foundational to what I am calling a swing-informed approach. Building on this understanding, Chapter Five will discuss technical approaches common to jazz violin performance that could be incorporated when realizing notated scores of swing-inflected music.
Chapter 5
Techniques for Swing-Informed Violin Playing

The previous chapter highlighted key aspects of performances that led to the conveyance of an appropriate sense of swing. In so doing, it pointed to several interpretive choices that promise a solid foundation for a swing-informed approach. This chapter introduces violin techniques that can be utilized to produce some of the characteristics cited as central to the more swinging performances of jazz-inflected compositions identified by the panelists. Because such compositions strive to convey the rhythmic dimensions and sonic parameters of swing, these techniques take into account performance techniques from jazz violin as well as more general approaches to rhythmic execution that may be effective in conveying a given composer’s conceptualization of and primary references for swing. It is important to note that this chapter is not intended to determine “correct” methods of playing the jazz-inflected compositions but instead aims to suggest practical ways that jazz violin playing techniques can be applied in performance to better convey the subtle aesthetics and rhythmic qualities central to swing. Thus, these techniques take into account the hybrid nature of jazz-inflected Western Art Music compositions and compensate for the fact that some techniques in the classical tradition do not translate well into engendering swing even as they remain the foundation for performing such music.

Underlining the mismatch between classical performance techniques and swinging, musicologist Johannes Dietrich states, “the careful, old-world training required to attain proficiency” within contexts of WAM “stifle[s] the sense of musical freedom and creativity so essential to jazz” (Dietrich 7). Jazz violinist Stuff Smith corroborates this assertion in stating that “concert violin was a different feeling, and it was too stiff for me” (Barnett 12). Given this perceived incompatibility, it is not too farfetched that performing jazz-inflected compositions should utilize some performance techniques that are particular to jazz violin playing.

Yet, despite the separation of these two traditions of violin playing in the discourse of academics and performers, the application of jazz violin techniques in performing concert pieces is actually not especially radical. One of the main reasons for this is that the mechanics of sound production, as informed by the instrument’s morphology, have dictated fundamentals in playing that remain
consistent despite marked differences in the sonic concepts defining jazz and classical music. Musicologist Vincent Cotro elaborates on this point in stating:

…the way the violin or the bow is held, the sound produced by alternating down-bows and up-bows—these requirements need not differ from one player to another. They are integrated into a body of common practice and guidance within the standard educational framework for classical violin. This kind of homogeneous approach in jazz is not seen with wind instruments such as the saxophone, trumpet, or trombone, nor even with string bass, piano, or guitar.

(Cotro 83)

The link between classical and jazz violin playing is even more clearly illustrated in many jazz violinists’ educational background. For example, Joe Venuti (1903-1978) studied with Thaddeus Rich, who was the concertmaster of the Philadelphia Orchestra; Eddie South received training at the Conservatory of Chicago and then studied with Petrowitsh Bissing at the Chicago College of Music, and Jean-Luc Ponty studied at the Conservatoire de Paris (Cotro 84, Lieberman 92). These backgrounds illustrate how even the most seasoned and celebrated jazz violinists received initial training in institutions with pedagogues deeply rooted in the European tradition.

Although these jazz violinists reflect the prevalence of training within the European performance tradition, it is important not to overstate the influence of European instrumental techniques in playing jazz. Cotro also acknowledges the divergence of jazz violin playing from the European tradition stating, “[a] jazzman affirms an instrumental technique distinct from that of his associates in the European tradition” (Cotro 83). Although the degree of independence differs depending on who one asks, the acknowledgement that each of the two traditions entails a “distinct” compendium of techniques warrants the identification of performance approaches that are specific to jazz. To do so, it is necessary to explore a wide variety of jazz playing styles to identify some fundamental principles of performance that are shared amongst most, if not all, jazz violinists.

There are a number of jazz violinists who could have been selected as sources for this study. Joe Venuti (1903-1978), Stéphane Grappelli (1908-1997), and Stuff Smith (1909-1967) were selected not only because of their contributions in codifying certain tendencies in jazz violin playing, but also because of their tremendous influence on jazz violinists of today. In the next
section, I discuss some of their more influential approaches. A media portion, which includes audio and visual samples of their performances, will supplement the discussion to better pinpoint dimensions of their playing style and technique that facilitated them in generating swing.

Accessing a Different Sound World: Sonic Emulation of Horns

Regarding the violin, jazz historian Stanley Dance states, “you can swing more on a violin than on any instrument ever made. You’ve got all those octaves on the violin. You can slur like a trombone, play staccato like a trumpet, or moan like a tenor” (Hentoff 159). Along with the swinging potential of the violin, this quote highlights the primacy of brass instruments in typifying the sonic concepts and characteristics of jazz. Similar to the way violin playing during the Baroque era was developed to emulate the voice, violin playing in jazz developed largely through the process of imitating brass instruments. Evan Price elaborates on this process in stating, “It is important to keep in mind that we are basically following the footsteps of horn players, woodwinds and brass” (Price Interview #3). Furthermore, legendary jazz violinist Stuff Smith further emphasizes this point when explaining the logic behind his conceptualization of sound: “I divided the violin up… the E and the A strings were the brass and the D and the G strings the reed” (Barnett 14). The resulting effect of this emulation was the use of sonic palettes that are uncommon to the sound world of classical violin playing; Price corroborates this assertion in stating, “I would say that the spectrum [of sound] in jazz is a little bit broader…the sound spectrum includes ghost notes which is to say they’re hardly notes at all to very dense, slow pressed kind of a thing. And [this] is an echo of a brass instrument or a reed instrument” (Price Interview #1). Along with broadening the spectrum of sounds, this process of imitation naturally induced changes to classical violin techniques that would serve to not only compensate for the differences in the violins’ and wind instruments’ mechanics of sound production but also facilitate in creating subtle sonic details central to swing.

