The Living Framework: Miles Davis and the Evolution of the American Popular Song

by

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Doctor of Musical Arts - Jazz and Contemporary Media

Supervised by
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Curriculum Vitae

Alexander H. Graham was born in Memphis, Tennessee on March 20, 1972. He attended the New School for Social Research from 1990 to 1994, and graduated with a Bachelor of Arts degree in 1994. In 2005, he was awarded a Masters of Music degree from Wayne State University in Detroit, Michigan. He came to the Eastman School of Music in the Fall of 2005 and began graduate studies in Jazz and Contemporary Media. He received a "George Marge Fund Scholarship" for woodwind doubling in 2005 and 2006. Mr. Graham pursued his research in jazz interaction under the direction of Professor Dariusz Terefenko and received the Doctor of Arts degree from the Eastman School of Music in 2009.

Acknowledgements

A project like this would not have been possible without the support of several key individuals. From Eastman School of Music, I would like to thank Professors Harold Danko, Bill Dobbins, Clay Jenkins, Jeff Campbell and Dave Rivello for profoundly shaping my analytical and philosophical approach to music during these past several years. Special appreciation is due to: Professor David Headlam, whose MIDI conversion program played a key role in developing several of the figures that appear in Chapter Three; Professor Robert Wason, for his analytical insights and excellent suggestions for source materials; Professor Dariusz Terefenko, who expertly guided the completion of this project; and Professor Ramon Ricker, who has been a trusted advisor and mentor since coming to Rochester in 2005.

While at Eastman, I also had the opportunity to work with several excellent students, many of whom have helped to shape my conception. Two of these students, Chris Ziemba and Dave Tedeschi, were able to assist me with several excellent transcriptions of Herbie Hancock's and Tony Williams' accompaniment for many of the examples presented here. Jeremy Manasia, a wonderful pianist, educator and long-time professional colleague similarly allowed me to use his transcription of Herbie Hancock's solo on "All of You" from *My Funny Valentine*. I am most grateful to all of these musicians for donating their time and expertise to the betterment of my work.

On a personal level, I am deeply indebted to my family for their support, encouragement, and sacrifice while I pushed this project to its completion. In particular, I give thanks to Kathy Lewand whose considerable editing skills proved indispensable. However, the biggest and most heartfelt thank you is reserved for my wife, Kristi. Besides exercising an extraordinary amount of patience as I developed this research, she was also able to bring her considerable skills as a graphic designer to bear on the over 100 figures that appear in this study. More than anyone else, this work and everything else I do would not be possible without her. Thank you!

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Chapter One

Introduction

From 1955 until he "went electric" in the late 1960s, the Miles Davis quintet redefined the American popular song. During this time, the group evolved through three different and distinct rhythm sections, each of which influenced the next.[1] Although new compositions were gradually added to the repertory, Davis continued to favor performing and recording many of the same popular songs through all three incarnations of the quintet, giving us a window into how these pieces and Davis' groups' interpretations of them evolved over the years.

Starting in 1955, Davis' various working groups, mostly quintets, were comprised of what were arguably considered the best jazz musicians of the day. That talent, when combined with Davis' "hands-off" approach, and his infrequent use of formal written arrangements, led to an environment where improvised communication within the ensemble became necessary to the musical continuity of a given performance. This research deconstructs many types of ensemble interactions mastered by the last of these quintets, and achieves a deeper understanding of how these methods evolve over time.

The data used for this research includes original transcriptions of various Miles Davis Quintet recordings, a variety of transcriptions derived from published and unpublished sources, and numerous related research articles and texts.[2] From these transcriptions, a detailed analysis is presented using musical examples and several unique charts and graphs. Elements of this analysis are then considered with specific respect as to how they relate to improvised communication within the ensemble and how a shared understanding of these concepts facilitates their success as a group

1 In most jazz texts, Davis' quintets are identified as the "first great quintet" (Davis, John Coltrane, Red Garland, Paul Chambers and "Philly" Joe Jones) or the "second great quintet" (Davis, George Coleman/Wayne Shorter, Herbie Hancock, Ron Carter and Tony Williams). This unfortunate designation fails to consider the large body of recordings made by the real "second quintet" (Davis, Sonny Stitt/Hank Mobley, Wynton Kelly, Paul Chambers and Jimmy Cobb) from 1959-61. Therefore, this study uses the term "first quintet" for 1955-58, "second quintet" for 1959-61 and "third quintet" for 1963-68.

2 These transcriptions are occasionally limited by several factors. Human error, poor sound quality and lack of multi-track separation on the recordings occasionally leads to mistakes or indiscernible moments.

The song "All of You" is the primary focus of this study.[3] With a total of 25 versions, there are more recordings of "All of You" in Davis' discography than any other popular song.[4] This allows for a broad comparison of versions, demonstrating consistencies in the performances that change and evolve with new personnel. As well, these recordings cover almost a full decade of perfor-mances, revealing a complete transformation in Davis' interpretation.[5]

Although Chapter Two presents a cursory examination of several recordings of "All of You" from 1956 to 1963, the analysis in Chapters Three and Four is primarily focused on Davis' live recording *My Funny Valentine*. These points of analysis are organized into three chapters.

Chapter Two examines "All of You's" "living framework" as it evolves through different incarnations of the same group. A detailed analysis of Cole Porter's original version is followed by a discussion of how Ahmad Jamal's interpretation of the song influences early versions by Davis' quintet. It concludes with an examination of several Davis versions of "All of You" with a focus on analyzing the version from February 12, 1964 that is the center of this study. In this chapter, lead sheets are developed from multiple recordings and used to illustrate basic aspects of the evolution of "All of You." The changing aspects of form, melody, harmony and rhythm reveal the living tradition of the song, and also demonstrate Davis' evolving performance techniques.

The analysis in Chapter Three demonstrates the existence of a "collective aesthetic" in "All of You." This aesthetic is characterized by a collective impulse to build performances through the intensification of numerous musical elements. It is also evident in the quintet's use of common jazz styles by which they are able to interact with efficiency and cohesiveness. Aspects of the "collective aesthetic" are revealed with unique charts and graphics that demonstrate shared tendencies for building their performances. The charts also show that the performers are able to partition their solos through the use of a variety of solo and accompaniment styles.

Chapter Four contains an in-depth examination of excerpts from each solo from the 1964 recording. The analysis demonstrates a variety of techniques used by the soloists to facilitate successful ensemble interactions. As well, it reveals interactive techniques in the rhythm sec-

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3 Cole Porter, "All of You," *Silk Stockings*, 1955.

4 http://plosin.com/milesAhead/DiscoDetails.aspx

5 Although more obscure recordings of "All of You" will also be examined in Chapter 2, primary consideration will focus on versions from three landmark recordings: Miles Davis Quintet. *'Round About Midnight,* (Columbia, CL 949, 1956. LP); Miles Davis Quintet (2 CD set) *Miles Davis In Person: Friday and Saturday Night at the Blackhawk*. Miles Davis, trumpet. Hank Mobley, tenor saxophone, Wynton Kelly, piano. Paul Chambers, bass. Jimmy Cobb, drums. (Columbia, CL 87106, 1961. CD); Miles Davis Quintet (2 CDs) *My Funny Valentine*, and *Four and More*. Miles Davis, trumpet. George Coleman, tenor saxophone. Herbie Hancock, piano. Ron Carter, bass. Tony Williams, drums. (Columbia, CL 2306,1964. CD).

tion that lead to a high level of cohesion in the accompaniment. Full score transcriptions of many of these excerpts are used to indicate subtle aspects of interaction that may have otherwise gone unnoticed.

By examining the various elements of this analysis through the context of group communication, this study identifies the various decisions and calculations that go into creating a cohesive yet highly spontaneous group performance. We find that many of these spontaneous choices are successful because of the various group members' adherence to specific roles within the ensemble, and also because of an intimate shared knowledge of formatic, melodic, harmonic and rhythmic vocabulary. It is in this knowledge that we are better equipped to articulate the deepest and most enduring aspects of this music and the many styles of jazz that are informed and influenced by it.

Of course, there exists considerable literature that covers the life and times of Miles Davis, including information that is pertinent to this research.[6] These texts reveal the historical importance of Davis' quintets, especially during the mid-1960s. They also provide a topical discussion of "free jazz," "modal jazz," and a wide variety of internal and external forces that drove Davis' innovations.

Although these historical texts contribute to a deeper understanding of the subject, the most relevant texts are the various dissertations, theses, articles and analytical works that are specific to or somehow informative on the topic of ensemble interaction in jazz.[7] Indeed, great advances have been made in recent years because of a burgeoning interest in exploring the interactive aspects of jazz performance.

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6 Miles Davis, *Miles, the Autobiography/ Miles Davis with Quincy Troupe.* (New York: Simon and Schuster, 1990). This text includes Davis' perspective on the "third quintet" from the mid-1960s, the recordings they made, and the high regard that he holds for that group in comparison to other groups that he has led before and since; Jack Chambers, *Milestones: The Music and Times of Miles Davis*. (New York: Quill William Morrow, 1983). Chambers' book details the kinds of information missing from Davis' autobiography. Specific recording dates, Davis' discography and other useful information is contained here.

7 Paul F. Berliner, *Thinking in Jazz: The Infinite Art of Improvisation.* (Chicago: University of Chicago Press, 1994). Berliner's book is a comprehensive text that is filled with the perspectives of many of the twentieth century's most important jazz artists. It features nearly 250 pages of transcriptions and analysis making it the most important study of jazz improvisation and interaction in academia; Robert Hodson, *Interaction, Improvisation, and Interplay in Jazz* (New York: Routledge, Taylor and Francis Group, 2007). Hodson uses a select sample of recordings to analyze some of the more common types of interaction from a historical and theoretical perspective. In attempting to reveal the historical evolution of interaction in jazz, he makes broad strokes, avoiding the degree of detail found in Berliner's text; Todd. Coolman, "The Miles Davis Quintet of the Mid-1960s: Synthesis of Improvisational and Compositional Elements." Ph.D diss, New York University,1997. This is the closest in content to the research contained herein. However, Coolman's analysis sacrifices a degree of detail in favor of a broader perspective; Paul E. Rinzler "Preliminary Thoughts on Analyzing Musical Interaction Among Jazz Performers." *Annual Review of Jazz Studies*, vol. 4, 1988. organizes the aspects of small-group playing into five different types of interaction: call and response, fills, accenting the end of formal units, common motive and responding to peaks of the soloist. Although Rinzler gets to the heart of some of the most common types of interactions, his categories are insufficient for organizing the wide variety of interactive episodes that occur within the Davis quintet and other groups.

Despite these advances, the need to achieve an in-depth understanding of the Miles Davis quintets of the 1950s and 60s persists. While a great many of today's most important and prominent jazz artists are influenced by these recordings, very little is published on the subject that clearly articulates what is happening in the music, particularly in regards to the communication that exists between the performers. As such, this research aims to provide a clearer window into the nature of ensemble interaction, and to contribute to the growing body of work that recognizes the central place of interaction in jazz.

Chapter Two

The "Living Framework"

Chapter Two considers the "living framework" for Cole Porter's "All of You" as it existed for the Davis quintet on February 12, 1964. For the purposes of this study, a "living framework" can be broadly defined as the elements of a composition that are in one way or another agreed upon before its performance. This "framework" includes not only the general characteristics of the song such as the form, melody and harmonic structure, but also more specific details including count-offs, introductions, endings, structural cues, textural changes, solo order, solo length and a wide variety of interpretive decisions. In order to fully understand the "framework" for Davis' performance of "All of You," a comprehensive analysis is required. First, we will break down the original score of the song with an eye towards understanding its basic formal, melodic and harmonic structure. Next, we will examine early jazz versions of the song as recorded by the Ahmad Jamal Trio and Miles Davis Quintet. This analysis will demonstrate Jamal's influence on Davis' conception of the song.[1] Having examined these early versions, we will research later versions of "All of You" by various incarnations of the Davis quintet to trace its evolution leading up to the 1964 recording. We will conclude with a detailed discussion of the "framework" used by the Davis quintet at the famous Lincoln Center concert.

A review of several studies of jazz improvisation and interaction finds a variety of attempts to define the "living framework." In his landmark text *Thinking in Jazz*, Paul Berliner favors the term "arrangement."

Performers' attention to the artful regulation of their interaction expresses itself most formally in the creation of musical arrangements, details of presentation worked out for each piece in advance of music events. Arrangements represent varied degrees of planning and impose different compositional constraints upon improvisers. They introduce stable precomposed elements to group interplay, providing overall shape to performances and reducing some of the risks associated with collective improvisation.[2]

1 For more information on Jamal's influence on Davis, see Miles Davis, *Miles, the Autobiography: Miles Davis with Quincy Troupe* (New York: Simon and Schuster, 1990), 178.

2 Paul Berliner, *Thinking in Jazz: The Infinite Art of Improvisation* (Chicago: University of Chicago Press, 1994), 289.

Although Berliner's discussion of "arrangements" is thorough and compelling, the use of the term is somewhat misleading. Take, for instance, Gunther Schuller's definition of "arrangement" from the *New Grove Dictionary of Jazz*.[3] Although Schuller admits that "all jazz performance, insofar as it is improvised and constantly renewed, constitutes a form of arranging," he concludes that "in a narrower sense the term arrangement in jazz has come to mean a written-down, fixed, often printed and published version of a composition, usually arranged for one of the various standard jazz ensembles." As we will see later in this study, numerous aspects of Davis' "All of You" are indeed "worked out…in advance of musical events," but are certainly not "written-down" or "fixed," and are far too flexible in nature to satisfy this second and more concise definition of "arrangement."

Robert Hodson's book *Interaction, Improvisation, and Interplay in Jazz* approaches the question from a more traditional analytical perspective. In describing the "long-range performance plan" of a performance of the Charlie Parker blues "Now's the Time," Hodson divides the overall performance into sections (introduction-head-saxophone solo-trumpet solo-rhythm section-head) and uses the term "form" to describe the total structure of the performance.[4] As Hodson states, the term "form" is commonly used to describe the "large-scale organization of a piece of music," such as in the analysis of a sonata or other similar large-scale form. He also points out that jazz musicians instead use the term "form" to "describe the structure of one chorus of the tune being played." As such, and as with the term "arrangement," the word "form" fails to accurately convey the correct meaning. As a possible alternative, Hodson suggests the term "roadmap," an informal term used by jazz musicians to convey to each other basic pre-performance decisions such as introductions, instrumentation, solo lengths, solo orders and endings. However, as this study will show, the "framework" of "All of You" goes far deeper than these kinds of decisions and is characterized by subtle agreements between the ensemble members and shared understandings of a wide variety of performance factors.

Todd Coolman's dissertation "The Miles Davis Quintet of the Mid-1960s: Synthesis of Improvisational and Compositional Elements" analyses three recordings by the Miles Davis quintet. For each analysis, Coolman uses a similar model as Hodson to describe the "frame-

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3 Gunther Schuller, "Arrangement," in *The New Grove Dictionary of Jazz,* ed. Barry Kernfeld (New York: St. Martin's Press, 1994), 32-33.

4 Robert Hodson, *Interaction, Improvisation, and Interplay in Jazz* (New York: Routledge, Taylor and Francis Group, 2007), 75-77.

work," but with more detail. He labels the statements of the melody and solos by letter (A, B, C, etc…) and provides a description of the instrumentation/texture for each section as it changes over the course of the performance.[5] Coolman stays away from explicitly defining one term, instead using multiple terms like "overall form," "structural outline" and "overview" to describe the same concept. From the perspective of analysis, these terms are all equally adequate. However, they fail to address the decision making process that leads to this final "structural outline," a process that is informed by all of the elements contained in the "living framework" of a given tune.

The term "living framework" recognizes that, although certain "details of the presentation" are agreed upon before a given performance, they display a degree of flexibility not typical of an "arrangement." It also indicates that this "framework" is an organic thing, growing and evolving through multiple renditions by one or more groups, each performance retaining elements of the previous versions while constantly incorporating new concepts and vocabularies. The evolution of this "framework" is a primary example of what makes a musician's knowledge of the jazz tradition so critical. Igor Stravinsky speaks eloquently to this point:

> A real tradition . . . is a living force that animates and informs the present. . . . Tradition thus assures the continuity of creation. [6]

Although he speaks from the perspective of the Western classical music tradition, it rings just as true for jazz and for the "living force" that runs through multiple renditions of the same tune over decades and into the present day.

In essence, a "living framework" provides one part of a larger dichotomy. The other part of this dichotomy is the impulse towards freedom of expression. Within this dichotomy exists a negotiation between spontaneous impulse and the limits provided by a framework, and this negotiation is at the core of what makes any jazz ensemble unique. In Stravinsky's view "the more art is controlled, limited, worked over, the more it is free."[7] Indeed, the Davis quintet's masterful grasp of the various aspects of the "living framework" of "All of You" leads to more freedom and enhanced opportunities for cohesive improvisations and ensemble interactions. Most importantly, this "framework" gives the improvisers a field of expectation/possibility

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5 Todd Coolman, "The Miles Davis Quintet of the Mid-1960s: Synthesis of Improvisational and Compositional Elements" (Ph. D diss., New York University,1997), 49-50.

6 Igor Stravinsky, *The Poetics of Music* (Cambridge: Harvard University Press, 1942), 57.

7 Ibid., 63.

by which they may be able to anticipate various choices by their counterparts, especially in regards to phrasing and arrival points.

By conclusively establishing which aspects of "All of You" are predetermined in Chapter Two, the reader will gain a clearer picture as to which aspects of the performance are not predetermined. For later chapters, this focuses the analysis on the spontaneous aspects of the performance and the interaction that accompanies it.

Analysis of Cole Porter's "All of You"

"All of You" was composed by Cole Porter in 1954 as part of his Broadway musical *Silk Stockings*. Because of its popularity, numerous versions by vocalists and jazz instrumentalists soon found their way into the public arena.[8] Arrangements for vocalists like Ella Fitzgerald were more or less loyal to the original melody, but contained numerous harmonic alterations. Instrumental jazz versions, unencumbered by the lyric, usually contained harmonic and melodic alterations, as will be seen in the versions to be discussed later.

In order to better appreciate these alterations and their implications, this discussion begins with an analysis of the original version of "All of You." To that end, I have converted the piano-vocal score of the song into a simplified lead sheet that honors the composer's intent. From this lead sheet, I will identify key aspects of its formal, melodic, harmonic and rhythmic design. This will provide a better perspective for later analyses of versions by the Ahmad Jamal Trio and Miles Davis Quintet.

Formal Design

Although the majority of American popular songs utilize rounded binary designs (AABA), other forms are not uncommon.[9] As with "All of You," many songs are constructed using a simple binary formula (ABAC).[10] Regardless of formal design, the vast majority of

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8 Ella Fitzgerald, "All of You," *Ella Fitzgerald Sings the Cole Porter Song Book* (New York: Verve, 1956). CD; Fred Astaire, "All of You," *Silk Stockings: Original M-G-M Picture Soundtrack Recording* (Los Angeles: Turner Entertainment/Rhino Movie Music, 1956-57, p. 2002). CD; Ahmad Jamal Trio, "All of You," *Chamber Music of the New Jazz* (New York: Verve, 1955). CD; Miles Davis Quintet, "All of You," *'Round About Midnight* (Columbia, CL 949, 1956). LP.