Along with the emulation of the horns, the frequent use of amplification in jazz violin playing allowed for changes in playing technique. Classical violin playing technique is often dictated by the desire to produce sound that can be heard unamplified in a large hall, and at times even over
a full orchestra. This dictated certain approaches that maximized sound production. However, ever since Smith pioneered the use of amplified instruments in the 1930s and set the precedent for most jazz violinists of the latter 20th century, electrical amplification has allowed jazz musicians to concentrate on lower volume details of timbre and articulation. Given that one of the key characteristics of swing are subtle articulations, it is evident that along with the aim to emulate horns, the use of amplification in jazz performances allowed violinists to explore wider spectrums of articulations that engendered variations to traditional, classical violin techniques.

Interestingly, these variations in technique did not bring about the development of “schools” or uniform approaches to jazz violin but resulted in more individualized ways of addressing the technical gaps that exist between the sound concepts of jazz and the European tradition(s) of violin playing. For this reason, there is very limited literature pertaining to jazz violin techniques. While “jazz violin playing” does encompass many different styles and technical approaches, the common goal of emulating wind instruments engendered some consistencies in technical principles. For instance, analyzing the playing of Joe Venuti, Stuff Smith, and Stéphane Grappelli reveals that although their styles were all distinct, they exhibited five common technical elements in performances: 1) predominant use of short bows in the upper half of the bow; 2) frequent use of slurs; 3) greater use of up bows and bow speed as means for articulating; 4) more wrist pronation and use of fingers than in classical violin playing; and 5) sparing use of vibrato.

Technical Attribute #1: The Predominant Use of Short Bows in the Upper Half

The most discernible of all the tendencies shared among Venuti, Smith, and Grappelli is their predominant use of shorter strokes in the upper half of the bow. Furthermore, of the five core technical attributes mentioned above, only isolated use of the upper half of the bow was included in Venuti’s etude system titled Violin Rhythms: A School of Modern Rhythmic Violin Playing (1937). As a general rule for practicing the rhythmic exercises, Venuti writes, “the exercises should be practiced leggiero with short, energetic strokes, using not more than nine inches of the top of the bow” (Noordijk 4). Price explains the advantages of isolated use of the upper half of

---

the bow, noting that “[it] allows for quick impulses of the index finger and facilitates in faster bow changes. [Furthermore,] after the impulse, there is no pressure but constant motion, which creates a fuzzy sound after the initial impulse. All these attributes in playing in the upper half is to give advantages to the violinist to sound like a horn player.” (Price Interview #5)

Smith, who Glaser considers as “the most swinging of the early violin players,” corroborates Price’s assessment in stating, “I don’t use the full bow- only the end, about six inches. The reason for that is you can slur more easily, the way a horn would, and you can get more warmth. Using the end of the bow, moreover, causes you to bow the way you breathe. I mean it’s my equivalent of a horn player’s breath control.” (Stuff Smith quoted in Glaser 16)

Smith’s solo at the Art Ford’s Jazz Party (1958) displays how the predominant use of shorter bow strokes not only facilitates in emulating the sounds of the horns but also helps in creating phrasing patterns common to jazz horn playing. For example comparing Smith’s solo from 9:01 to 9:47 (video clip #3) with those of tenor-saxophonist Georgie Auld (heard at 2:05) and trombonist Urbie Green (heard at 3:53) reveals similar tendencies toward short phrasing among all three soloists. Although Smith does venture into the lower half of the bow on a few occasions to give certain notes more emphasis, his overall tendency in bowing facilitates in producing the “dense” and “direct” sounds and phrasing indicating that his style was “horn-inspired” (Glaser Interview #1).

Technical Attribute #2: Frequent Use of Slurs

Along with “causing you to bow the way you breathe,” the predominant use of shorter bowings in the upper half also facilitates the frequent use of slurs. In addition to generating timbres that Smith refers to as “warmth,” slurs are essential to jazz playing because, as Balakrishnan remarks, “slurs are the easiest ways to give natural accentuations” (Balakrishnan Interview #3). Although there are no set rules on how to slur within jazz contexts, they most often occur “in pairs across the beat” (Price Interview #1). This general tendency allows the bow changes to occur on the weak parts of the beats, providing a sense of lift to the melodic line, which enhances the sense of rhythmic flow. This effect can be heard in Joe Venuti’s performance at the “Colorado Jazz

84 Link to Art Ford's: Jazz Party (1958)
Party” in 1967, during which he slurs to give the melodic line propulsion towards the start of each of his choruses (video clip #4). Venuti’s slurs and their effects are particularly clear when viewing video clip #5, which presents Venuti’s playing from 1:40 to 1:43 in slow motion (video clip #5). A similar approach to slurring can also be observed in performances featuring Stuff Smith. During his performance of “Stompin’ at the Savoy” on Ford’s Jazz Party (1958), Smith, like Venuti, uses slurs to add rhythmic variety and interest to an otherwise constant stream of eighth notes (video clip #6). Although the slurs and their rhythmic effects are hard to detect in performance tempo, slowing down parts of his solos, as video clip #7 presents, highlights how slurs engender rhythmic lift that helps the music swing.