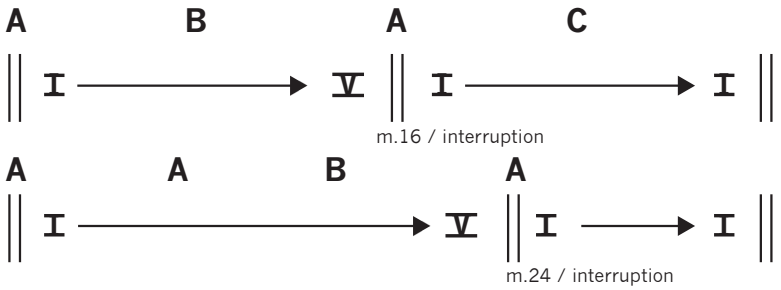
9 Allen Forte, *The American Popular Ballad of the Golden Era, 1924-1950* (Princeton, N.J.: Princeton University Press, 1995), 41. Forte refers to the typical AABA form of popular songs as being "ternary" in construction. I have chosen to interpret them as "binary" models because of the interruption in m. 24 and the return of the opening thematic material only at the very end of the refrain. This statement refers primarily to the refrains of the songs in question. The verses to songs like "All of You" are often left out of recordings and performances.

10 Other common songs that exhibit a simple binary construction include "It Could Happen to You," "There Will Never Be Another You," and "I Could Write a Book."

these songs are 32-bars in length and can be divided into four 8-bar phrases.[11] In the case of "All of You," these phrases combine to form two 16-bar periods. (fig.2.1)

The first of these periods ends with a harmonic interruption (half cadence) that evades resolution and propels the music into the second period. The second period ends in an authentic cadence to the tonic (Eb) in m. 31. Together, they form a "double period" which is classified as a "parallel interrupted" structure because of the interruption that comes roughly half way through the form (m. 16).[12] This offers a major contrast with rounded binary forms (AABA) where the interruption occurs three quarters of the way through (m. 24). (fig. 2.2)

Figure 2.2



Additionally, the 8-bar phrases upon which the periods are built contain contrasting thematic material. Combined with interruptions in measures 8 and 24, each 16-bar period resembles a "contrasting interrupted" phrase structure.[13]

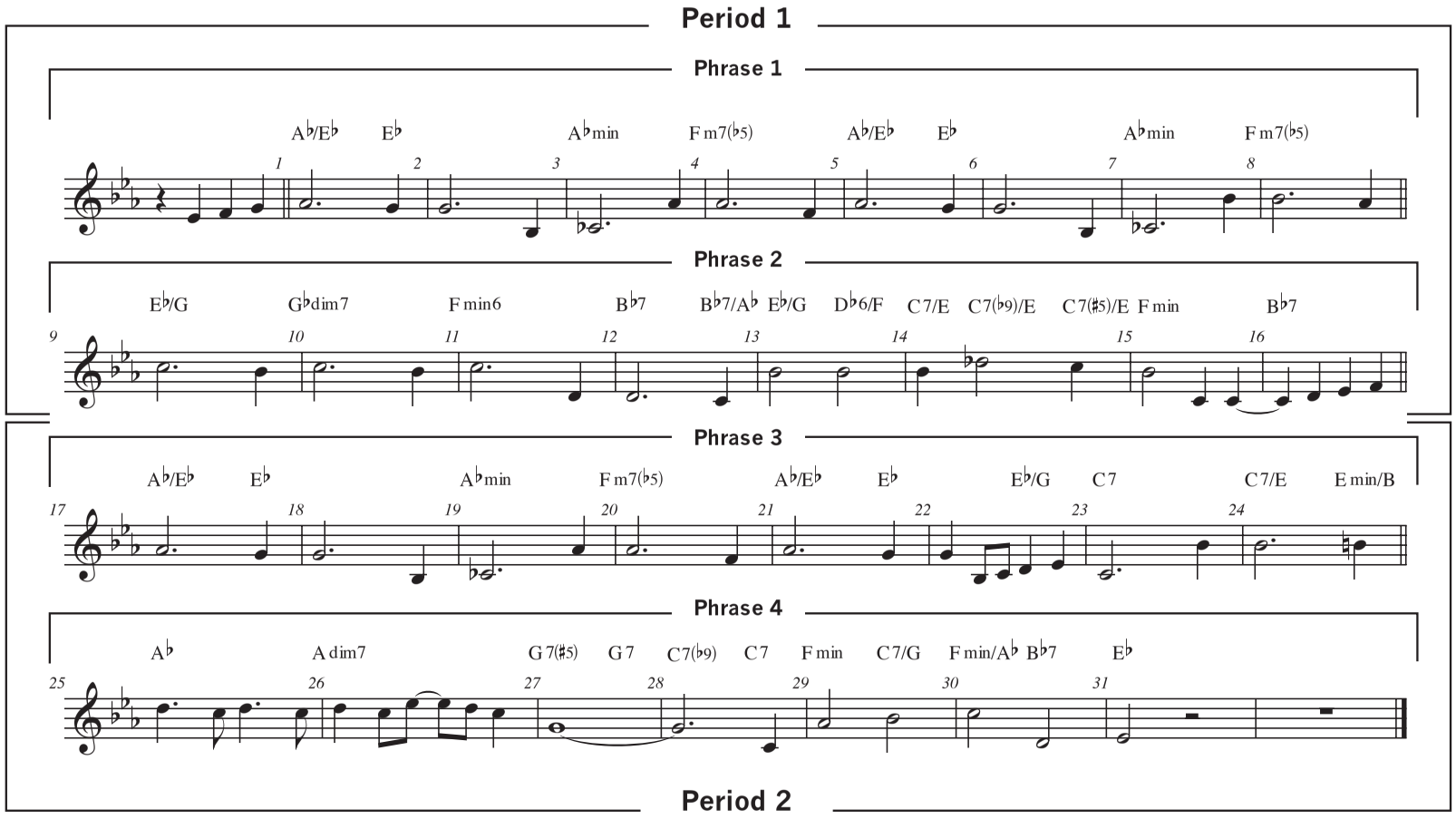
Each 8-bar phrase in "All of You" is comprised of two 4-bar motivic groups. (fig. 2.3) These groups interact in typical antecedent-consequent fashion. Example 2.3 demonstrates the manner in which the first 4-bar groups are "answered" in the second 4-bar groups through similar intervallic and rhythmic gestures. The period and phrase structure of "All of You" figures prominently in improvised solos and ensemble interactions, a discussion reserved for later.

11 While most songs adhere to a 32-bar form, some incorporate an additional 2-bar or 4-bar phrase extension at the end of the form. Well-known examples include "I Got Rhythm" (2-bar extension) and "My Funny Valentine" (4-bar extension).

12 A comprehensive list of terms describing phrase and period structures can be found in Stephen Laitz, *The Complete Musician,* (New York, Oxford University Press, 2008).

13 Strictly speaking, this is only true of the second half of "All of You" which concludes on the tonic. The first half contains an interruption in measure 8 and in measure 16.

Figure 2.1


Period 1
Phrase 1
A♭/E♭ E♭ A♭min F m7(♭5) A♭/E♭ E♭ A♭min F m7(♭5)
1 2 3 4 5 6 7 8
Phrase 2
E♭/G G♭dim7 F min6 B♭7 B♭7/A♭ E♭/G D♭6/F C7/E C7(♭9)/E C7(♯5)/E F min B♭7
9 10 11 12 13 14 15 16
Phrase 3
A♭/E♭ E♭ A♭min F m7(♭5) A♭/E♭ E♭ E♭/G C7 C7/E E min/B
17 18 19 20 21 22 23 24
Phrase 4
A♭ A dim7 G 7(♯5) G 7 C7(♭9) C7 F min C7/G F min/A♭ B♭7 E♭
25 26 27 28 29 30 31
Period 2

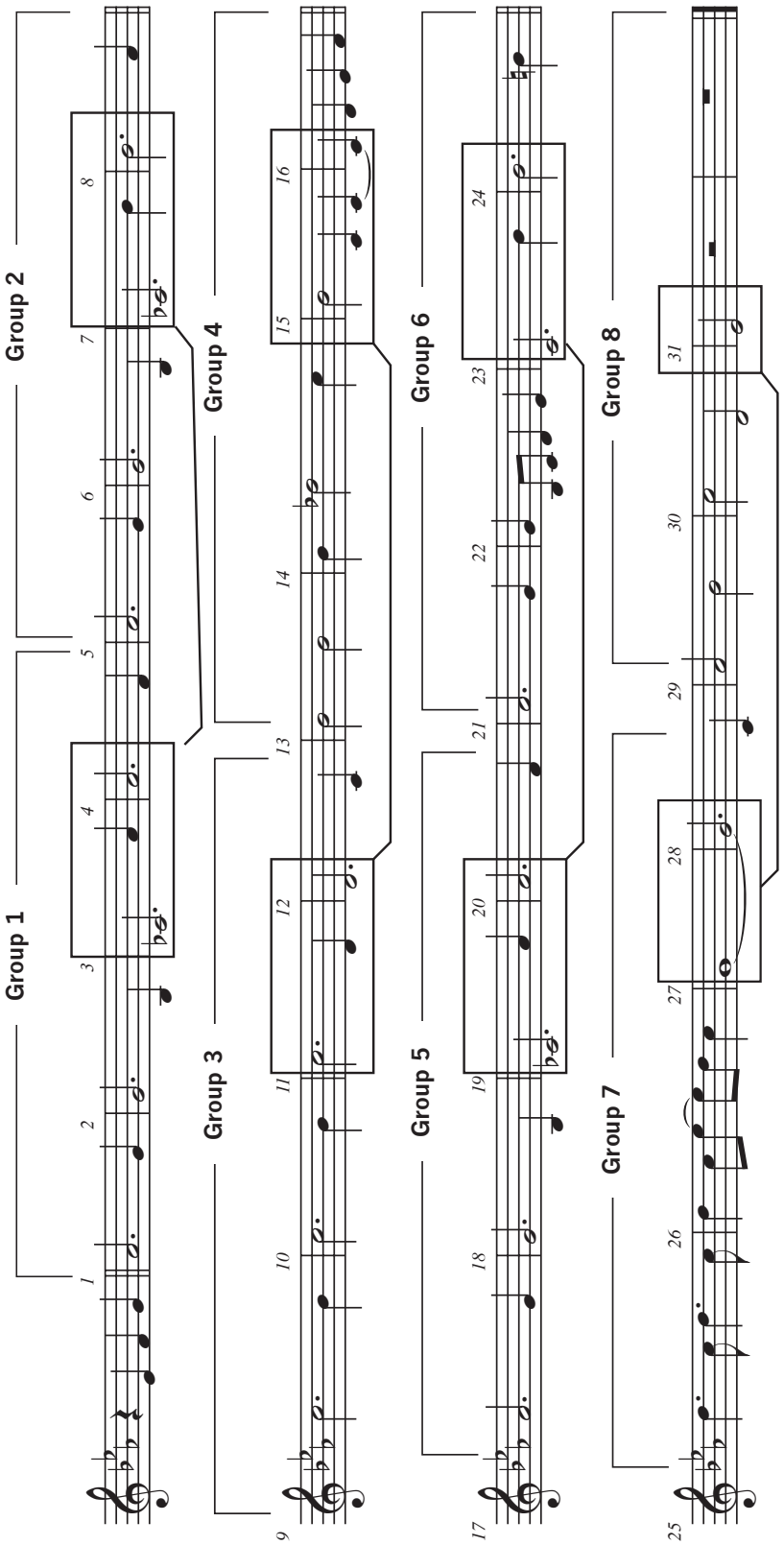


Figure 2.3

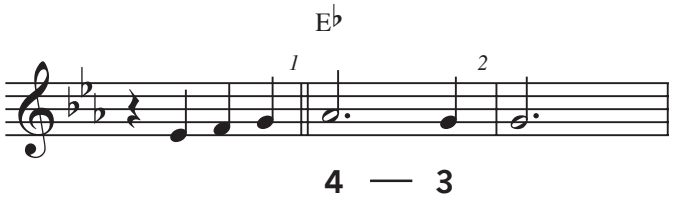
Melodic Design

The melodic design of "All of You" is characterized by the use of accented passing tones and an ascending melodic profile. These aspects of the melody work in tandem with other elements of form, harmony and rhythm to create long-range continuity and satisfying resolutions.

Accented Passing Tones

A primary component of "All of You" is the use of accented passing tones to highlight points of structural importance. This is reflected in the opening phrase. (fig. 2.4)

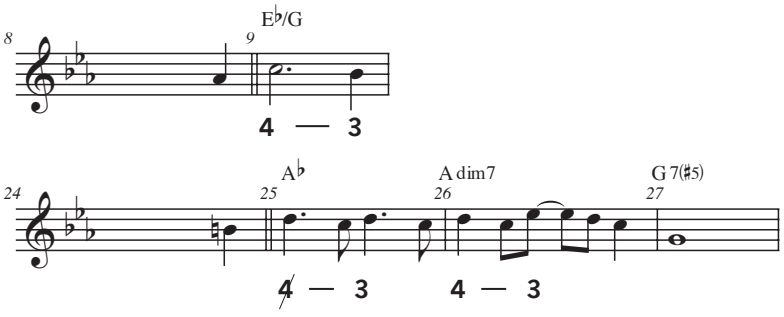
Figure 2.4



The dissonant a-flat is held a full 3 beats before finally resolving to g on beat 4 of m. 1. The colorful harmony created by this 4-3 suspension helps to underline the structural importance of g, and establishes it as the "primary melodic tone" of the song. [14]

Accented passing tones also figure prominently at the beginnings of the B and C sections in the form of appogiaturas. (fig. 2.5)

Figure 2.5



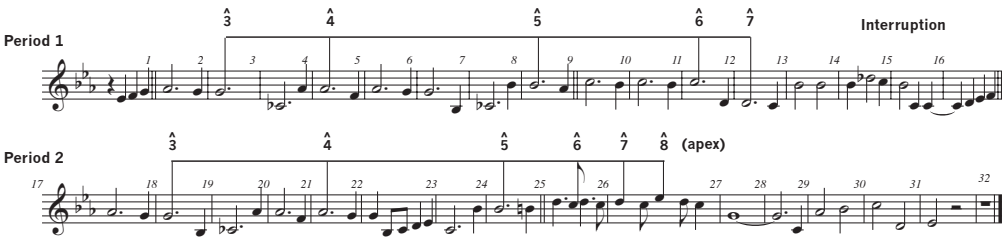
14 Allen Forte, "Secrets of Melody: Line and Design in the Songs of Cole Porter," *The Musical Quarterly*, Vol. 77, No. 4 (Winter, 1993), pp. 607-647.

Notice how the d in measure 25 is also used as an accented passing tone in m. 26. These passing tones create the most colorful harmonies of the song. In typical Porter fashion, he creates an effective climax by reserving these harmonies to coincide with the registral apex and peak rhythmic activity of the piece.

Melodic Profile

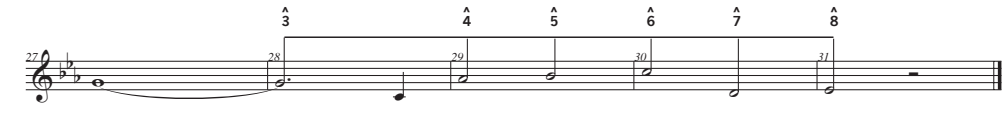
A close examination of "All of You" reveals a compelling melodic profile. From this profile, we may extrapolate an ascending line that leads from g to d in measures 1-12 and from g to e-flat in measures 17-26. (fig. 2.6)

Figure 2.6



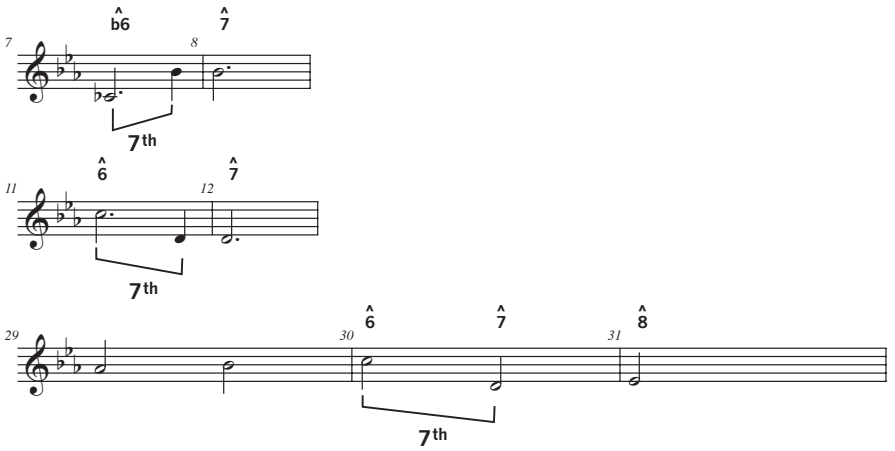
During the first half of the form, the line arrives at the leading tone (d) only to "pull back" from a resolution to the tonic note (e-flat). This resolution is finally granted at the song's apex in m. 26, a climactic moment that coincides with the peak register, rhythmic intensity and harmonic complexity of the piece. Porter ingeniously presents this same melodic profile over the last six measures of the melody, providing an emphatic and final resolution to the tension created in the first three quarters of the song. (fig. 2.7)

Figure 2.7



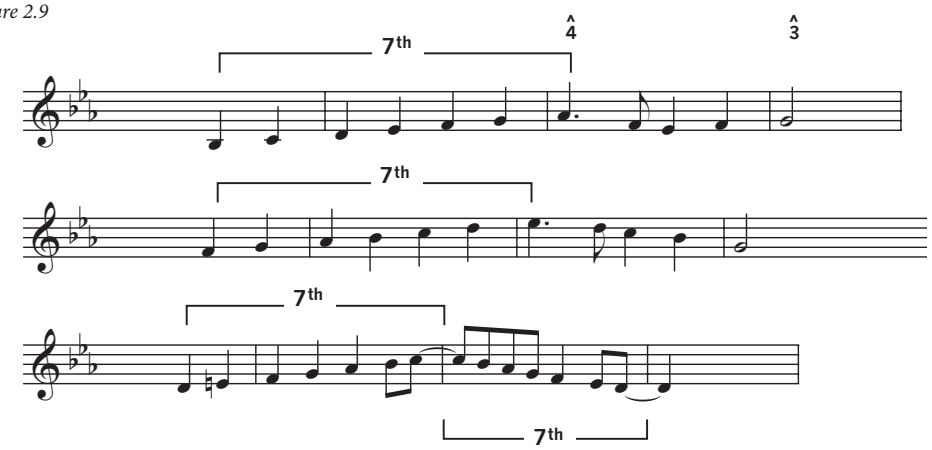
Aspects of the melodic profile are hidden through dramatic leaps of major and minor 7ths. These leaps pervade the song and disguise the direction of the line, which moves in the opposite direction of the leap. (fig. 2.8)

Figure 2.8



The use of 7ths is likely derived from the verse where they are expressed more gradually via stepwise motion. (fig. 2.9)

Figure 2.9



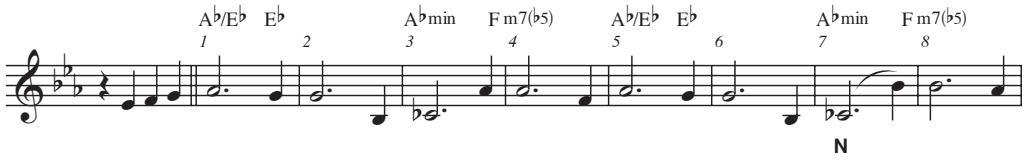
The consistency of Porter's melodic design adds another level of cohesiveness to "All of You" and helps to guide many of the harmonic and rhythmic elements of the piece.

Harmonic Design

Modal Mixture

The use of modal mixture is a critical aspect of many of Porter's songs.[15] In "All of You," this is expressed via the use of the flatted-6th scale degree (c-flat) which is borrowed from the parallel minor mode and which provides the primary harmonic color. Over the course of the song, this note is rendered in two different harmonic contexts: as the third of a-flat minor, and as the chromatic lower neighbor of c-natural. (fig. 2.10)

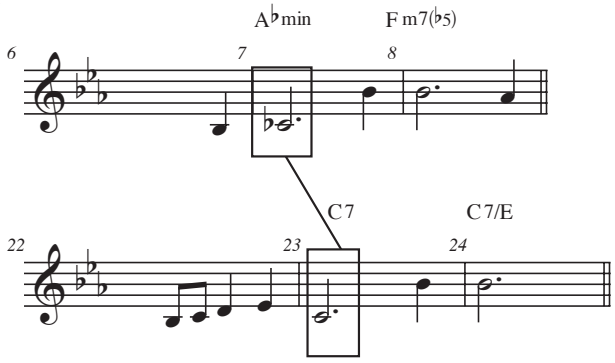
Figure 2.10



The insertion of chromatic harmonies, drawn from the parallel minor key and placed at the ends of these 4-bar units, engages the listener and propels the music forward.

Note also the contrast between c-flat in m. 7 and c-natural in measure 23. Both notes appear in the seventh bar of the A sections. (fig. 2.11)

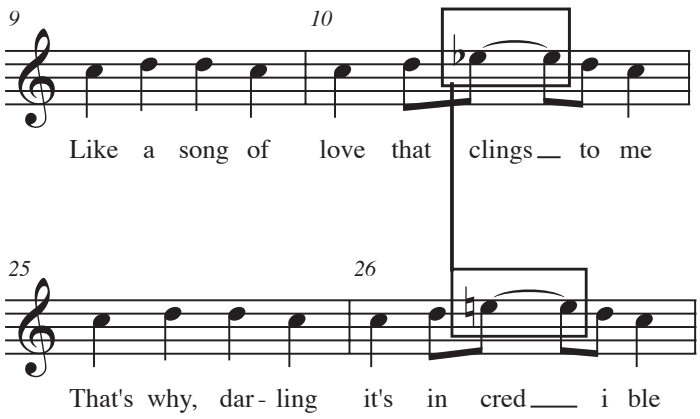
Figure 2.11



15 Well-known examples of Porter compositions that employ modal mixture include "I Love You" and "What is This Thing Called Love."

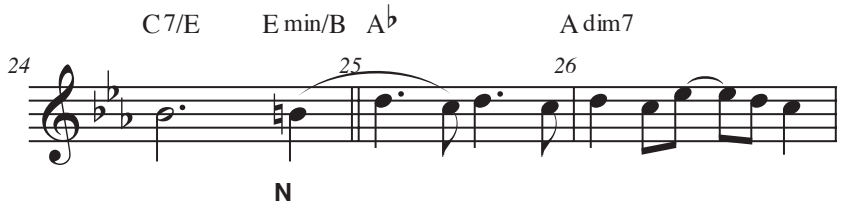
The large-scale juxtaposition of parallel minor and major modes is particularly effective because the natural 6th scale degree (c-natural) is heard in relationship to the flatted 6th scale degree that precedes it (c-natural). This device has an uplifting effect with the "darker" sounding minor harmony giving way to the brighter sound of the major key. Contrasts of this type were not uncommon in popular songs of the day. Irving Gordon's "Unforgettable" provides one well-known example.[16] (fig. 2.12)

Figure 2.12



The use of c-flat is further enhanced in m. 24 when it is spelled as a b-natural. In this context, it functions as a chromatic lower neighbor to c-natural in m. 25. (fig. 2.13)

Figure 2.13



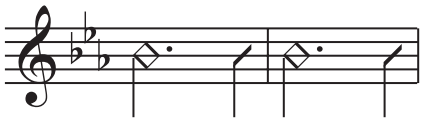
The fact the Porter employs this note immediately before the song's apex is no accident. By using it in a context unrelated to the song's parallel minor key (as a chromatic lower neighbor), he creates a contrast with measures 1-8 and raises our awareness of the note's special significance.

16 Irving Gordon, "Unforgettable," *The New Real Book, Volume 2* (Petaluma, CA: Sher Music, 1991), 399.

Rhythmic Design

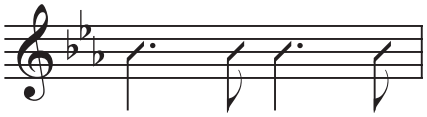
Perhaps the most pervasive aspect of "All of You" is its repetitive rhythmic profile. In measures 1-12 and 17-24, each bar is approached by an offbeat quarter note pickup that proceeds to a dotted half note in the following measure. (fig. 2.14)

Figure 2.14



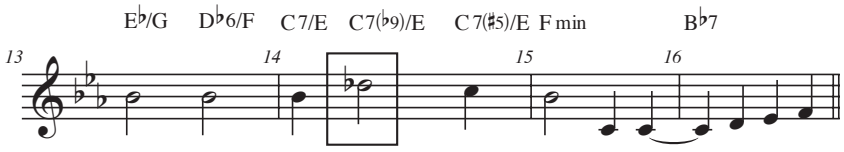
Additionally, this rhythm is employed in an accelerated fashion at the song's apex in measures 25-26. (fig. 2.15)

Figure 2.15



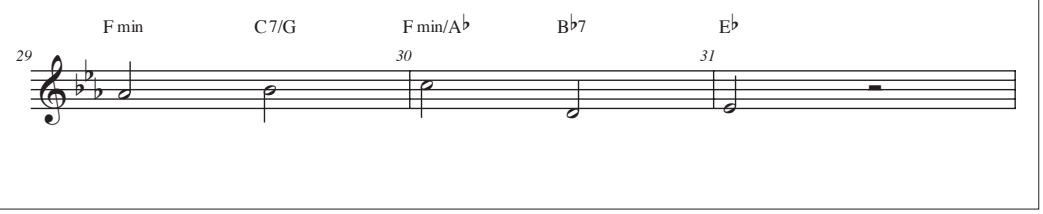
These repeating, syncopated figures create an ongoing rhythmic tension that is resolved at the ends of the B and C sections through strong, non-syncopated gestures. However, this resolution is aborted at B when the non-syncopated half notes in measure 13 proceed to an accented offbeat in measure 14. (fig. 2.16)

Figure 2.16



The "blue note" in measure 14 (d-flat) stands out as an unprepared dissonance.[17] This highlights the unexpected syncopation, contributing to an unsettled feeling and helping to propel the song into the second A section. The promise of resolution, which is thwarted at the end of B, must therefore wait until the end of the song (measures 29-31), where it is all the more fulfilling. (fig. 2.17)

Figure 2.17



Interaction of Formal, Melodic, Harmonic and Rhythmic Designs

More than anything else, "All of You" demonstrates Porter's ability to direct multiple aspects of the form, melody, harmony and rhythm towards a climax in measures 25-26. This peak in intensity is achieved gradually. The accented passing tones that characterize the beginnings of formal units progress from creating slightly colorful harmonies in measures 1, 9 and 17 to very colorful harmonies in measures 25-26. As well, the repeating rhythmic profile of the song "accelerates" from a 1-bar pattern over most of the piece to a 1/2-bar pattern, also in measures 25-26. Finally, the melodic profile subtly works its way through the first half of the form towards a registral peak.

Chapters Three and Four will demonstrate how the Miles Davis quintet is also able to coordinate an intensification of multiple aspects of melody, harmony and rhythm during the improvised solos. Each solo builds to a discernable climax in a unique manner that mirrors the composition itself.

Initial Jazz Interpretations

Much has been made over the years of the influence of Ahmad Jamal on Miles Davis. Indeed, Davis' original quintet from the mid 1950s recorded some of the same repertoire performed by Ahmad Jamal's seminal trio earlier in the decade, including "All of You." Jamal's

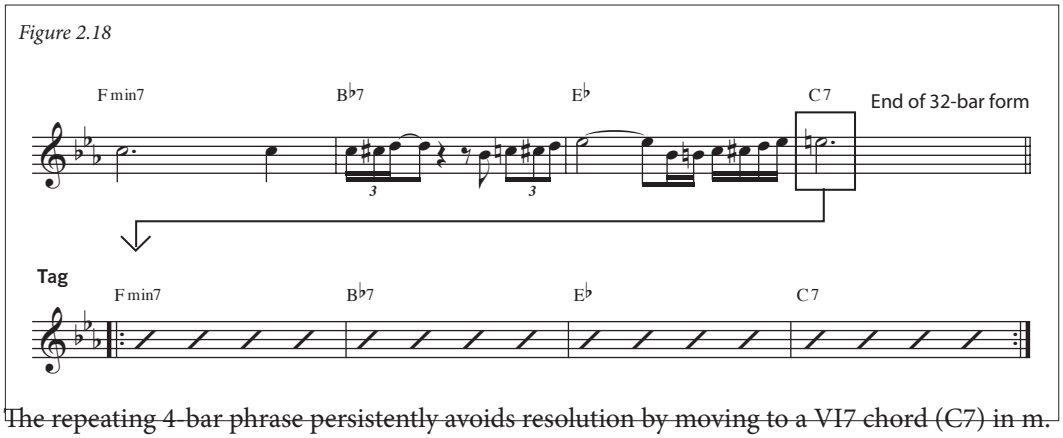
17 Forte, "Secrets of Melody," 617. The use of "blue notes" is an effect that Porter often uses to color important moments in a song. Its use here, in conjunction with syncopation, indicates the influence of jazz on Porter's style.

influence is not only apparent in Davis' choice of songs, but also in Davis' phrasing style and with the ensemble's approach to interaction, especially on standards from the Great American Songbook. With this in mind, we will examine Jamal and Davis' earliest versions of "All of You,"[18] illuminating Davis' original conception of the piece.

Formal Treatment

Both early versions of "All of You" by Jamal and Davis are basically loyal to the 32-bar/ ABAC form of the original. What makes them different is the addition of a repeating 4-bar "tag" at the end of the refrain.[19] As with many of the elements that define Davis' "All of You," the use of a tag section originates with the Ahmad Jamal Trio. Here, Jamal uses the tag at the end of the final chorus of the performance.[20] (fig. 2.18)

Figure 2.18



The repeating 4-bar phrase persistently avoids resolution by moving to a VI7 chord (C7) in m. 4 instead of staying resolved on the tonic. Jamal maintains interest during this monotonous chord progression by playing softly and by gradually building the dynamics and register of his line until the very end of the performance. This gradual building during the tag foreshadows several elements of Davis' style, a discussion reserved for later chapters.

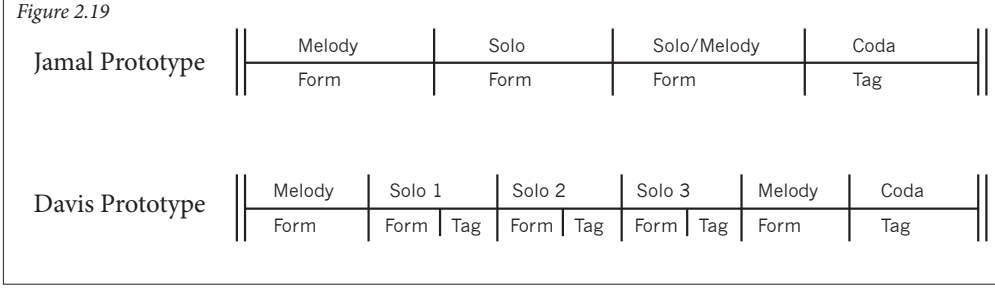
In addition to utilizing a repeating tag section at the end of the performance, Davis inserts a tag at the end of each solo. (fig. 2.19)

18 Ahmad Jamal Trio, *Chamber Music of the New Jazz;* Miles Davis Quintet, *'Round About Midnight.*

19 Barry Kernfeld, ed., "Tag," in *The New Grove Dictionary of Jazz* (New York: St. Martin's Press, 1994), 1184. "A phrase (usually of a few bars, sometimes no more than a motif) added to the end of a theme, chorus, or (most often) an entire piece."

20 For the purpose of this study, Jamal's version of "All of You" is transposed to the original key, Eb.

Figure 2.19

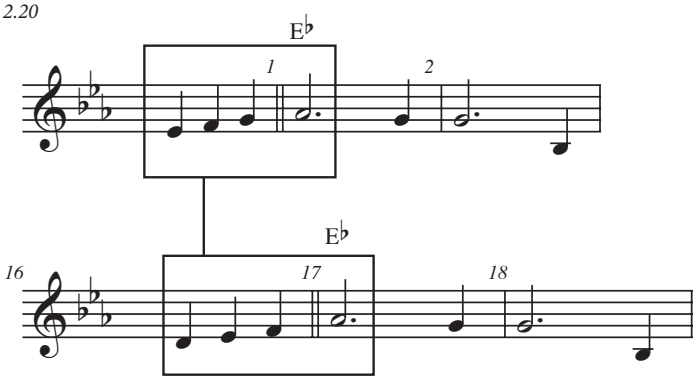


The procedure for initiating a tag requires that the soloist cue the rhythm section that he will not be returning to the beginning of the regular form of the refrain. As well, the soloist must be able to cue the rhythm section that he is about to complete his improvisation on the tag section so that they will be ready to return to the top of the form for the next soloist. The addition of these "tag sections" allows the soloists to depart from the constraints of the song's fixed formal structure. This new degree of freedom from formal constraint, though cloaked in the traditional "hard bop" styles of the day, foreshadows the arrival of "free jazz" in the late 1950s.[21]

Melodic Treatment

One of the subtle aspects of "All of You" is the slight difference between the pickup notes that precede the first A section and the pickup notes that come before the second A section. (fig. 2.20)

Figure 2.20

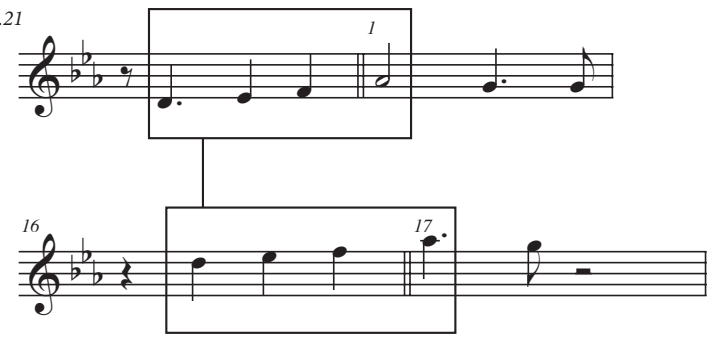


21 David Such, *Avant-garde Jazz Musicians: Performing "Out There"* (Iowa City: University of Iowa Press, 1993), 4. Such states that the lack of "adherence to either a twelve-bar or thirty-two-bar form" is one of the three characteristics distinguishing "out jazz" (free jazz) from "hard bop."

Starting the pickup phrase on d instead of e-flat in measure 16 allows for smooth, step-wise motion from c to f. More importantly, when the line skips from f to a-flat at the beginning of the new phrase, it heightens the accented dissonance and makes the resolution to the primary melodic tone (g) more fulfilling than the first time.

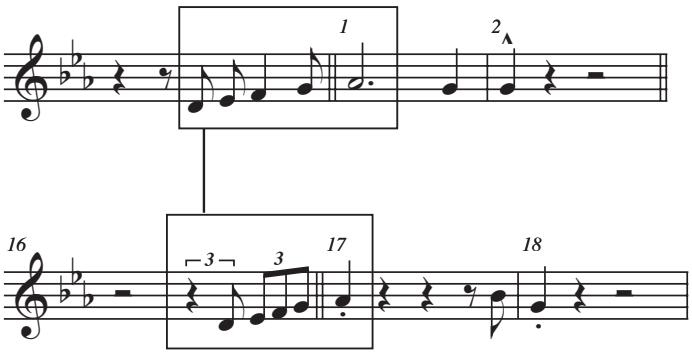
An examination of the Jamal recording finds that he ignores this contrast between pickup notes. Instead, he utilizes the pickup notes to the second A section for both A sections, eliminating the heightened tension of the original version. (fig. 2.21)

Figure 2.21



A quick review of all of Davis' early recordings of "All of You" reveals that he too plays both pickup phrases the same way.[22] (fig. 2.22)

Figure 2.22



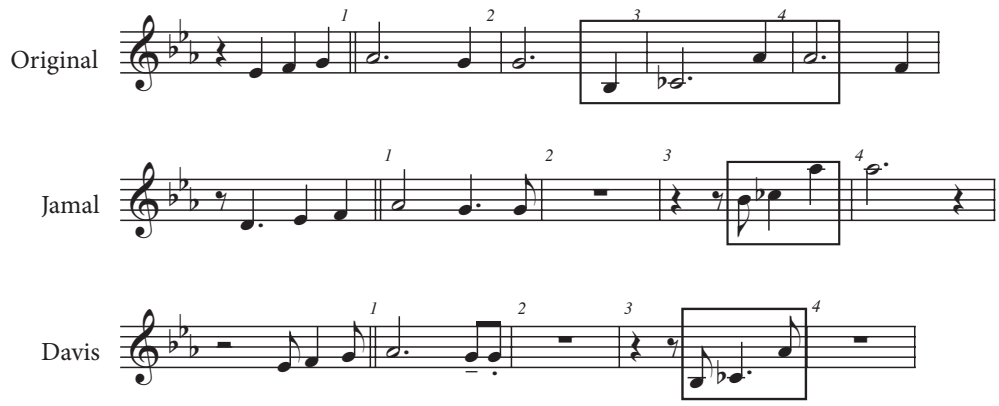
An examination of these recordings suggests that Davis learned "All of You" not from the sheet music, but from listening to Jamal's recording. This reliance on secondary sources is common

22 Davis mostly plays the same notes during the opening phrase in all of his live recordings. The one exception is the primary take of "All of You" from *'Round About Midnight* when he starts the melody, correctly, on e-flat. Even so, Davis plays the opening phrase starting on d in the alternate take from the same session, raising the possibility that the final take may have been edited to eliminate the d from the beginning. The example presented here is from this alternate take.

in jazz. The result here is a tendency by Davis (and Jamal, for that matter) to "give away" some of the more colorful moments of the song.