While Venuti’s and Smith’s performance styles highlight the predominance of two-note slurring across the beats, it is certainly not the only type of bowing that elicits a sense of swing. For instance, jazz violin etudes designed to teach free bowing during improvisations most often feature variations of this technique. In Price’s “Etude #2,” he recommends practicing using these bowings as guidelines in playing his harmonic progressions:

![Figure 60. Bowing suggestions from Evan Price’s Etude #2](image)

As these prescribed bowings make clear, bow changes on the weak parts of the beats are encouraged and slurring in pairs is not fixed. Interestingly, various bowing and slurring patterns are suggested in Venuti’s method book. Illustrating how fundamental slurs are in jazz violin playing, all slurring patterns are introduced in Part I: Section I and II of Venuti’s etude system. For developing fluency in syncopating and free bowing, Venuti prescribes the following bowings and syncopated rhythms:

![Figure 60a](image)
![Figure 60b](image)
![Figure 60c](image)

![Figure 60d](image)
![Figure 60e](image)
![Figure 60f](image)
Similar to Price’s “Etude #2,” the objective of such studies is not to prescribe bowings but to provide guidelines for the development of an individualized approach to bowing in service to creating a more unique playing style. The culmination of such study is clear in the performances of Grappelli, whose propensity for churning out “melody after melody in an unstoppable flow” dictated a bowing style contrasting with that of Venuti and Smith (Bruckner 3067). For example, comparing Smith’s and Venuti’s clips with those of Grappelli clearly reveals that Grappelli was much more comfortable with slurs spanning several beats. About this tendency in Grappelli’s style, Price remarks, “there are more long slurs than we like to acknowledge often. If you take a close look at Stéphane Grappelli’s recordings and really try to...track the bowings you hear longer slurs” (Price Interview #1). Although the use of longer slurs can be attributed to the tempo, examples of slurs spanning several beats can also be heard in his performances of ballads such as his 1986 rendition of “It Had to be You.” At 5:56, Grappelli showcases his highly individual and recognizable style, which not only features flurries of short notes but also presents his tendency for slurring through the beats rather than across them (video clip #8). Comparing video clip #4 (featuring Smith) with video clip #8 illustrates how Grappelli shows greater tendency than Smith toward stringing together multiple notes with one bow stroke. While comparing Grappelli’s tendencies in slurring with those of Smith and Venuti underlines their individualized approaches towards bowing, the use of slurs to provide the melodic line a sense of “lift” and rhythmic unevenness central to swing is a technical approach that is consistent not only in the playing styles of the selected violinists but also amongst many contemporary jazz violinists.
Technical Attribute #3: Greater Use of Up Bows and Bow Speed as means for Articulation

Since articulations are critical features in sound onsets, manners of articulation that reflect accentuations common to wind instruments become important for helping jazz violin performances swing. While slurring offers the easiest ways for violinists to give natural accentuation, the greater use of up bows and speeds as means for articulations allow violinists to produce greater variety of articulations. Contrary to the general use of down bows for emphases in classical violin performance, the greater use of “rounder” accentuations in jazz calls for more frequent use of up bows. Jazz violinist Didier Lockwood highlights this difference in stating, “the up bow is most important, and this is difficult for classical players, who are taught that music is all about the down bow” (Woodall 52). Another feature of articulating within the context of jazz violin performance is the greater emphasis of speed rather than pressure in initiating sounds. Unlike martèle strokes common to the performance of WAM, jazz violin playing downplays the “catching” or “pinching” of the string via pressure and emphasizes the use of bow speed, more specifically, fast bow changes to enunciate changes in bow direction. Price emphasizes this subtle distinction in stating, “I think it is problematic if you ask a [classically-trained] violinist to put [an] articulated accent because that necessitates stopping the bow and restarting it like a martèle, and we don’t want the break. We want total connection right before it. That is why a bow speed accent is more effective. It is a faster bow change.” (Price Interview #4).

Although infrequently discussed, “bow speed accents” or “départ” strokes are briefly explained in Ivan Galamian’s Principles of Violin Playing and Teaching (1962), in which he writes, the “départ” stroke requires “the bow to be placed on the string with the same pressure that will be used for the actual stroke, not more, not less. The note is then attacked with the immediate use of the same speed of stroke that is to be applied throughout the sounding of the tone. The effect will be a distinct, consonant-like articulation” (Galamian 85).

85 Balakrishnan corroborates Lockwood in stating that a “common mistake seen in classical musicians is “playing the downbeat too strongly” creating a sound that is stiff” (Balakrishnan Interview #1).
Although inclusion of this instruction in Galamian’s book evidences the use of bow speed accents in the performance of WAM, the brevity of Galamian’s commentary relative to his instructions on other bow strokes, such as the *martéle*, suggests their limited use in the classical context. While bow speed accents generally receive cursory explanations in classical violin treaties and pedagogical texts, observations of jazz performers illustrate their wide usage within the context of jazz violin performance. For instance, revisiting Smith’s solo during his appearance on *Ford’s Jazz Party* (1958) illustrates how fast direction changes in the upper half of the bow produce immediate onsets in sounds without the “biting” articulation common to bow strokes in WAM (video clip #9). As video clip #9 illustrates, use of bow speed rather than the weight of the whole bow-arm-hand unit plays a critical role in producing rhythmic columns of sound, which Price describes as, a “saxophone sound, a swarm of bees sound” (Price Interview #3). In sum, bow speed accents are an important dimension of jazz bowing that facilitate in producing rhythmic impulses in playing that is central to the generation of swing.