Jamal's influence on Davis can be seen not only in Davis' choice of notes, but also in how he phrases them. This is especially evident in measures 3-4 of the melody when both Jamal and Davis "lay back" on the original phrasing of the tune. (fig. 2.23)

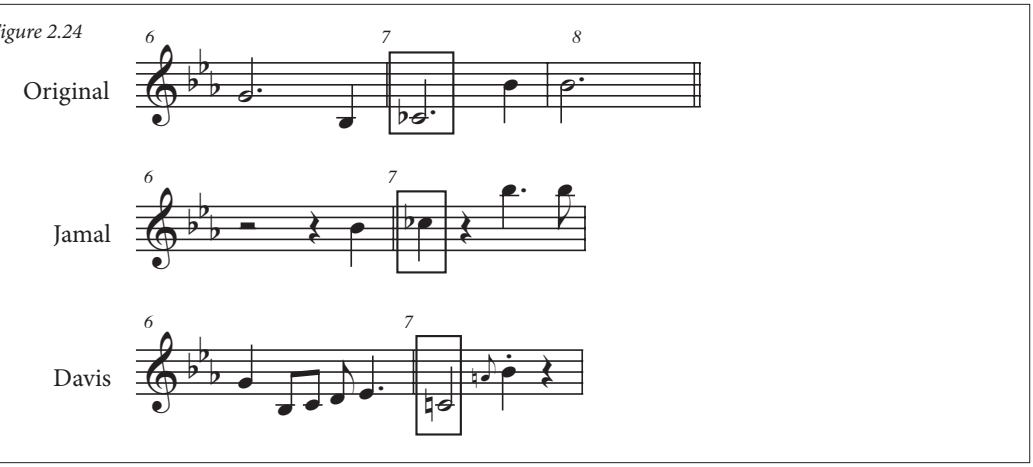
Figure 2.23



Measures 7-8 represent the one instance where Jamal plays the melody correctly and Davis once again "gives away" a special moment. (fig. 2.24)

Why Davis chooses a c-natural here instead of c-flat is perhaps unknowable. One might

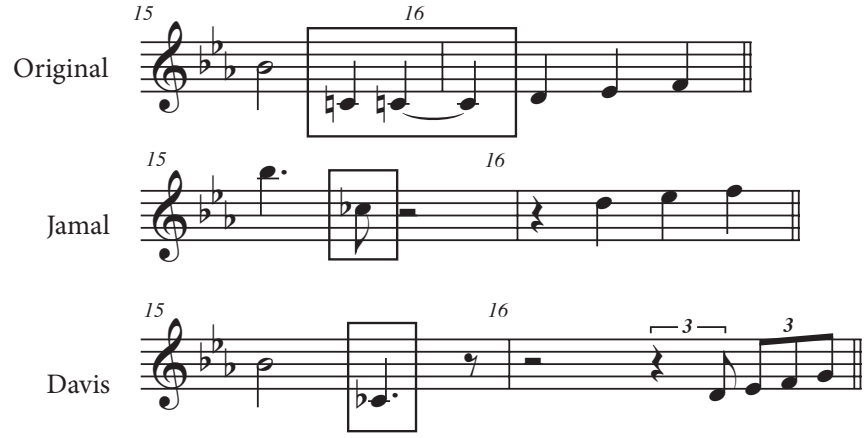
Figure 2.24



speculate that Davis sensed the special quality of this c-natural as it occurs during the second A section, and that it "stuck" in his head as the "right" way to play the melody. It is also possible that the rhythm section was unaware of the correct melody and harmony during the original recording session and played chords that forced Davis in a different direction. In any case, and as with the pickup phrases, Porter's carefully constructed contrast between the c-flat in m. 7 and the c-natural in m. 23 is negated.

In measures 15-16, the situation is reversed. Here, Jamal and Davis play a c-flat instead of what should be a c-natural. (fig. 2.25)

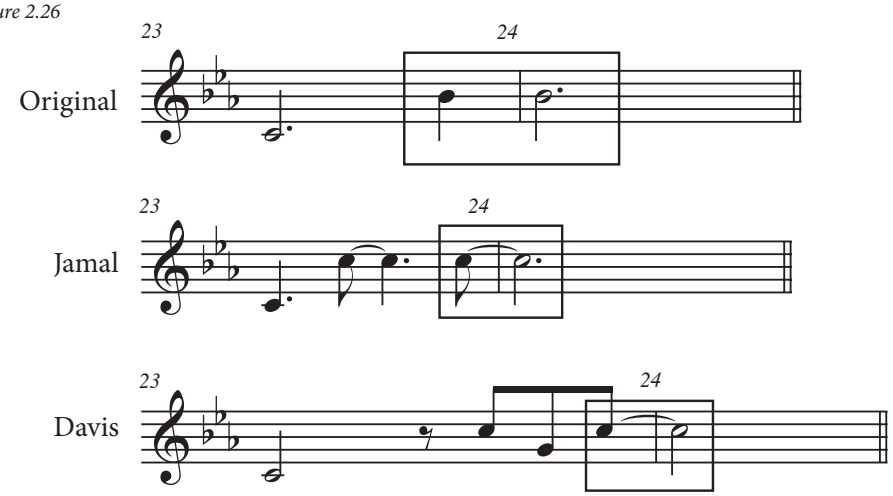
Figure 2.25



With yet another c-flat out-of-place in the melody, Porter's careful juxtaposition of major and minor modes disappears. However, we see later how this alteration to the melody leads to a colorful new chord progression that otherwise would not have been possible.

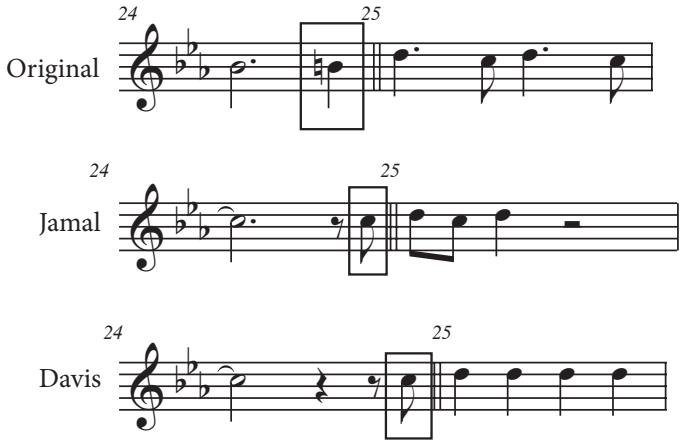
In measures 23-24, both Jamal and Davis alter the melody, going to c-natural instead of a b-flat. (fig. 2.26) This is yet another piece of evidence suggesting that Davis learned the song from Jamal's version. In Davis' version, the c-natural in measures 23-24 at least provides a contrast with measures 7-8. In this sense, Davis acknowledges the difference between the A sections.

Figure 2.26



Leading up to the song's apex, Jamal and Davis have ignored the b-natural that leads into measure 25. (fig. 2.27)

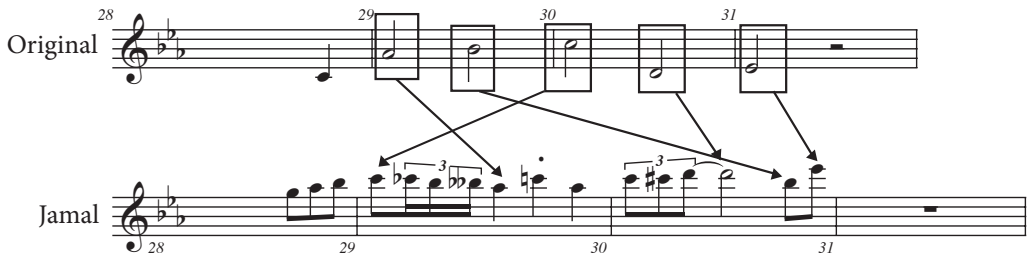
Figure 2.27



With this alteration, the delicate placement of b-natural and its structural juxtaposition with c-flat is completely eliminated.

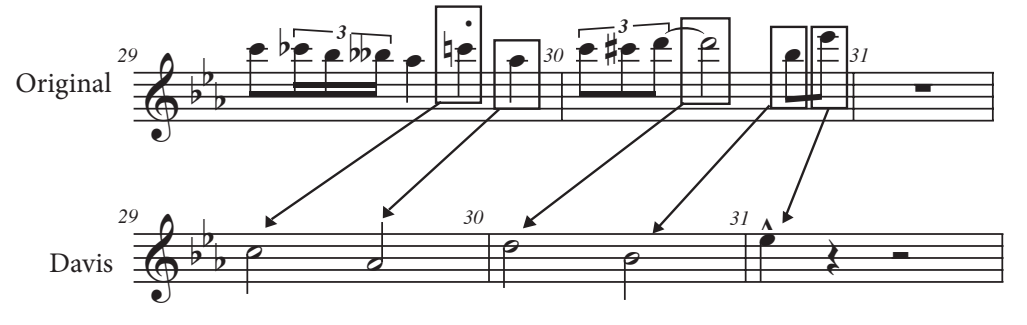
Perhaps the most important alteration of the melody occurs in the final phrase of the song. The following example compares the original with Jamal's recording. (fig. 2.28)

Figure 2.28



Jamal's new phrase represents a reordered collection of the same notes from the original song. Jamal plays a variation of this phrase at the end of every chorus, and the following example demonstrates how it influences Davis. (fig. 2.29)

Figure 2.29



As with the original melody, this line is strong and leads unambiguously towards a resolution to the tonic. Unlike Jamal, Davis avoids using this phrase at the end of the melody and instead waits until the end of his solo where the resolution is even more gratifying. Davis adopts this phrase as a "cue" by which he indicates to the rhythm section his intention to end the tag section and complete his solo. In later sections and chapters, this phrase is referred to as the "transition motive."

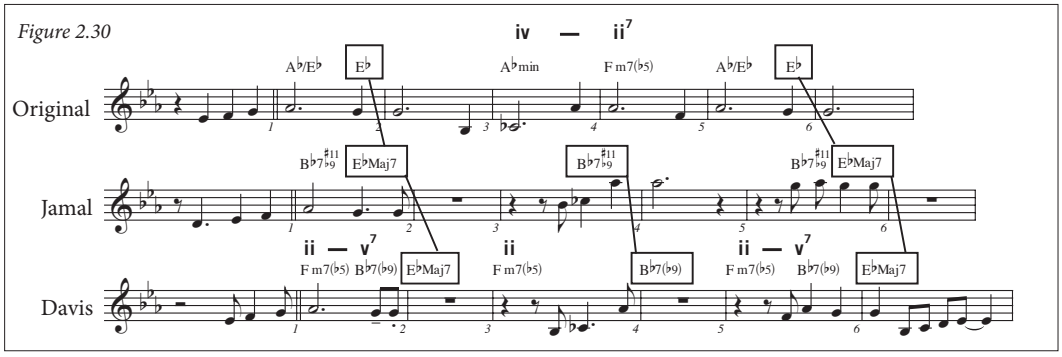
Harmonic Treatment

In both the Jamal and Davis recordings, there is a basic adherence to the harmonically important aspects of the original song's structure. This includes major appearances of the tonic chord (m. 2, m. 6, m. 18, m. 22, and m. 31), and the half-cadence at the end of the first 16-bar period. These similarities aside, the most significant differences between the recordings are in their treatment of harmony.

To a large extent, these variations are the result of contrasting stylistic influences. Whereas Jamal's harmonic conception is more rooted in the "swing" style, the Davis quintet's approach is clearly derived from the "bebop" tradition.[23] Moreover, the Davis quintet utilizes a unique harmonic approach that easily applies to most standard 32-bar song forms. This approach emphasizes the use of chromatic ii-V progressions and tri-tone substitutions, and is an important aspect of the Davis quintet's conception of popular songs into the mid-1960s.

Harmonic Support During Primary Melodic Statement

The following example is a comparison of the first 6-bars of Cole Porter's harmony with Jamal and Davis' harmonies. (fig. 2.30)



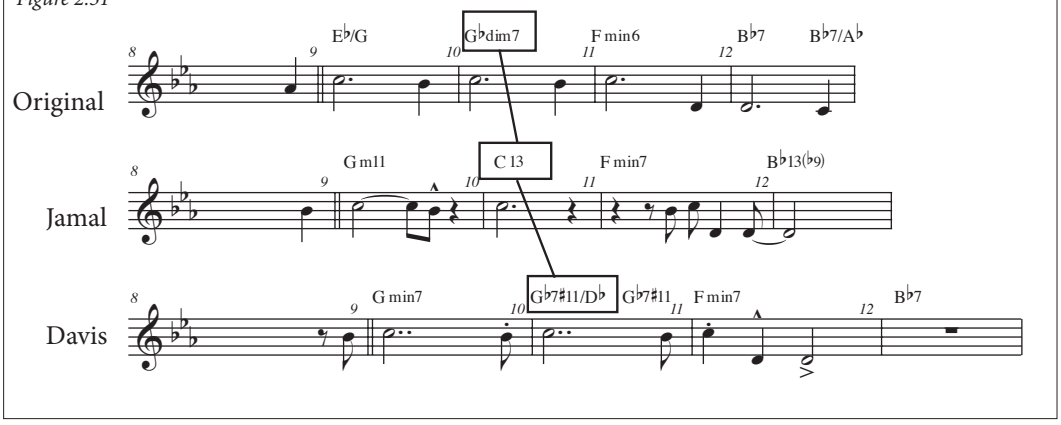
What must first be noted is the relative harmonic simplicity of the original. Porter prolongs the tonic through modal mixture, leading from the iv-minor chord in m. 3 (a-flat minor) and ii-half-diminished chord in m. 4 (f half-diminished) to the tonic in measures 5-6 (e-flat). In contrast, both Davis' and Jamal's versions replace the subdominant motion in measures 3-4 with V7 (Bb7), providing a different resolution to the tonic. A good deal of jazz improvisational vocabulary is built around V-I relationships, so this may in part explain the conversion

23 Ted Gioia, *The History of Jazz* (New York: Oxford University Press, 1997), 253.

from iv/ii to V7. As well, this vocabulary is designed largely around simple chord relationships that don't necessarily take specific contrapuntal motion into account.[24] This would explain why the accented passing chord in m. 1 (a-flat) is also changed to V7. Regardless of whether iv/ii-I or V7-I is used, a sense of tension with resolution to the tonic chord is achieved. The primary difference between the Davis version and the Jamal version is the insertion of ii chords before the V7 chords. This frequent use of ii-V7 progressions places the Davis quintet squarely in the "bebop" tradition.

An examination of the B section (measures 9-16) shows both Jamal and Davis more or less in step with the original. The only important point of departure is in m. 10. (fig. 2.31)

Figure 2.31



In Porter's original, the melody in measure 10 is harmonized with a diminished 7th chord (Gbdim7) passing between Gmin7 and Fmin7. The Jamal and Davis versions, however, once again show a preference for using dominant-tonic relationships (V7-I). To that end, Jamal uses C7 to tonicize Fmin7, and Davis uses Gb7#11/Db. The Davis quintet's use of a tri-tone substitution is more colorful than Jamal's C7 because of the major 7th interval between the bass and melody and tri-tone interval between the melody and root of the chord.

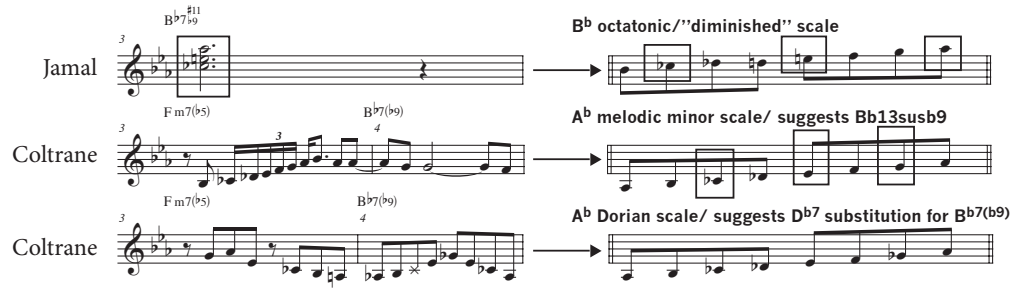
Harmonic Support During Solos

The harmonies used during the melodic statement become significantly more flexible during the solos. Here again, there exist fundamental differences between the Jamal trio

24 While specific voice leading may be indicated in chord symbols via extensions or "slash" chords, it's often replaced by more simplistic versions of the same harmonies during solos, giving soloists more choices as to different voice leading trajectories.

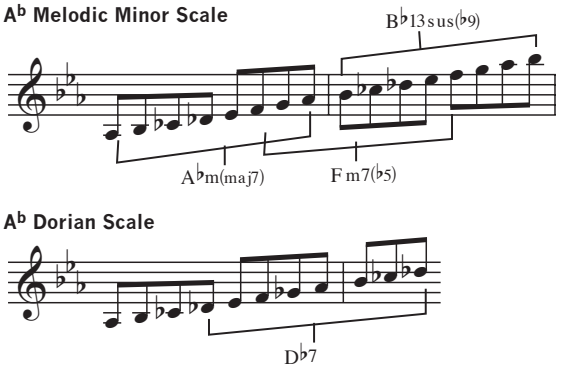
and Davis quintet. The most telling of these differences is in measures 1-6 of the form. As discussed, both versions utilize V7-I progressions here. However, Jamal and Davis employ different types of extensions on the V7 chords, implying contrasting chord/scale relationships. While the basic V7-I function remains the same in both versions, the use of these different scales represents a distinctly different set of colors between them. (fig. 2.32)

Figure 2.32



Jamal's chords and improvised lines utilize the octatonic scale, imposing a symmetrical character on the chord progression. A selection of phrases from the Davis quintet tells a different story. Here, the a-flat melodic minor and Dorian scales are employed over the dominant chord (Bb7). These scales are asymmetrical, but more importantly, they directly relate to Porter's original use of Abmin in m. 3. Moreover, these scales allow for a broader range of harmonic implications. (fig. 2.33)

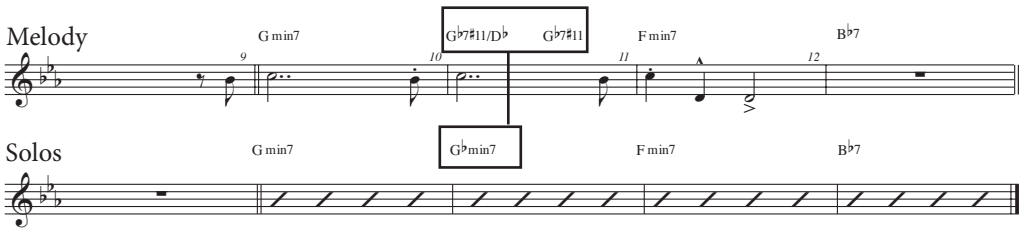
Figure 2.33



With these possibilities in mind, a soloist can play either type of a-flat minor scale over this portion of the form and remain confident the he is "making the changes."

In practice, it is not uncommon for a song's framework to consist of two sets of chord progressions: one for the melody and one for the solos. This is the case in measures 9-12 of Davis' "All of You." In measure 10, the pianist is forced to use Gb7#11 to accommodate the melody note. However, this accommodation becomes unnecessary during the solos. (fig. 2.34)

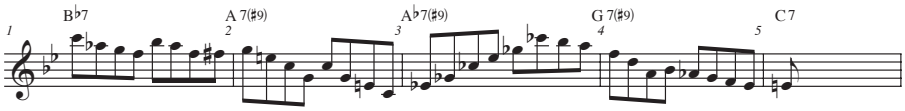
Figure 2.34



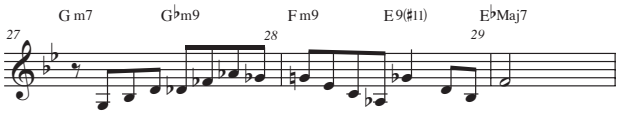
Here, the soloists play Gbmin7 instead of Gb7#11/Db, thus linking Gmin7 and Fmin7 via chromatic parallelism. These descending chromatic ii-Vs are common in Davis' versions of popular songs, especially in later versions of standards like "Autumn Leaves" and "There is No Greater Love." (fig. 2.35)[25]

Figure 2.35

From Herbie Hancock's Solo on "There is No Greater Love"



From George Coleman's Solo on "Autumn Leaves"



25 Miles Davis Quintet, "There is No Greater Love," *Four and More;* Miles Davis Quintet, "Autumn Leaves." *Miles Davis in Europe* (Columbia, CL 2183, 1963). LP.

In summary, Davis' conception of the melody is largely derived from Ahmad Jamal's original recording. And while their harmonic conceptions are also similar, some major contrasts are evident. These differences suggest that Davis' rhythm section may have developed their approach somewhat independently of Davis. Looking ahead to the next section, we will see how these formal, melodic and harmonic approaches to "All of You" evolve through three distinctly different quintets, each of which draws heavily upon the work of their predecessors.

Evolution of Versions by the Miles Davis Quintet

On the surface, the Davis quintet's February 12, 1964 recording of "All of You" seems far removed from earlier versions. Certainly, the members of the '64 quintet had individual styles that distinguished them from members of the earlier quintets. However, a close look at various recordings from 1956 to the 1964 recording shows that the Lincoln Center performance bears many of the marks of the previous versions. Ron Carter speaks indirectly to this point in his interview with Benjamin Cawthra in 2001:

> As I got in college in '57, '58, the Red Garland, Paul Chambers, Philly Joe Jones rhythm section was all anyone talked about and played like . . . they just played like a group. They made the rhythm section sound like a big band. They knew the songs, they knew the forms, they understood the changes. They were all, in their own way, individually creating on their instrument, but they sounded like one.[26]

Indeed, the earlier quintets exerted an enormous influence on the 1964 rhythm section, a fact that will be demonstrated in the following pages via a cursory examination of multiple versions of "All of You."