**Technical Attribute #4: Greater Degree of Wrist Pronation and Use of Fingers**

Another critical attribute of jazz bowing that is consequent of jazz’s sonic demands is the greater pronation of the wrist and use of fingers in articulating. Although these technical points are also standard in classical violin bowing, the tendencies of jazz performers toward playing on the upper half of the bow engender greater degrees of wrist pronation and more frequent use of fingers. Price highlights this in stating, “I tend to pronate a little bit, more than what is recommended in classical contexts…This way your angle has changed; there is a natural accent that occurs, which is desirable” (Price Interview #3). Grappelli’s solo during his appearance at the 1984 Montreal Jazz Festival confirms Price’s approach to wrist positioning and demonstrates how pronation of the wrist allows for subtle enunciations at the bow changes.86 As Grappelli demonstrates at 1:41, the bent wrist coupled with the extended pinky finger, both of which indicate wrist pronation, allow him to play in a relaxed, *legato* style that features subtle accentuations common to jazz performances (video clip #10). Similarly, Venuti’s 1977 performance on *The Dick Cavett Show* illustrates the greater use of the fingers in producing

86 Link to Stéphane Grappelli: Montreal Jazz Festival (1984).
accentuations that make his lines sound like those from wind instruments.\textsuperscript{87} Regarding the use of fingers in jazz bowing, Lockwood states, “the wrist and arm follow the finger” (Woodall 52). Corroborating Lockwood’s generalization, slowing down parts of Venuti’s performance reveals how active his fingers are during bow changes and articulations. Video clip #11 presents 1:51 of Venuti’s solo and clearly shows the fingers leading changes in bow direction (\textit{video clip #11}). Contrary to Galamian’s instructions on classical bowing technique that underline the central role of the elbow in anticipating bow changes, Venuti initiates sounds mainly using his fingers, which move before the rest of the wrist-arm unit.\textsuperscript{88} The resulting effect of such technique is the production of subtle enunciation during bow changes, which, as in Grappelli’s performance, help facilitate the production of rhythmic impulses that help his playing swing. The comments of contemporary jazz violinists in conjunction with videos of legendary players demonstrate clearly how greater pronation of the wrist and use of the fingers on bow changes/articulations help in emulating the articulatory profiles common to brass instruments.

\textbf{Technical Attribute #5: Vibrato}

Along with different approaches to bowing, jazz’s sound conventions, which are, to be sure, very broad and varied, also call for subtle changes to how vibrato is used when compared to WAM contexts. While the physical processes of performing vibratos are similar to those within the classical violin tradition, examinations of the selected jazz violinists not only reveal a much more sparing use of continuous vibrato but also illustrate their tendencies to add oscillations predominantly at the ends of notes rather than at their beginnings. Revisiting Bessie Smith’s vibrato in the “Downhearted Blues” and Coleman Hawkins’ solo in “Body and Soul” illustrates jazz performers’ strategic use of vibrato and their proclivity for intensifying vibrato at the ends of notes.\textsuperscript{89} As Price states, “in jazz, the vibrato is different than in classical music... This is going to be an over generalization but in classical music we often [use] vibrato to create drama [or] to

\begin{flushleft}
\textsuperscript{87} Link to Jon Venuti on \textit{The Dick Cavett Show} (1977).

\textsuperscript{88} Galamian’s explanation on the “out-in” and “in-out” motions the bow arm highlight the important role of the elbow in “anticipating the action” of the bow change (Galamian 111).

\textsuperscript{89} For more information on these sound recordings, consult Chapter Two.
\end{flushleft}
enhance tension. In jazz, I think the opposite is true… where tension is created by removing the vibrato… When we bring a vibrato in, it's the release of the tension.” (Price Interview #1).

Reviewing Smith’s improvisation in “Bugle Blues” and Grappelli’s solo performance of “How High the Moon” helps demonstrate how tension is heightened through delayed onsets in the vibrato and its omission. In the case of Smith’s solo, it is clear how his management of vibrato enhances the sense of rhythmic propulsion (video clip #12). In contrast, Grappelli exemplifies how vibrato facilitates in providing a more relaxed, laid-back rhythmic feel and “intimate” sound profile at ends of phrases (video clip #13). As these video clips make clear, particular uses of vibrato within jazz violin performance are an important means for creating, what Price calls, “blooms in the sound” that mimic the sounds of wind instruments. Although the mechanical and technical approaches to vibrato in jazz violin performance do not differ from those central to classical violin playing, their placement at the end of the notes plays a subtle but important role in accentuating the rhythmic ebb and flow central to swing.

Conclusion

In this chapter, I have outlined five technical attributes of jazz violin playing that differ from classical approaches to the instrument. As my discussion of these differences illustrates, the differences in the various techniques are not radical, but rather all stem from the pursuit of different sonic aesthetics, namely the emulation of horns as they are played by jazz musicians. This goal engendered the development of violin playing styles unique to jazz and necessitated subtle changes to classical violin playing techniques.