Formal Treatment

The addition of a tag section at the end of each solo is a unique aspect of the Davis quintet's formal treatment of "All of You." In earlier recordings, this tag is somewhat of an afterthought, a short coda that occurs after multiple solo choruses on the song's normal form. However, as the 1950s push towards the increased freedoms of the 1960s, the tag becomes more and more significant. The following chart demonstrates how the tag gradually develops into the most important section of the solo. (fig. 2.36)

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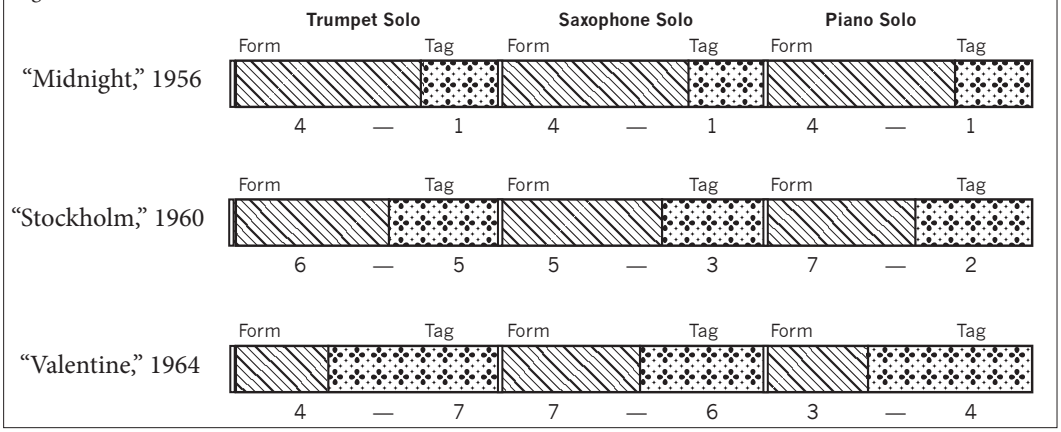
26 Early, Gerald, ed. *Miles Davis and American Culture* (St. Louis, Mo.: Missouri Historical Society Press, 2001), 99-100.

Figure 2.36

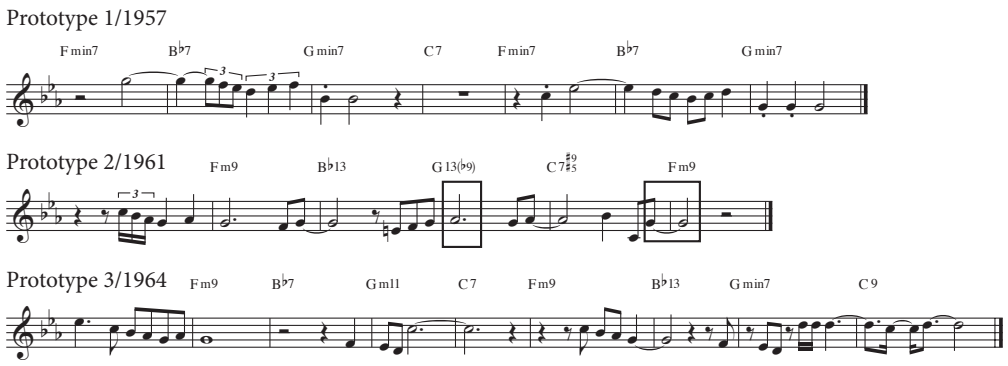


As indicated in the previous section, navigation into and out of the tag section requires a clear set of cues by which the rest of the ensemble might realize the soloist's intentions. To this end and over the course of multiple performances, Davis develops two recognizable motives: the "Tag Motive," and the "Transition Motive." These motives serve to guide the rhythm section into and out of the tag while suggesting the emergence of a larger formal plan that transcends the repeating 4-bar chord progression.

Tag Motive

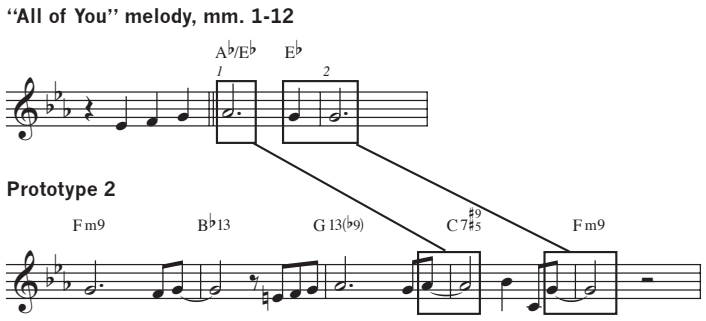
The "tag motive" is a recognizable phrase that Davis uses to initiate the tag section of his solos. As well, he reintroduces this motive later in the tag as a way of "resetting" the dynamic and building towards a final climax. The following figure is a chronological comparison of these motives as they appear at the beginnings of Davis' tag sections. These excerpts are organized into three prototypes that represent each of the three quintets that recorded "All of You." (fig. 2.37)

Figure 2.37



A close examination of the second and third prototypes reveals an intimate relationship with aspects of the original melody. Prototype 2 effectively evokes the opening notes of the melody by exploring the relationship between a-flat and g. (fig. 2.38)

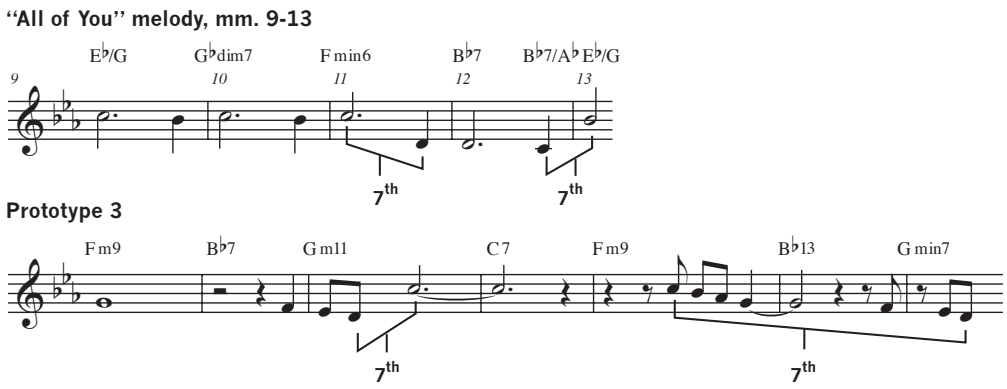
Figure 2.38



Davis' persistent use of a-flat forces Wynton Kelly to change the harmonies over the third and fourth bars of the repeating chord progression. The resulting harmonies lend a new degree of color to the performance and place the a-flat in a radically different context from the original melody.

A different comparison to the melody may be drawn with Prototype 3. (fig. 2.39)

Figure 2.39

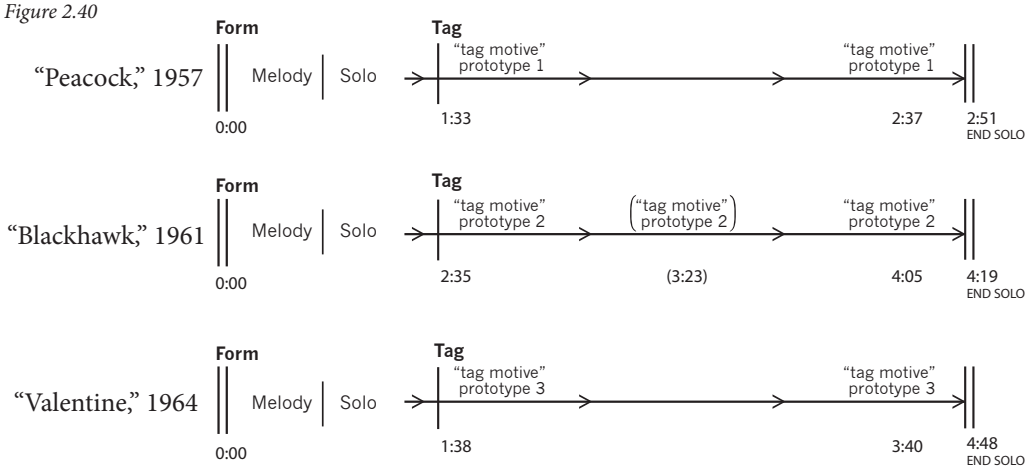


In these instances, Davis mimics the melodic profile of "All of You" with the wide leaps and large registral spans that are so characteristic of the piece.

In all of the prototypes, there exists a lyrical quality resulting from longer note values and the frequent use of diatonic and step-wise motion. We also find that the majority of these prototypes are focused on g, the primary melodic tone of the piece. The combination of lyrical qualities and allusions to the melody make these phrases extremely effective as cueing devices.

When Davis reintroduces these motives later in the tag section, it is often as a prelude to the climax of his performance and the end of his solo. (fig. 2.40)

Figure 2.40



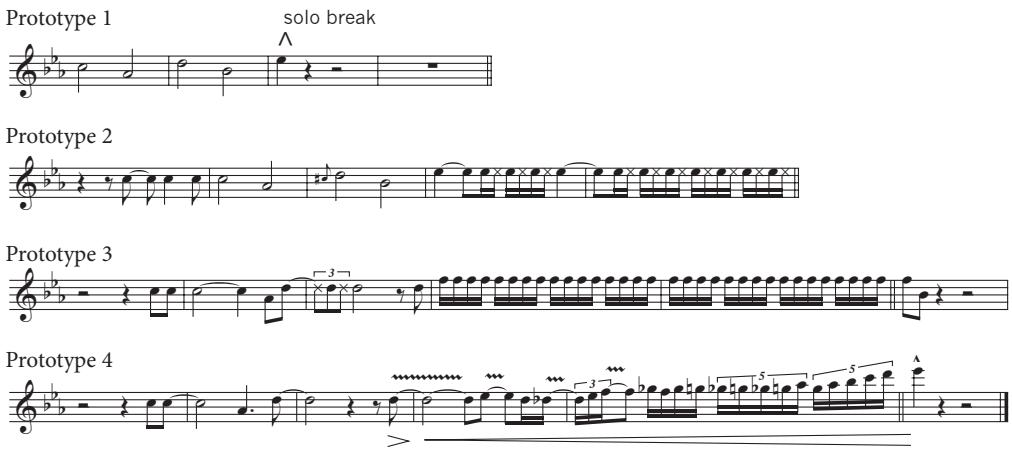
Here, the tag motive acts as a cue for the rhythm section to build into the end of Davis' solo. This cue provides the rhythm section an opportunity to mentally prepare for the next solo where they will return to the regular form of the song.

Transition Motive

As mentioned in the previous section, the "transition motive" is Davis' cue to the rhythm section that he is ending the tag section and completing his solo (see figure 2.29). This phrase is derived from Ahmad Jamal's variation of the final bars of "All of You." Unlike the "tag motive," the essential structural pitches of the "transition motive" remain unchanged through years of multiple performances. However, Davis' approach to the ends of the phrases undergoes significant changes. (fig. 2.41)[27]

27 Davis, '*Round About Midnight*; Miles Davis, *Peacock Alley St. Louis February 16th and 23rd*, (St. Louis, Soulard, 1957).CD; Miles Davis Quintet, *Miles Davis In Person: Friday and Saturday Night at the Blackhawk*, (Columbia, CL 87106,1961). CD; Miles Davis Quintet, *My Funny Valentine*, (Columbia, CL 2306,1964). CD.

Figure 2.41



Multiple observations can be made from these examples. In the first example, Davis' solo ends on the downbeat of measure 3, leaving the solo break for the next soloist. In all subsequent examples, however, he plays through the break, an effective device that carries Davis' momentum into the following solo. By playing through the break, Davis prolongs the tension that would have naturally resolved on the downbeat of measure 3. This prolonged tension is especially effective in Prototypes 3 and 4 because of Davis' use of f and d, pitches that are unresolved in the key of E-flat.

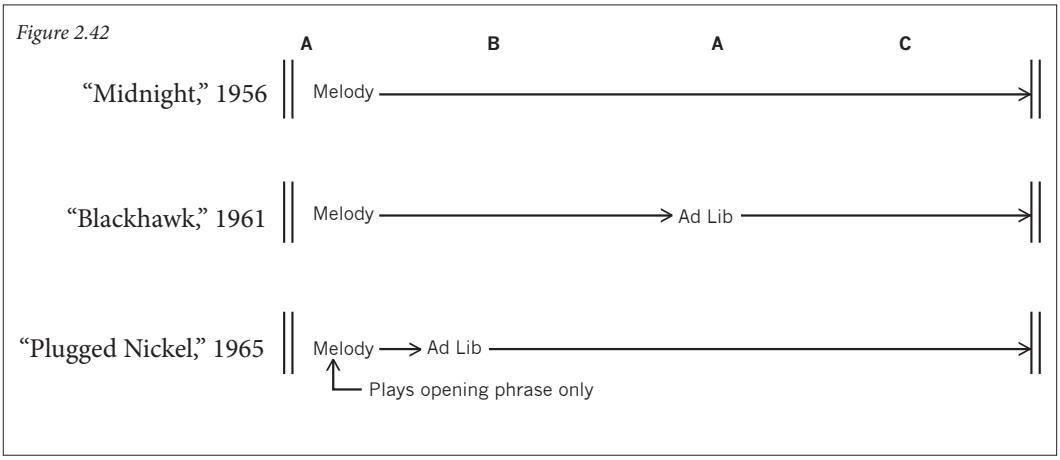
Each prototype ends in a higher register than the last, adding more and more drama to Davis' final climaxes. The "transition motive" from the Lincoln Center concert presents the highest final register of all of the examples. Here, Davis briefly focuses on d in measure 3 before playing an ascending figure through the solo break. The jagged rhythms add to the tension of the gesture, and the phrase dramatically concludes on the tonic (e-flat) at the downbeat of the next chorus.

An examination of Davis' first recording of "All of You" reveals that he is initially the only soloist to use the "transition motive." In subsequent recordings of the song, the other soloists from each quintet adopt the motive, one of the many subtle examples of Davis' influence.

Melodic Treatment

The evolution of Davis' treatment of the "All of You" melody is similar to his approach to other popular songs during the same period. In early versions, Davis stays more or less true to the melody, occasionally adding ornaments or altering certain notes. However, subsequent versions reveal Davis' gradual abandonment of the melody with more adventurous ornamentations and improvisations dominating his performances. (fig. 2.42)

Figure 2.42



Despite his increasing tendency towards melodic abstraction, Davis consistently performs the melody in a recognizable way during the opening phrase. (fig. 2.43)[28] This initial "nod" to the melody likely represents a compromise between Davis' artistic impulses and the demands of his audience, a great many of whom were fans of Davis' earlier and less adventurous versions of the same songs. These opening phrases also serve as convenient alternatives to "counting-off" the rhythm section. Without any reference to tempo, a recognizable phrase from the beginning of a song is all the rhythm section requires to initiate their accompaniment.

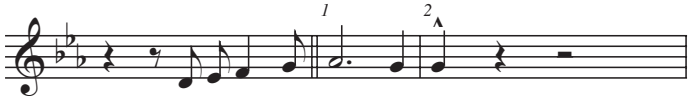
Figure 2.44 illustrates that the rhythm section waits until the end of Davis' opening figure before entering. (fig. 2.44)[29]

28 Davis, *'Round About Midnight*; Davis, *Peacock Alley;* Davis, *Blackhawk;* Miles Davis, *Miles Davis in Europe,* (Columbia ,CL 2183, 1963). LP.; Davis, *My Funny Valentine.*

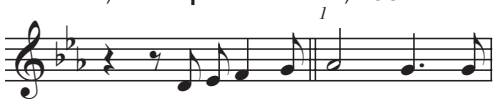
29 Davis, "All of You," Valentine. Davis, "Autumn Leaves," Europe.

Figure 2.43

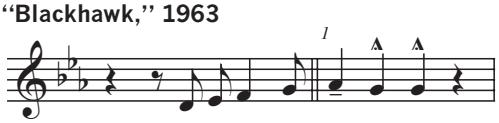
"Midnight," alternate take, 1956



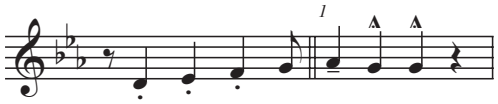
"Peacock," both performances, 1957



"Blackhawk," 1963



"Europe," 1963



"Valentine," 1964

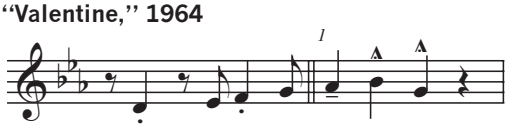
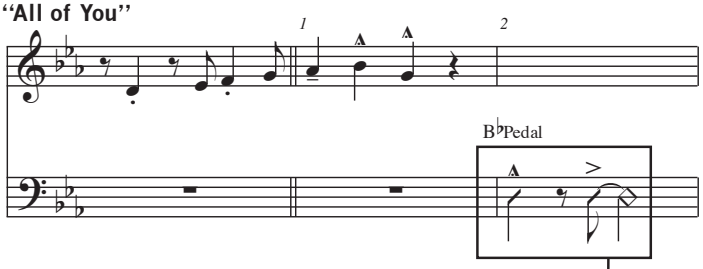
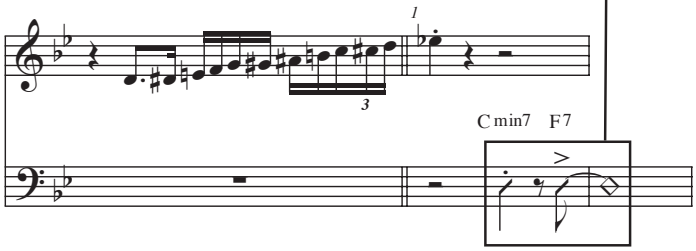


Figure 2.44

"All of You"

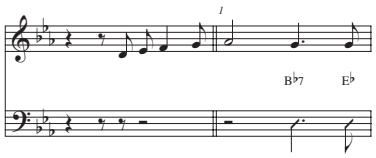


"Autumn Leaves"

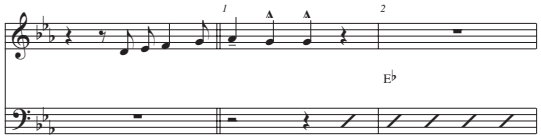


Note the similarity between the accompaniment in "All of You" and "Autumn Leaves." In both cases, a short rhythmic motive is used by the rhythm section to establish the tempo of the performance before settling into a standard two-beat style of accompaniment. The following examples show how this rhythmic motive evolves through years of performances of "All of You." (fig. 2.45)[30]

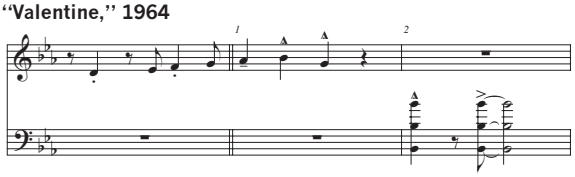
Figure 2.45 **"Peacock," 1957**



"Blackhawk," 1961

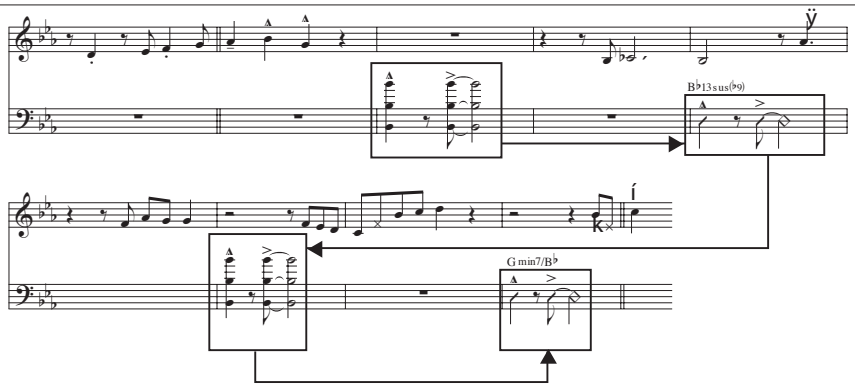


"Valentine," 1964



In the last of these examples, we see that this short rhythmic motive has developed into a full-blown arrangement. (fig. 2.46)[31]

Figure 2.46



30 Davis, *Peacock*; Davis, *Blackhawk*; Davis, *Valentine*.

31 Davis, "All of You," *Valentine,* measures 1-8.

Clearly, this aspect of the 1964 framework is the result of an evolution that began years before when Davis started performing "All of You" without a standard "count-off."