Given that the technical approaches to jazz and classical violin playing are not drastically different, an argument for careful attention to jazz performance sensibilities in the performance of jazz-inflected compositions becomes increasingly convincing. This also suggests that successful application of a swing-informed approach to create performances that swing appropriately is all the more attainable. Some examples of such applications were, in fact, discussed in Chapter Four. For instance, Winthers’ conservative use of vibrato in his performance of Ravel’s “Blues” is a case in point of how classical performers can and have already applied
jazz performance sensibilities when performing jazz-inflected compositions with appealing results.90

However, as discussed in Chapter Four, the individual nature of swing and the subjectivity of interpretation vis-a-vis performing with an appropriate sense of swing in a Western Art Music composition (or even in a jazz context) make it impractical, and indeed, misguided, to attempt a dogmatic recipe for what, when, and to what degree jazz playing techniques should be applied in the performance of jazz-inflected compositions. For this reason, the list of the most common tendencies in jazz violin playing presented in this chapter is intended to help performers demonstrate jazz performance sensibilities that are central to their own swing-informed approach. In other words, how and to what degree these techniques ought to be featured in performances will ultimately be up to the individual performers. The results, then, will likely be a subject of ongoing debate, but efforts to perform jazz and blues inflective music in a swing-informed way also opens up new avenues of creativity for performers and, hopefully, fresh takes on the music for the listeners.

90 It is important to note that Winthers’ use of the vibrato is not the only examples of how technical approaches common to jazz have been applied in the performance of the swing-inflected compositions. Although this particular example was the most obvious example of a performer utilizing a jazz technical approach, Chapter Four presents further instances when jazz playing techniques were showcased in the sound recordings.
Chapter 6
Conclusion

The main objective of this dissertation was to study how three prominent art music composers have tried to express swing in the selected pieces and to consider how violinists might approach such music through a swing-informed approach. While certain techniques were identified as facilitating swing in performance, a key aspect of a swing-informed approach was determining how it can be applied in performance to take into account each composer’s particular relationship with swinging music (e.g. jazz) and method of notating its rhythmic nuances. Interviews with experts coupled with my own analyses indicated that dogmatically determining “rules” for a swing-informed approach could not account for the subjectivity of swing and that historical/contextual study coupled with sound recording and score analyses can pave the way for performers to make their own well-considered choices when performing jazz-inflected compositions.

An overview of key literature on swing in Chapter One showed consensus amongst scholars that swing is too subtle to be accurately captured via notation. Empirical and processual methods for analyzing swing problematized the standard manner of notating it, and emphasized the centrality of microrhythmic playing to swinging performances. Despite the inefficacy of notation in encapsulating many of swing’s subtleties, Ravel, Copland, and Bernstein nevertheless tried to evoke swing in their jazz-inflected compositions, raising questions about how performers should interpret their notations most effectively. At issue are matters of composer’s intent—adherence to the score and conveying swing in performance.

Presenting the first step toward what I call a swing-informed approach, Chapter Two emphasized the importance for performers to be familiar with the sounds and aesthetics of relevant swinging music to gain some understanding of what swing sounded like to the composers. The chapter also asserted the importance of understanding each composer’s individualized methods of writing swing in their jazz-inflected compositions. Analyses of jazz sound recordings contemporaneous with each composer and an overview of literature pertaining to each composer’s view on jazz showed that each one conceptualized swing differently, leading to the conclusion that approaches to performing the music should also differ.
Based on analysis of music that likely exemplified the composers’ references for jazz and blues, Chapter Three identified key aspects of their rhythmic language that was central to their concepts of swing. In other words, I deduced which attributes of swing the composers alluded to in their pieces and tried to evoke in the scores. In this way, I demonstrated a key aspect of applying a swing-informed approach to performing their jazz-inflected compositions.

While Chapter Three provided insights into each composer’s notation of swing, Chapter Four examined commercially released sound recordings of the selected compositions with the aim of determining performance sensibilities that contributed to making the music swing in a more jazz-like way. By asking a panel of jazz violinists to evaluate the various performances and situating their evaluations in relation to my own analyses of the recordings, I noted that maintenance of a steady pulse, rhythmic accuracy, the addition of participatory discrepancies, and the display of jazz stylistic features were instrumental in enhancing the sense of swing in the preferred performances. Interestingly, the panel’s comments revealed that the addition of extra-classical performance sensibilities befitted only two of the favoured performances. This corroborated conclusions in Chapter Two that a composer’s conceptualization of swing and attitudes toward incorporating it should ultimately determine how a swing-informed approach is applied in performance. In other words, there are instances when trying to play too much in a jazz-like manner does not serve the music well. Though the panelists were largely in agreement in their opinions, a few inconsistencies in their preferences highlighted the fact that swing is ultimately highly subjective. This helped further the argument for a flexible rather than a formulaic swing-informed approach. For this reason, rather than trying to codify a method and related techniques, this dissertation instead lays the groundwork for helping performers understand and transfer the subtleties of swing into performances of swing-inflected compositions. As the panel’s preferences suggest, there are times when close adherence to the notation is most appropriate. However, in some instances, well-considered and subtle deviations from certain markings, usually expressions of the composer’s low-level intentions, are especially effective in helping a performer realize “higher-level” intentions of the piece.

Given that my swing-informed approach is not intended to be a manual for performing jazz-inflected compositions, Chapter Five took inventory of common tendencies in jazz violin playing. This provided the groundwork for violinists who, drawing on analytical approaches
illustrated, might wish to apply such playing techniques in performances of the selected compositions and other jazz-inflected concert pieces.

Implications of this Dissertation

The swing-informed approach presented in this dissertation is a step towards allowing classical performers to bridge the stylistic differences between WAM and other genres of music while also honouring composers’ “high-level” intent. Although the swing informed approach addresses the application of jazz performance concepts and sensibilities in the performance of concert pieces that draw on swing, similar methods could be utilized for performing compositions that draw on other kinds of music. As my discussion suggests, twenty-first-century classical violinists should inform themselves about kinds of music beyond the Western Art Music canon. This is becoming increasingly critical as the listening public and many art music composers increasingly embrace stylistic pluralism and musical hybridity.