Harmonic Treatment

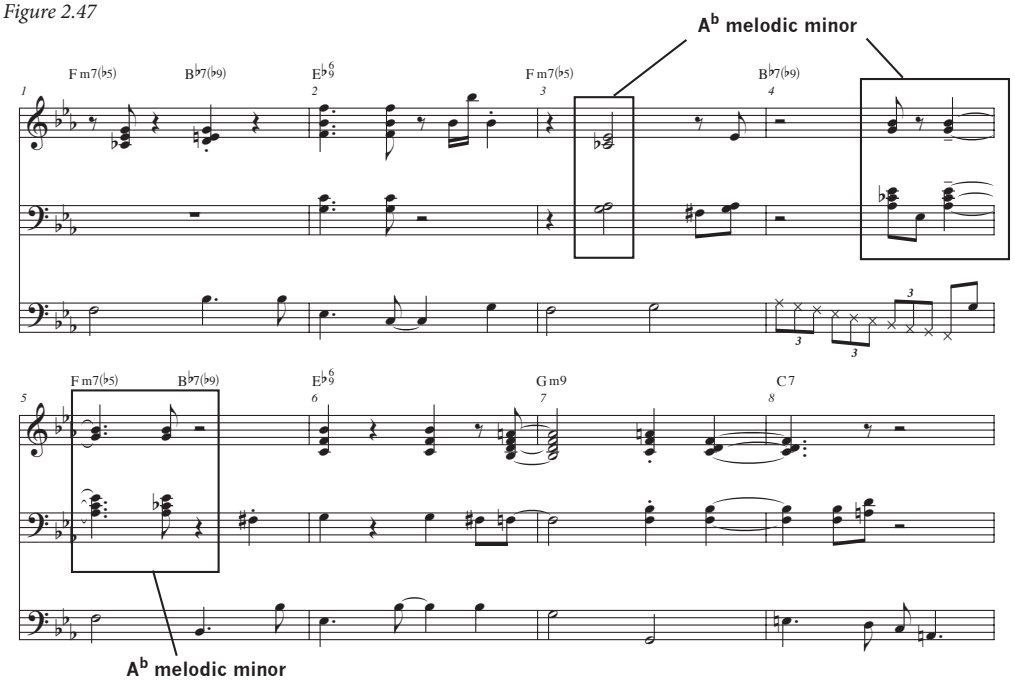
From 1956 to 1964, versions of Davis' "All of You" demonstrate an increased degree of harmonic complexity and color. Aspects of Davis' original harmonic design are altered through new chord extensions, the use of modal interchange, complex chord substitutions and the addition of chromatic passing chords.

Measures 1-6

One of the critical aspects of this evolution involves the pervasive use of the melodic minor scale. At first, the use of a-flat minor in measures 1-6 is represented horizontally. Soloists from the *'Round About Midnight* version use the a-flat melodic minor scale over the normal progression of Fmin7(b5)-Bb7(b9). (see figure 2.33)

In versions with Davis' second quintet, pianist Wynton Kelly presents the a-flat melodic minor scale vertically, adding a new color to the harmony in measures 1-8. (fig. 2.47)[32]

Figure 2.47

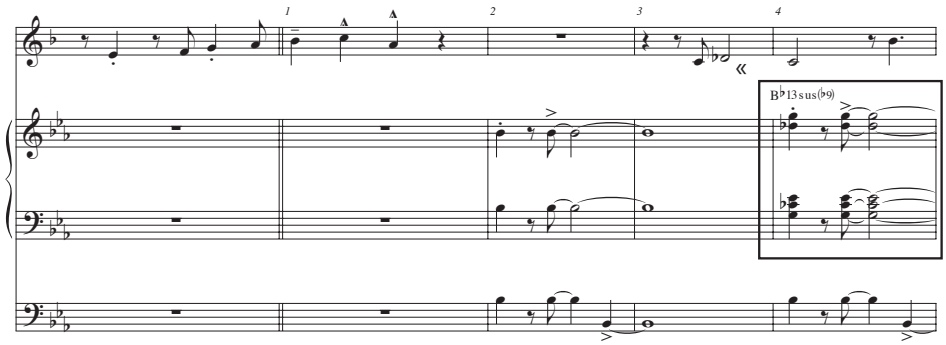


32 Davis, *Blackhawk.*

Despite these vertical representations of A-flat melodic minor, Chambers' bass line remains anchored to a basic V-I progression.

This conception is also present in the version of "All of You" from the 1964 concert at Lincoln Center. (fig. 2.48)

Figure 2.48



Hancock's use of a-flat melodic minor over a V bass pedal (Bb) during the opening statement of the melody results in a colorful Bb13sus(b9) chord.

Also notable in this performance is Ron Carter's bass line under measures 3-4 of the form during the solos. Here, Carter's line suggests Abmin6 as the harmony, a departure from the Fmin7(b5)-Bb7(b9) that characterizes Paul Chambers' lines in previous versions. This return to a subdominant-tonic progression brings the harmony back to where Porter had originally intended.

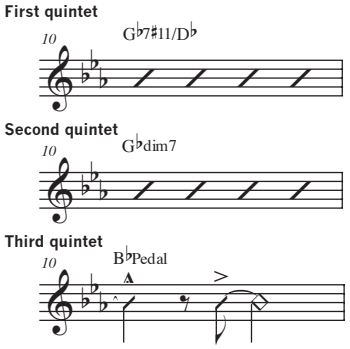
The impact of the melodic minor scale also makes itself known in other measures of the form during the solos. This discussion is reserved for analysis of individual solos in Chapter Four.

Measure 10

The framework to "All of You" accommodates two basic chord progressions at m. 10: one to accompany the melody and the other for solos. In the case of the melodic accompaniment, we find several variations. (fig. 2.49)[33]

33 Davis, *Midnight*; Davis, *Blackhawk*; Davis, *Valentine*.

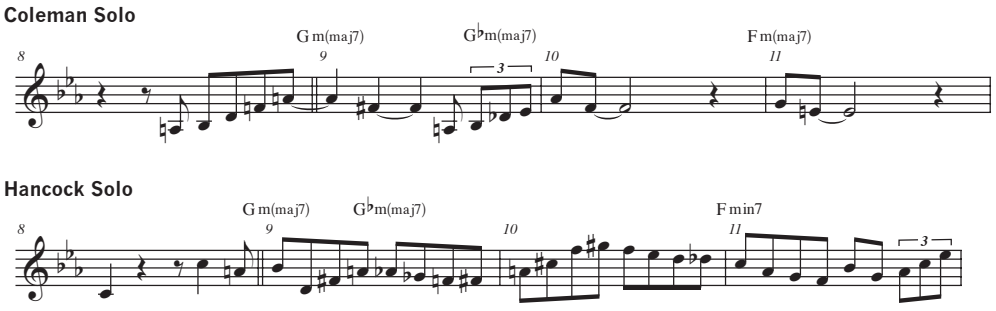
Figure 2.49



The use of Gbdim7 in the versions following *'Round About Midnight* once again brings the harmony closer to Porter's original conception.

As for the solo framework, all three quintets are content in using Gbmin7 in measure 10. In later versions of "All of You," the chromatic string of parallel minor seven chords at measures 9-11 provides an excellent opportunity for soloists to insert the melodic minor scale. (fig. 2.50)[34]

Figure 2.50

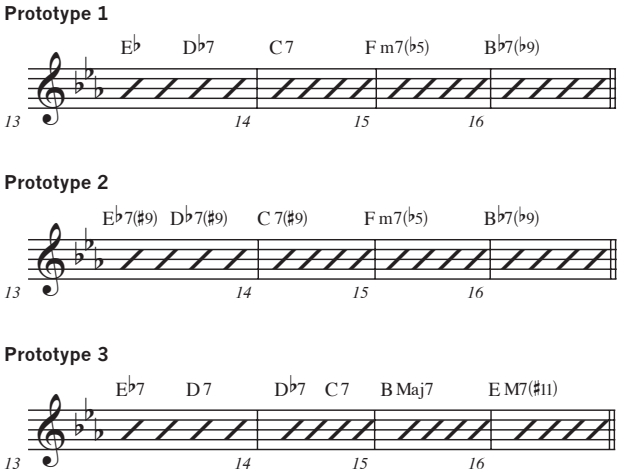


Measures 13-16

Each of the three quintets discussed here provides a distinct way of approaching measures 13-16 of the form. Each prototype features more harmonic complexity than the one that preceded it. (fig. 2.51)

34 Davis, *Valentine.*

Figure 2.51



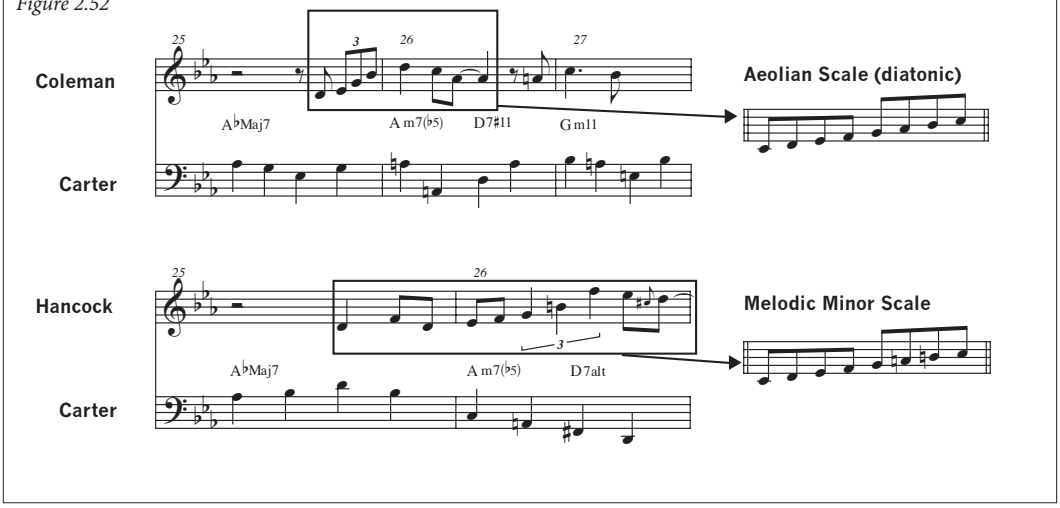
Prototype 2 provides significant new harmonic color with the addition of raised ninths on Eb7, Db7 and C7. In Prototype 3, the insertion of a new chord (D7) and the use of tri-tone substitutions contribute to a significantly higher level of chromaticism. In a sense, the use of Bmaj7-Emaj7#11 in measures 15-16 can be traced to Ahmad Jamal's original version. It is in this version that Jamal alters the melody from a c-natural to a c-flat, an alteration adopted by Davis. This alteration replaces a pitch that is not supported by Bmaj7-Emaj7#11 (c-natural) with one that is (c-flat), creating an opportunity for the substitution and adding a new level of harmonic color to the performance.

Measure 26

In versions by the first two quintets, the harmony at m. 26 is Adim7 for both the melody and solos. This changes in versions by the third quintet. Here, we find that the Adim7 chord at measure 26 of the melody has been converted to Amin7(b5)-D7(b9) during the solos. (fig. 2.52)[35]

35 Davis, *Europe*.

Figure 2.52



Here, Coleman and Hancock use versions of the c minor scale to express the harmony, which is no longer Adim7. This conversion from a diminished chord to a dominant chord recalls a similar contrast in measure 10 where Gbdim7 is changed to Gbmin7 for the solos.

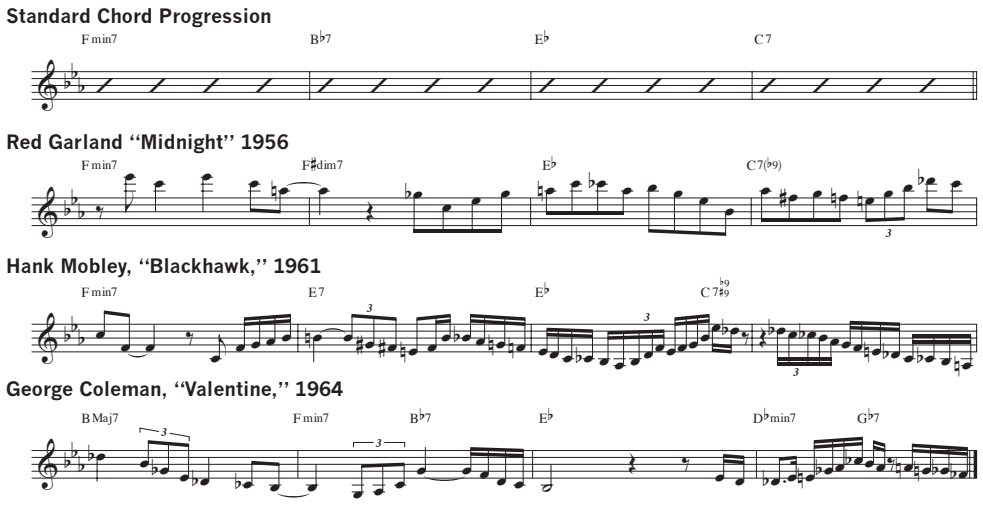
The Tag Section

In order to maintain interest in an expanding tag section, the harmonies gradually become more intricate and daring. Chromatic alterations and unusual chord substitutions become more common as the soloists strive to keep the repeating 4-bar tag from becoming monotonous.

The following comparison demonstrates the growing degree of harmonic complexity in the tag section as expressed over multiple performances. (fig. 2.53)[36] A high degree of familiarity and coordination is required by the ensemble members to execute these substitutions in a cohesive manner. Chapter Four explores this subject in greater detail.

36 Davis, *Midnight*; Davis, *Blackhawk*; Davis, *Valentine*.

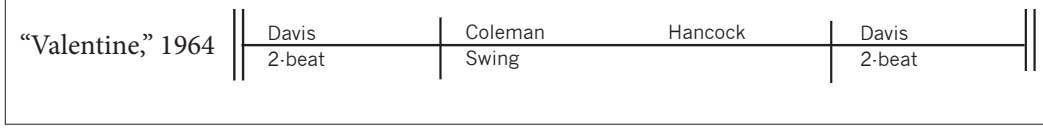
Figure 2.53



Rhythmic Treatment

The basic rhythmic framework of "All of You" remains the same through performances by all three quintets. The bass player and drummer are limited to playing in a two-beat style during Davis' melodic statements and solos, but switch to swing style during the other soloists. (fig. 2.54)

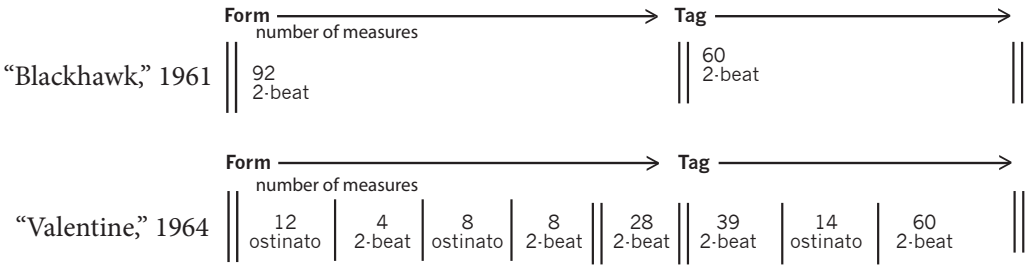
Figure 2.54



This type of partitioning is common in jazz and not unique to the Miles Davis quintet. However, Ron Carter and Tony Williams manage to keep this framework fresh by exploring a variety of rhythmic accompaniment styles while never departing from its basic structure. This constant insertion of ostinato figures and straight eighth-note styles is characteristic of the third quintet's treatment of popular songs. (fig. 2.55)[37]

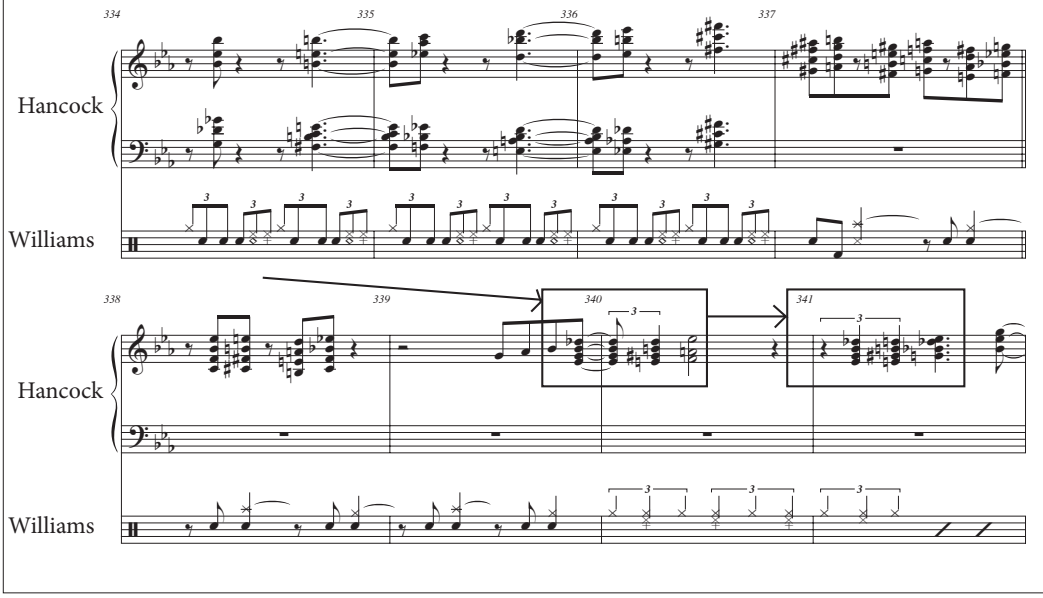
37 Davis, *Blackhawk*; Davis, *Valentine*.

Figure 2.55



An increase in rhythmic complexity is also evident during the solos. Much of this is due to Tony Williams who frequently instigates complex rhythms behind the other performers. (fig. 2.56)

Figure 2.56



There is little precedent in early versions of Davis' "All of You" for this increase in rhythmic activity and complexity, and it represents the most unique and influential quality of his third quintet.

Summary

Chapter Two provides a glimpse into the evolution of "All of You" as performed by the Miles Davis Quintet from 1956-64. An examination of Ahmad Jamal's seminal recording followed by an analysis of Davis' many versions reveals the existence of a "living framework" that informs all subsequent performances of the piece. In the following chapters, this framework serves as a guide for understanding the February 12, 1964 performance with a higher degree of specificity and clarity.

Chapter Three

The "Collective Aesthetic"

Chapter Three examines the Miles Davis Quintet's "collective aesthetic" as exhibited in their approach to performing American popular songs.[1] This shared aesthetic leads to a cohesive approach to building the overall performance and individual solos through the intensification of basic musical elements. Additionally, it includes the incorporation of a variety of "solo styles" and "accompaniment styles." First, we will analyze the collective tendencies of the quintet to increase and decrease varying degrees of intensity at key points of the performance. Next, we will show how the soloists deliberately alternate styles during their solos to affect the accompaniment, and to guide the overall shape of the performance. Finally, we will conclude with a discussion of common rhythm section styles, their role in form delineation, and their correlation with varying degrees of musical intensity.

The "Jazz Aesthetic"

In the field of musicology, there exists an ongoing discussion over the essence of which might be called the "jazz aesthetic."[2] From this discussion, two opposing schools of thought are evident. One holds that the "jazz aesthetic" represents a break from European forms of music, and therefore cannot be judged using the same analytical devices of traditional Western music theory. The other

1 There have been recent attempts to discuss jazz and improvisation in light of the branch of philosophy known as "aesthetics." Stephan Richter's essay "The Beauty of Building, Dwelling, and Monk: Aesthetics, Religion, and the Architectural Qualities of Jazz" draws on Martin Heidegger's essay "Bauen Wohnen Denken" in an attempt to confront the "aesthetical problems" and strengths inherent in jazz improvisation. Similarly, R. Keith Sawyer's text Group Creativity: Music, Theatre, Collaboration expands on the theories of John Dewey and R. G. Collingwood in an attempt to develop an "aesthetics of group creativity." While these approaches to analysis are compelling, they lack the degree of specificity required to address the issues examined here. Instead, this essay relies on a more general definition of "aesthetic," and focuses on the collective "conception of beauty" that informs the performances of the Miles Davis Quintet. For more information, see: Merriam-Webster Online Dictionary (2009), s.v. "aesthetic." The first definition offered is: "a branch of philosophy dealing with the nature of beauty, art, and taste and with the creation and appreciation of beauty." The second definition offered is: "A particular theory or conception of beauty or art: a particular taste for or approach to what is pleasing to the senses and especially sight."; Stephan Richter, "The Beauty of Building, Dwelling, and Monk: Aesthetics, Religion, and the Architectural Qualities of Jazz," African American Review, Vol. 29, no. 2 (1995), 259; Martin Heidegger, "Bauen Wohnen Denken," Vorträge und Aufsätze, (Frankfurt am Main: V. Klostermann, 2000); R. Keith Sawyer, Group Creativity: Music, Theatre, Collaboration (Mahwah, N.J.; London: Lawrence Erlbaum Associates, 2003), 115-116. Sawyer's theories are developed from two texts: John Dewey, Art as Experience (New York: Minton, Balch & Company, 1934) and R. G. Collingwood, The Principles of Art (New York: Oxford University Press, 1938).

2 William J. Harris, The Poetry and Poetics of Amiri Baraka: The Jazz Aesthetic (Columbia: Universiy of Missouri Press, 1985), 13. Harris embraces the term "jazz aesthetic" to describe Baraka's destruction of "Western forms."

school of thought, as represented by historiographers like Gunther Schuller, attempts to apply the Western concept of "coherence" to jazz.[3]

Ingrid Monson adopts this first viewpoint in her text *Saying Something: Jazz Improvisation and Interaction.* Here, she takes Schuller to task for using "criteria derived from ideas of German romanticism and modernism"[4] to evaluate jazz performances.

> Ethnomusicologists have long remarked that these supposedly "timeless" artistic values actually articulate a culturally specific notion of musical art, not an objective, universal framework. . . . In seeking to prove to classically oriented listeners that jazz improvisation is music of merit, he [Schuller] deprecates jazz improvisers who may not share his aesthetic criteria.[5]

In one important sense, Monson is correct. Certainly, there are many "great" jazz performances whose value cannot be determined using Schuller's criteria. Elements such as "swing," "groove," "feeling" and timbre can be difficult or impossible to quantify on the written page. However, a close examination of Schuller's famous analysis of Sonny Rollins' "Blue 7" reveals an important point.[6] Rollins develops his solo thematically in a way that can best be appreciated and understood in the context of traditional Western musical analysis. And though there are other musical elements to be considered here, Rollins' development of his theme and the "cohesiveness" it gives his solo is of primary importance to its overall meaning. This underscores the inescapable fact that jazz is a genre of music that is heavily influenced by and largely constructed in the European musical tradition.

In Brian Harker's essay "Telling a Story: Louis Armstrong and Coherence in Early Jazz," we find an eloquent defense of Western musical analysis:

> To discard every critical tool that is not specifically African-American ignores both the European influence on jazz and the cultural intersection of the two traditions on certain fundamentals (for example, triadic harmony)…Oral histories make clear that jazz musicians have always practiced "close listening" to musical texts, and that they have found… plenty of "significance" in the notes themselves, aside from any explicit cultural ties.[7]

---

3 Brian Harker, "Telling a Story: Louis Armstrong and Coherence in Early Jazz," *Current Musicology 63* (1999), 46. Citing jazz analyses of Schuller and others, Harker describes the concept of "coherence" as "a bedrock value of Western European musical aesthetics."

4 Ingrid Monson, *Saying Something: Jazz Improvisation and Interaction* (Chicago: University of Chicago Press, 1996), 134.

5 Ibid., 134-135.

6 Gunther Schuller, "Sonny Rollins and the Challenge of Thematic Improvisation," in *Musings: The Musical Worlds of Gunther Schuller* (New York: Oxford University Press, 1986), 86-97; The Jazz Review (November, 1958), 6-21.

7 Harker, "Telling a Story," 47.

Harker describes Armstrong as a "storyteller" whose approach to improvisation creates coherence through methods of "logical development and progressive expansion." He goes on to summarize the qualities that make Armstrong's early work so revolutionary, in particular the "inexorable, climactic trajectory of Armstrong's solos." And it is in this "climactic trajectory" that we find a parallel between Armstrong's seminal style and the Miles Davis quintet nearly forty years later.

Even Monson, who seems to reject the notion that jazz can be evaluated using European analytical techniques, is forced to acknowledge this "climactic trajectory" and the coherence created through the use of "large-scale development" techniques in jazz. For her analysis of a Jaki Byard Quartet performance, Monson provides an "intuitive schematic diagram," a visual representation "of the intensification occurring over the course of the performance."[8] Similarly, Todd Coolman's dissertation utilizes intuitive diagrams to describe how the textural, temporal and durational changes in a performance of "Stella By Starlight" lead to an overall structural climax.[9] Though well intentioned, these diagrams are imprecise and fail to accurately convey the specific elements of register, dynamics and rhythmic density that contribute to the peaks and valleys of the performances.

In order to address this lack of precision and to avoid the "intuitive" method of analysis, detailed diagrams have been created using digital waveforms and midi-graphs. These diagrams effectively depict the "climactic trajectory" of the performance and provide an accurate visual representation of dynamics (waveforms), register changes and rhythmic density (midi-graphs). By superimposing them over a chart that indicates other aspects of the performance, one can see how shifts in these areas intersect with elements of form, instrumentation and style. Looking ahead, Chapter Four will show that an adherence to this "climactic trajectory" and the "collective aesthetic" takes a central role in facilitating effective ensemble interaction in the Miles Davis Quintet.

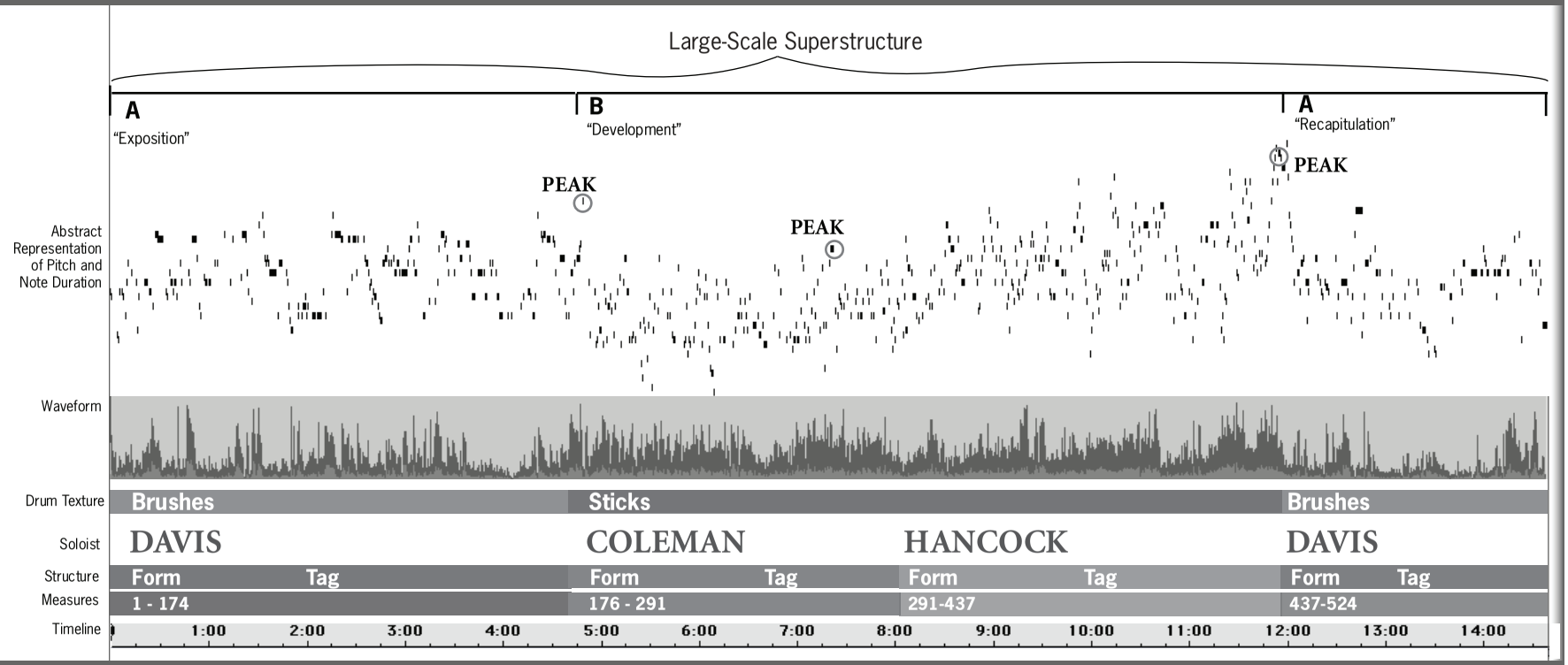
Building Performances Through the Intensification of Various Elements

Overview

Figure 3.1 presents an overview of the entire performance of "All of You."[10] Encapsulated in this diagram are abstract representations of the solos, a waveform that indicates shifts in dynamics, a timeline, indications of instrumentation and an outline of basic formal units. (fig. 3.1)

8 Monson, *Saying Something*, 138-139.
9 Coolman, "Synthesis," 128-132.
10 Davis, "All of You," *Round About Midnight.*

Figure 3.1: All of You Overview



As touched on in Chapter Two, the basic rhythmic framework of "All of You" is comprised of a two-beat feel during Davis' melodic and solo statements, with a swing feel inserted in between.[11] Figure 3.1 illustrates that this contrast in feeling is further enhanced by textural changes in the drum part. Williams uses "brushes" underneath Davis and reserves the more powerful "sticks" for the swing feel that underlies Coleman's and Hancock's solos.[12] Over the course of the entire performance, this partitioning creates a large-scale "super-structure" that shares some of the characteristics associated with other large-scale forms. Figure 3.1 labels the sections of this "super-structure" as ABA, suggesting a ternary form. And while it might not constitute a ternary form in a strict sense, the comparison is apt. Davis states the primary "thematic" material during the A sections with improvisations that are evocative of the melody. Conversely, Coleman's and Hancock's solos during the B section contain contrasting material that is clearly delineated from the rest of the performance. Most compelling is the fact that the peak register, textural[13] and dynamic intensity of the performance is reserved for the moment immediately preceding Davis' restatement of the "melody."[14] From this, we recognize a similarity with classical sonata form where the structural climax is often reserved for the end of the development section.[15]

An examination of the other soloists (Davis and Coleman) is also revealing. They too have reserved the peak register and dynamic intensity of their solos for the ends of their improvisations. From these first examples, we begin to find compelling evidence of a shared aesthetic that guides the decisions of the performers.

Davis' Solo

Figure 3.2 is a detailed representation of Davis' opening melodic statement and solo. An examination of this graphic reveals several of the compelling tendencies and strategies that characterize Davis' style. (fig. 3.2)

---

11 See Figure 2.54.

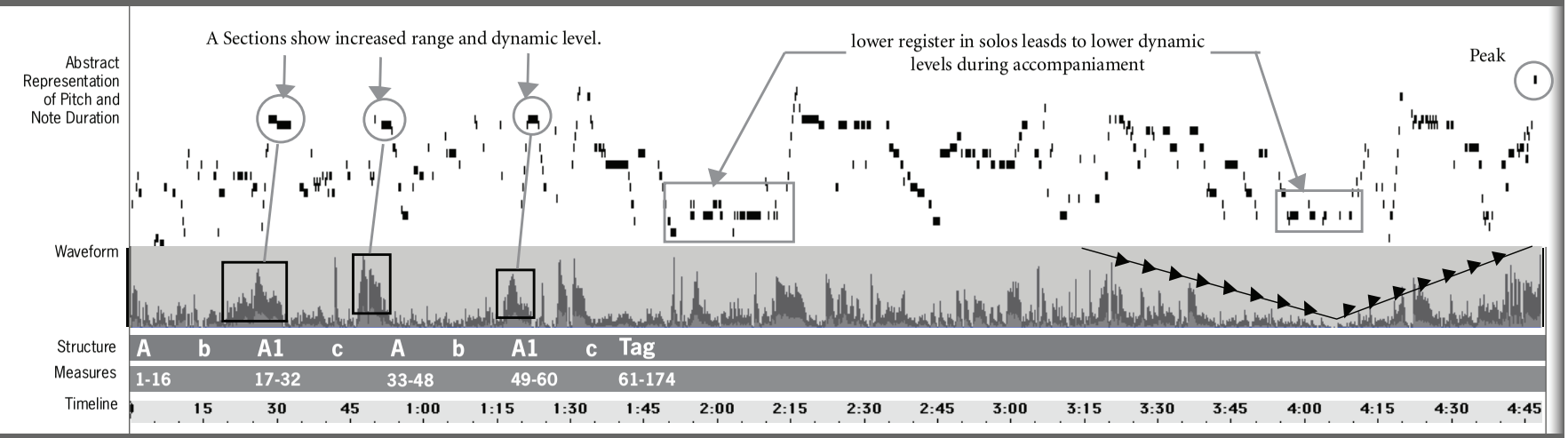
12 Barry Kernfeld, ed., "Stick," in *New Grove Dictionary*, 1162. "The standard beater used by the jazz drummer."; Barry Kernfeld, ed., "Brush," in *New Grove Dictionary*, 165. "A fan of wire or plastic strands with a hollow or stick handle, used as an alternative to the drumstick."

13 Although texture is not indicated in Figure 3.1, a transcription of Hancock's solo reveals his use of block chords during this climax.

14 Unlike Davis' initial statement of the melody, Davis' final chorus on the form relates to the original melody only in abstract ways.

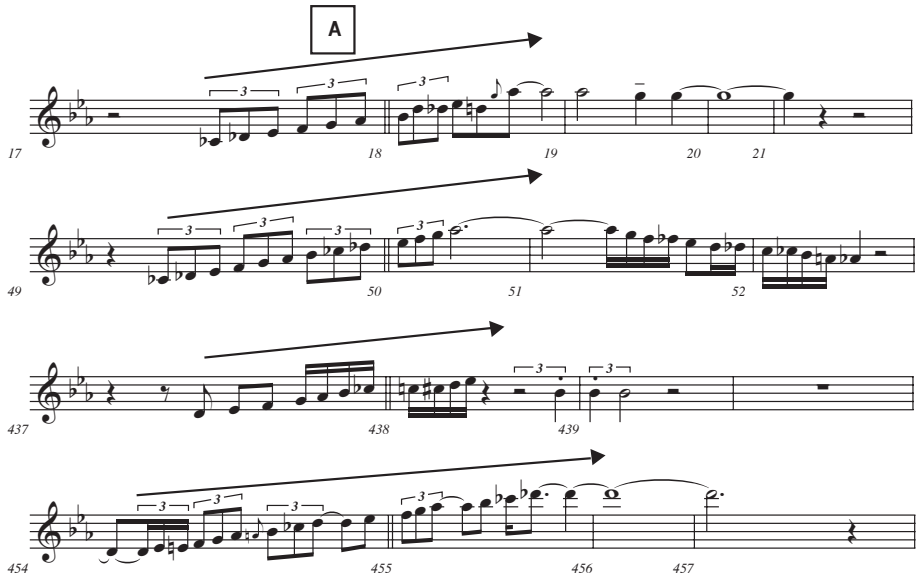
15 James Webster, "Sonata Form," in Grove Music Online. Oxford Music Online. 26 Mar. 2009. In section ii ("The Development") of Part 3 ("The Classical Period) of his essay, Webster states that the end of the development section "prepares the structural climax" that marks the beginning of the recapitulation.

Figure 3.2: Davis In Head Plus Solo



Initially evident is Davis' tendency to approach the A sections of the form with dramatic increases in register and dynamic level. (fig. 3.3)

Figure 3.3

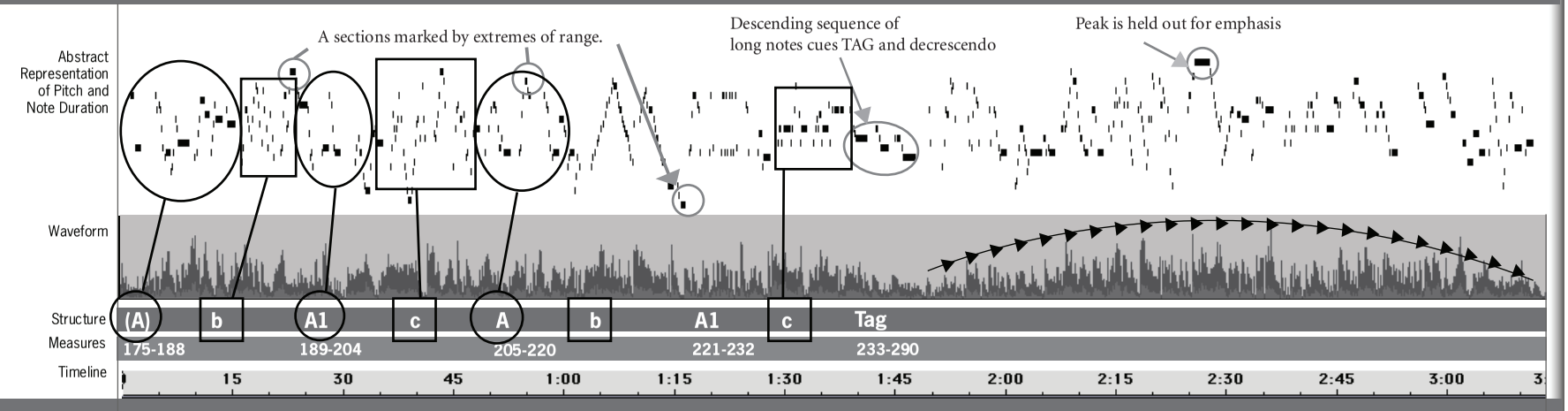


These gestures serve important functions on the local and long-range levels. Locally, they act as rhetorical gestures that effectively delineate the primary sections of the form (A sections).[16] In a long-range sense, Davis "teases" the listener with the suggestion of a climax, a peak that remains unfulfilled until the end of his solo.