Increased variety in everyday musical life, further, points toward the need for revamping the curricula of institutions that train musicians. Higher education in music typically makes Western tonal theory and musicology compulsory, while designating the study of musical traditions and concepts beyond the scope of WAM as electives at best intended to supplement the core studies but often treated as distractions. In the conclusion of his dissertation “The Confluence of Jazz and Classical Music from 1950 to 1970,” pianist and composer Clarence Stuessy alludes to this segregation in music curricula and points to its dire consequence in stating that: “true evaluation of confluent works…will not be reached until the barriers [between jazz and classical styles] are broken down in society in general and music education specifically” (Stuessy 462).

Interestingly, while universities and conservatories typically reinforce the boundaries between WAM and other music traditions, institutions beyond the confines of traditional higher education have drastically changed in this regard. For instance, the Pulitzer Administration honoured Wynton Marsalis with their Prize in 1997 for his vocal-orchestral suite Blood on the Fields, which featured “vast stretches of white space” (i.e., un-notated passages) in which the vocalist, instrumental soloists, and jazz orchestra were to improvise (Reich 191). The recognition of such a piece not only defied the Pulitzer’s long-held tradition of bestowing the award to works in which “every note had been put on paper by the composer, in the tradition of most European
classical music,” but also signalled a significant shift in the board’s attitudes towards the value of improvisation and its ability to yield genuine masterworks (Reich 192). In contrast to 1965, when the Pulitzer board declined to give Duke Ellington a special citation that was recommended by the jury, the 1997 adjudicators saw Blood on the Fields as a composition that “drew on both jazz and classical music in a way that represented a broad spectrum of American musical tradition in exemplary fashion” (Reich 193).91

Along with institutions such as the Pulitzer Prize Administration, several classical performers have also become active proponents of bridging the gap between WAM and other genres of music, particularly jazz. To name a few, Yehudi Menuhin collaborated with Stéphane Grappelli in the 1970s, Maxime Vengerov took lessons from jazz violinist Didier Lockwood in 2005, and Noah Bendix-Balgley, the concertmaster of the Berliner Philharmoniker since 2014, is actively involved with Philharmonix, an ensemble that features a “heady cocktail of classical, jazz, klezmer, Latin, even pop tunes” (Woodall 51).92 Collaborations between classical and jazz musicians have not been limited to individuals or small ensembles, but also have involved full size orchestras; in 1989 Zubin Mehta and the New York Philharmonic shared the stage with baritone saxophonist Gerry Mulligan “for a collective jam,” and in 2016, jazz violinist Evan Price premiered his Concerto for Jazz Violin and Orchestra with the San Francisco Chamber Orchestra (Reich 194). Although this list is in no way exhaustive, these examples illustrate what I believe is the gradual erosion of barriers between WAM and other genres of music on the ground, in practice. As musicologist Lewis Porter writes, “one result of this activity is a kind of ventilation of the concert hall; rather than dusty museum devoted to past relics, it is slowly opening its doors to more contemporary currents” (Porter 279). Given that, as Porter (ibid. 279) argues “musical experience[s] in the twenty-first century have arguably become more varied than ever before,” and such “ventilation” is not only a logical but also a necessary step in reflecting

91 Regarding the board’s decision to reject the jury’s recommendation, cultural critic Jonathan Yardley described it as a “confession, however unwitting, of the cultural establishment’s hostility to the new and the different and the unsanctioned” (Reich 193).

92 Further description of Philharmonix repertoire is available at http://www.artsprimavera.com/philharmonix/
and even promoting public awareness for many different genres of music, but also for meeting the growing demands for music that results from such collaborations.\footnote{For more information on the effects of technology in changing the public’s tastes and demands in music in the twenty-first century, consult Andrew R. Brown’s 2012 book \textit{Sound Musicianship}.}

In keeping pace with the public’s rapidly changing demands and tastes on the one hand and the legacy of isolating WAM on the other, there is greater need for classical musicians to have awareness of a broader range of performance idioms and traditions. This is not to suggest that we should be required to be experts in other kinds of music but rather to emphasize the importance of gaining exposure to them. By strategically doing so, classical performers can develop a keener understanding of conventions that the markings on a musical text presuppose. As this dissertation argues, informed decisions about the performance of swing-inflected compositions should result from performers’ familiarity with subtle performance nuances that are central to specific iterations of swing yet often impossible to capture via notation. More generally, as my discussion suggests, knowledge of different performance traditions beyond WAM and awareness of diverse analytical strategies—including the use of audio and video recordings—promise to enrich the music-making process and help equip performers with strategies to cultivate their own opinions and convictions on how to perform the written music in ways that do not uncritically adhere to the score’s low-level intentions but instead reach toward the composer’s high-level aims as they understand them. It is my hope that this dissertation underlines the importance of performers cultivating their own informed means of doing this. Following musicologist Richard Taruskin, I would suggest that this, beyond reproducing the notes, is the epitome of “authentic” performance.\footnote{In his 1984 article, “The Authenticity Movement Can Become a Positivistic Purgatory, Literalistic, and Dehumanizing,” Taruskin critiqued the authenticity movement of the later 20th century that popularized the notion of playing early music with historic instruments in manners consistent with the performance practices of the relevant era. His criticism was that the equating of historical accuracy with authenticity and the “fetishizing” of the text diminished the element of the performers’ choice and taste in the veil of “musicological rationalization” (Taruskin 5).}


Hentoff, Nat. 2010. At the Jazz Band Ball: Sixty Years on the Jazz Scene. Los Angeles: University of California Press.


Appendix #1a: David Balakrishnan

David Balakrishnan, the [Turtle Island Quartet’s] founder and ‘resident composer,’ graduated from UCLA with a B.A. in music composition and violin. Moving to the San Francisco Bay Area, he quickly established his reputation as a talented young improvising violinist, making guest appearances with the David Grisman Quartet and jazz violin legend Stephane Grappelli, and earning a Masters Degree in music composition at Antioch University West.

His compositional approach—based on the principle of multi-stylistic integration applied to bowed string instruments—established the TIQ template that, in addition to the group awards, has earned him two GRAMMY® nominations in the arranging category, and most recently a 2016 GRAMMY® nomination in the composition category for his piece “Confetti Man” on the latest TIQ recording of the same name.

He is the recipient of numerous grants, from private sources such as conductor Marin Alsop, who commissioned his piece for violin and orchestra, “Little Mouse Jumps,” as well as organizations such as the National Endowment for the Arts, Chamber Music America, League of American Orchestras and Meet The Composer. In 2005 he received a MTC/ASOL “Music Alive” residency with the Nashville Chamber Orchestra (largest orchestral composing grant of the year) for which he composed six works. The NCO also commissioned Balakrishnan’s composition “Darkness Dreaming,” which premiered in April 2004 with guitarists Sharon Isbin and John Jorgenson.

His piece “Spider Dreams” (1992) has been widely performed and recorded throughout the world by a diverse array of musical organizations, including a live recording by Turtle Island with the Detroit Symphony conducted by Neeme Järvi on Chandos Records. A 2002 commission awarded by a consortium of presenters headed by the Lied Center of Kansas resulted in a string

---

95 Biography taken from Website, Turtle Island String Quartet. https://turtleislandquartet.com/member/david-balakrishnan/
octet entitled “Mara’s Garden of False Delights,” which is featured on Turtle Island’s Grammy winning Telarc release, “4+Four.”

Again commissioned by the Lied Center in 2008, Balakrishnan composed a full-length work involving theatre, dance, poetry, video, and TIQ with the KU wind ensemble that is an artistic response to the socio/political issues concerning the various theories of evolution, both scientific and cultural, entitled “The Tree of Life.” In 2015 he received Chamber Music America’s prestigious Classical Commissioning Program grant, supporting a full-length work commemorating the quartet’s 30th anniversary season.
Appendix #1b: Andrew Downing

Andrew Downing\(^\text{96}\) is a Toronto based double bass player, cellist, composer and educator born in London, Ontario in 1973. He plays primarily in the creative jazz scene in Canada, but also performs classical chamber music, improvised music, folk and roots music, and world music. He practices the unusual craft of tuning his bass in fifths an octave lower than a cello. His teachers include Jack Winn, Dave Young, Don Thompson, Shauna Rolston and Joel Quarrington.

His own projects span a wide variety of styles and practices. Most recently, he has started a ‘quiet jazz’ ensemble of cello, alto saxophone, lap steel guitar, vibraphone, bass and drums called Otterville that released its first recording in the fall of 2016. It was on the Longer List for the 2017 Polaris Music Prize. He also has a collaborative project in İstanbul, Turkey with ud (Turkish lute) player Güç Başar Gülle that incorporates Ottoman Classical music in a collection of new compositions for ud, cello, percussion and kaval (a Turkish folk instrument). Their first album Anahtar was released in 2013 to critical acclaim. He also has a collaborative multi-media project with Canadian songwriter John Southworth and visual artist Yesim Tosuner called Easterween featuring songs written by John and arranged by Andrew for his 7-piece chamber ensemble. He also leads his chamber-jazz ensemble Melodeon, which plays live scores for silent films such as The Cabinet of Dr. Caligari, Phantom of the Opera (with choir), Maciste in Hell, Impossible Voyage and The Shock.

As a composer, Andrew has written pieces for Nordic Folk group Ensemble Polaris, banjo player Jayme Stone, The Vancouver Bach Choir, Ensemble Meduse, Toca Loca and The Prince George Symphony, and has written arrangements for Patricia O'Callaghan, The Gryphon Trio, The Annex Quartet and The Art of Time Ensemble.

He has won two Juno awards, one for his own recording Blow The House Down with his former group Great Uncles of the Revolution, and one with the Vancouver-based group Zubot and

\(^{96}\) Biography from Andrew Downing’s personal website, [www.andrewdowning.com](http://www.andrewdowning.com)
Dawson. He has also won two West Coast Music Awards, a Socan Award, and the Grand Prix de Jazz from the Montreal Jazz Festival.

Andrew currently teaches double bass, composition and improvisation at the University of Toronto and has taught at Wilfred Laurier University, the Banff Centre's Jazz Workshop and the Creative Music Workshop in Halifax.
Appendix #1c: Evan Price

Evan Price\textsuperscript{97} is steadily gaining recognition as one of the world's most confident voices in extra-classical string playing. A native of Detroit, MI, his musical background includes some earnest dues-paying in a variety of genres. From square dance bands to string quartets, from jamming with blues bands to busking in Greektown, Evan's youthful pursuits all informed his violin-playing and left him with a deep love of chamber music in all forms. As a young competitive fiddler he won his share of awards, having been named the U.S. Scottish Fiddling Champion, the Kentucky State Fiddle Champion, Canadian Junior Fiddle Champion, and Canadian Novelty Fiddling Champion. He also performed with some of the masters of fiddle lore—Stephane Grappelli, Johnny Frigo, Claude "Fiddler" Williams, Johnny Gimble, Buddy Spicher, and Vassar Clements—as well as a diverse array of pop icons from Stevie Wonder and Led Zeppelin's Jimmy Page and Robert Plant to comedian, Steven Wright.

Evan's college career included stints at both The Cleveland Institute of Music and at Berklee College of Music, and has himself served as a member of the music faculty at Wellesley College, The California Jazz Conservatory, and The University of California, Berkeley.

Evan is a ten-year veteran of the world-renowned, paradigm-shifting jazz ensemble, the Turtle Island Quartet. During his tenure in Turtle Island, Evan gave over five hundred performances in concert venues from Latvia to Australia and had the opportunity to collaborate with many musical luminaries, such as Cuban clarinetist Paquito D'Rivera, The Ying Quartet, pianists Dr. Billy Taylor and Kenny Barron, and classical guitarists, Sergio and Odair Assad. He recorded five CD's with Turtle Island, two of which—"Four + 4" and "A Love Supreme: The Legacy of John Coltrane"—received GRAMMY® awards in 2006 and 2008 in the Classical Crossover category.

\textsuperscript{97} Biography from Evan Price's personal website, \url{https://www.evanpricemusic.com/}
Since 1998, Evan has been proud to call himself a member of The Hot Club of San Francisco, perhaps the most venerable gypsy jazz band in the US. During his tenure, the group has thrilled audiences from Iceland to Mexico and across the United States, and has released seven CD's which feature Evan on violin.

An accomplished composer, Evan has contributed compositions and arrangements to the repertoires of HCSF, Turtle Island Quartet, Quartet San Francisco, Irish fiddler Liz Carroll, San Francisco Girls' Chorus, River Oaks String Quartet, the New Century Chamber Orchestra, under the direction of Nadja Salerno-Sonnenberg, Chanticleer, and the International Space Orchestra, for which he also serves as musical director. He lives in Mill Valley, CA, with his wife and daughter.
Appendix #2: Interview Methodology and Questionnaire

Before the first interview, jazz experts were required to sign the ‘Informed Consent Form’ (presented in Appendix #4), as per University of Toronto’s research ethics protocols. Upon receiving the signed copies of the form, I sent the score and five anonymized sound recordings for each of the pieces under review. The recordings were anonymized not only to remove any chance of personal bias but also to minimize the chance of any friction between the jazz experts and the players in the sound recordings, some of whom are still active in the music profession. Upon reviewing the files for a period of two weeks, the experts participated in separate interviews via Skype and were asked, “Which performance most successfully conveyed a sense of swing? and why?” The results of this inquiry are recorded in Figure 35, on page 97.

Along with this inquiry, the following interview questions were asked in the interview(s):

1. What is your definition of swing?
2. Who are your favorite jazz violinists? And why?
3. What are the staple techniques to swing?
4. What are your perspectives regarding the principles outlined in Venuti’s “Violin Rhythms”?
5. What is your approach to performing notated music?
6. What is your approach to performing notated music that is based on jazz idioms and improvisations?
7. How would jazz-violin techniques apply to performances of the selected compositions?
Appendix #3: Selected Discography


Appendix #4: Copy of Informed Consent Form

You are invited to participate in my study regarding a Jazz-Informed Approach to Performing Swinging Art Music on the Violin. The purpose of the study is to examine how the aesthetics of jazz require not only a different set of techniques in performance, which may also be applicable in the classical music contexts, but also a different interpretative approach that requires a greater flexibility in the reading and the performing of notated articulations and rhythms. Although jazz influences on art music are widely discussed in scholarly debates, there seems to be much less literature on how jazz-influenced art music should be interpreted in ways that explore the possibilities of employing jazz performance techniques, which are beyond the scope of classical/traditional violin pedagogy and performance. The interview will serve not only to help in the cataloging of jazz performance techniques but also to illustrate the ways jazz violinists/arrangers notate and perform swing and interpret notated swing rhythms. As stated in the The Methodology section of my proposal, this research is reliant on the interview process with professional jazz violinists/pedagogues with extensive knowledge of jazz performance aesthetics and techniques. If you are willing to participate, we will set up a time and date for a Skype interview.

Participation in this study is voluntary. You have the right to refuse participation, to decline to answer any questions, and to withdraw at any time, up to and including the last interview. From that point on any withdrawal of information will not be possible, as it will compromise my research and writing. Each session will be audio recorded, and you have the right to refuse the use of such a device in the interview(s). Further information about your rights can be found at the Office of Research Ethics (ethics.review@utoronto.ca, 416-946-3273).

There are no foreseen direct risks involved with this project. This study will not only raise awareness of your unique approaches to and perspectives on violin playing, but also allow your contributions to be included in the growing discussions surrounding the evolution of violin playing in the twenty-first century. By the sharing of your knowledge, I hope to make this information accessible to future generations of violinists.

As the authority of the information lies in the affiliation to your name, confidentiality will not be a part of this study. During the research only my committee and I will have access to the information. The complete dissertation will be offered to you before submission. Once you have had the chance to review and approve the final document, the dissertation will be published so that the information is accessible. After the dissertation has been published, I will retain the information gathered for further reference, but it will not be used again without further consent from you during your lifetime. This information has the potential of archival value and as such will be kept indefinitely unless you direct otherwise.

If you agree to the above terms and information, please sign the form below. Thank you very much for your consideration.

________________________
Signature of Interviewee

________________________
Date
Copyright Acknowledgements

My sincere thanks to Boosey & Hawkes, INC for granting me permission to use score samples throughout the dissertation.