Second, Davis' strategic forays into the lower part of his register, suggest the existence of a long-range plan to build his solo. In tandem with less rhythmic activity and a sparser texture, these forays function as cues to the rhythm section whose accompaniment subsequently mirrors Davis' trajectory. This proves to be an effective strategy for cueing the start of Davis' tag section, a strategy also adopted in Coleman's and Hancock's solos.

16 Paul Rinzler, "Preliminary Thoughts on Analyzing Interaction Among Jazz Performers," *Annual Review of Jazz Studies 4* (1988), 156-157. Rinzler describes "accenting the ends of formal units" as one of the five primary types of interactions in jazz.

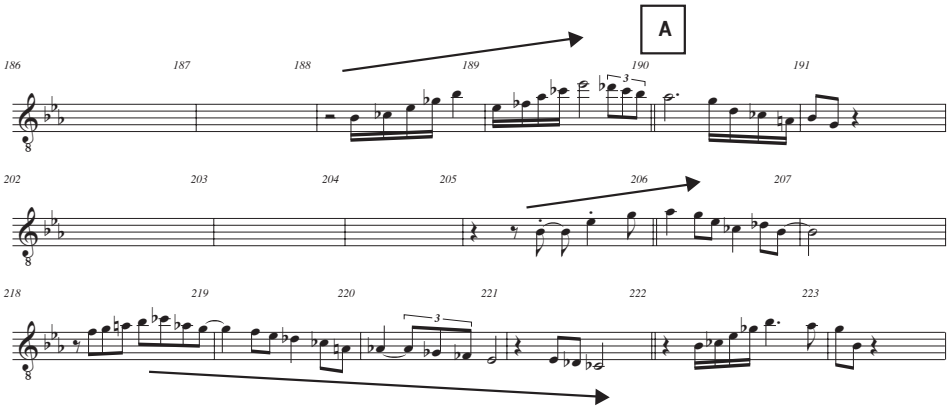
Figure 3.4: Coleman Solo



Coleman's Solo

Taking a close look at Coleman's solo, similarities in the aesthetic viewpoints of the performers start to emerge. (fig. 3.4) The first comparison to be made is in regards to Coleman's approaches to the A sections. (fig. 3.5)

Figure 3.5



As with Davis, Coleman delineates the important structural points of the form by going to extreme points of his available register. The last of the above examples demonstrates a contrast with Davis. Here, Coleman delineates the form by going to the lowest point of his register, a strategy that proves to be equally effective.

Coleman also manages to delineate the form by using less rhythmic activity during the A sections and more rhythmic activity during the B and C sections. (fig. 3.6) Going back to Chapter Two, it is evident that the increase in activity in the B and C sections is largely the result of the song's natural framework. A discussion of Hancock's solo in the next section reveals a similar delineation of the form.

Like Davis, Coleman transitions to the tag section of his solo by playing fewer notes, longer rhythms, a lower dynamic level and by going to a lower part of his range. This transition begins at the final C section of Coleman's solo (1:30). Here, instead of playing in a rhythmically dense fashion, Coleman starts to play longer note values in a style more reminiscent of the A sections. (fig. 3.7)

Figure 3.6

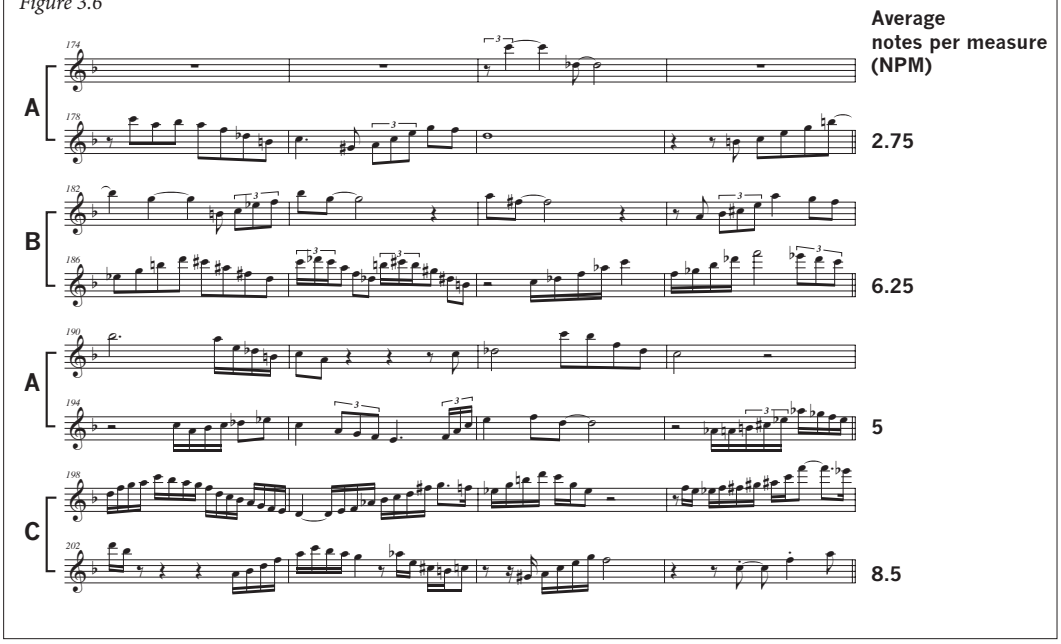
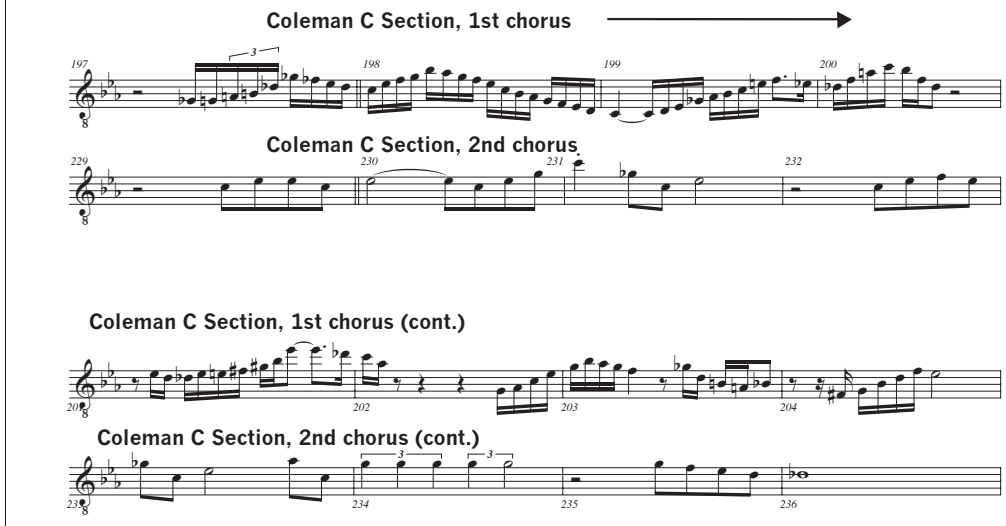


Figure 3.7



The use of a particularly lyrical sequence provides the final impetus that transitions Coleman into the tag section (1:45).

Coleman's climax comes near the end of his solo and coincides with the highest register of his performance (2:25). As with the other solos, the buildup to this peak starts at the beginning of the tag section. The waveform in Figure 3.3 demonstrates that this is the lowest dynamic point of his solo (1:50). In order to lead the ensemble from this low dynamic point to a climax, Coleman gradually increases the harmonic and rhythmic intensity of his playing. This is achieved via the introduction of a unique chord substitution pattern and through a barrage of sixteenth notes.[17] When Coleman finally reaches his peak note, he holds it out for 5 beats. This is in stark contrast to the rhythmic density of the previous measures, a contrast that helps to identify this moment as the climax of the solo.

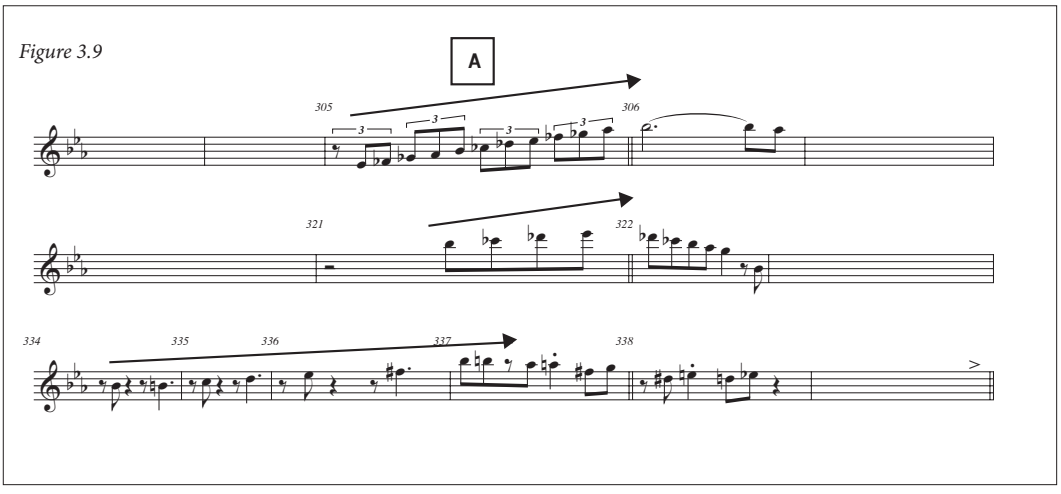
The waveform in Figure 3.4 shows the rhythm section following Coleman's trajectories with masterful sensitivity in regards to dynamics (1:50-3:15). Not only are they able to build the intensity of their accompaniment in concert with Coleman, but they also facilitate a gradual decrease in intensity after his climax. Decreases in intensity are an important aspect of transitioning to the next soloist, and a similar decrease at the end of Hancock's solo will be examined later.

Hancock's Solo

Figure 3.8 demonstrates that Hancock's solo exhibits many of the same characteristics found in Davis and Coleman's performances. (fig. 3.8)

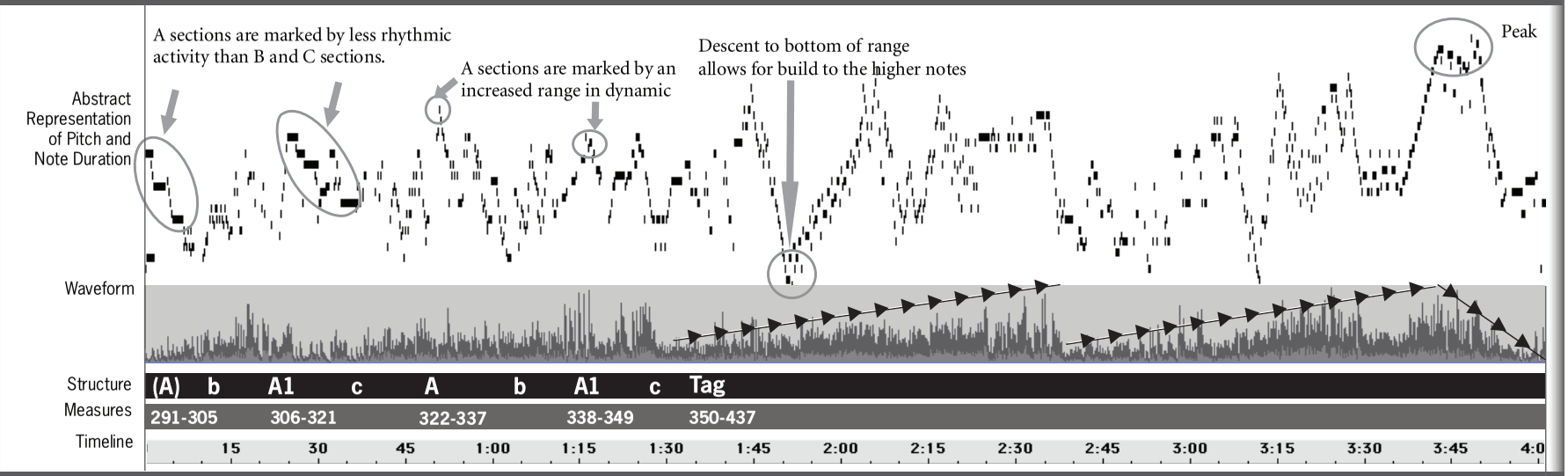
Once again, the A sections are delineated through motion to a higher register and through increases in dynamic intensity. (fig. 3.9)

Figure 3.9



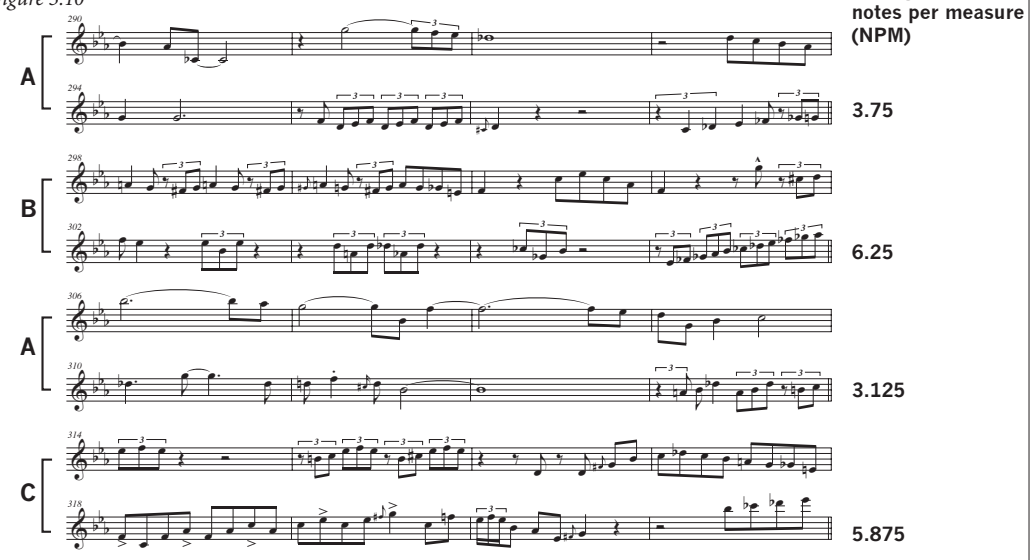
17 A more specific discussion of Coleman's chord substitutions is reserved for Chapter 4.

Figure 3.8: Hancock Solo



As with Coleman, these delineations are fortified by an increase in rhythmic activity during the B and C sections. (fig. 3.10)

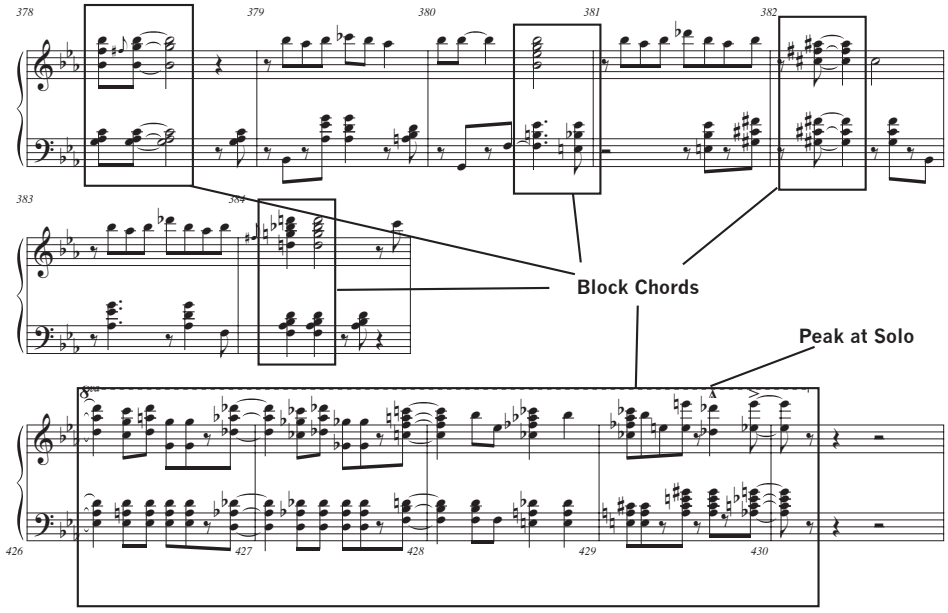
Figure 3.10



Hancock also seems to delineate the larger structure of his solo by engaging in increased levels of rhythmic intensity during the tag section (1:40-4:00). This stands in contrast to Hancock's approach to the regular 32-bar form where he favors longer rhythms and a more lyrical style (0:00-1:30).

Figure 3.8 illustrates that Hancock's tag section features two climaxes instead of one. Each climax is preceded by a deliberate movement to a lower register, thereby cueing the rhythm section and providing maximum space for building. In both cases, the climaxes are reinforced with longer note values and thicker textures. (fig. 3.11)

Figure 3.11



The second climax is more substantial than the first. It is here that we find the highest range of Hancock's solo (indeed the highest range of the entire performance), and it comes right before the transition to the last chorus on the normal form of the song. As with Coleman, Hancock quickly descends from this climax allowing a smooth dynamic transition to Davis' final statement.

Partitioning Solos Through Use of Contrasting Styles

Jazz musicians make use of a wide variety of well-established solo and accompaniment styles. These styles can be interchanged over the course of a solo or larger performance to create contrast and to delineate formal areas. A shared familiarity with each style's characteristic qualities allows for cohesive improvised interactions. Robert Hodson touches on this point in his analysis of an interaction between saxophonist Cannonball Adderley and pianist Wynton Kelly:

> Kelly's strong, bluesy voicing of this chord seems to have a galvanizing effect on the performance. It's almost as if Adderley hears this chord, draws upon his knowledge of jazz

> styles he shares with Wynton Kelly, realizes that this harmonic configuration signifies the blues style, and responds to Kelly's assertion by continuing his improvisation in a blues idiom. This type of interaction might be compared to a conversation: Kelly suggests a "topic" (the blues style), Adderley "responds" by elaborating on the topic.[18]

Interestingly, Hodson uses the term "topic" in place of "style," a term derived from Leonard Ratner's landmark text, *Classic Music: Expression, Form and Style*.[19] In his second chapter, Ratner uses the term "topic" to describe the prevalent "types" and "styles" of 18th Century classical music, defining "type" as a "fully worked-out piece" and "style" as a "figure or progression within a piece." He is also quick to point out that the "distinction between types and styles is flexible." Although "minuets and marches represent complete types of composition, they also furnish styles for other pieces." As Hodson implies, a parallel to this concept is easily found in jazz. The term "blues," for instance, may be used to describe a "type" of composition, i.e. the standard twelve-bar blues progression. The term "blues" may also be used to describe the "blues style," the use of which may color certain sections of compositions or improvisations that are unrelated to the twelve-bar blues form.

The discussion of "style" in Chapter Three focuses on three of the primary solo styles used by Davis and his cohorts: the "blues style," the "lyrical style" and the "bebop style." As well, I reveal the existence of other styles that are utilized in specific instances, including the "polymetric style" and what I call the "swinging style." As previously discussed, a mutual sensitivity to and understanding of these styles leads to a more efficient interactive environment. Upon hearing a shift in style, the performers can instantly draw upon a large vocabulary of complimentary solo and accompaniment figures, leading to a more cohesive performance. Similarly, these styles tend to suggest specific directions as to changes in dynamic intensity, instrumentation and texture.

Davis' Solo

During the tag section of his solo, Davis alternates between improvising in a more "lyrical style"[20] with playing in a more syncopated/articulated style that is rich in "blues"[21] vocabulary. (fig. 3.12)

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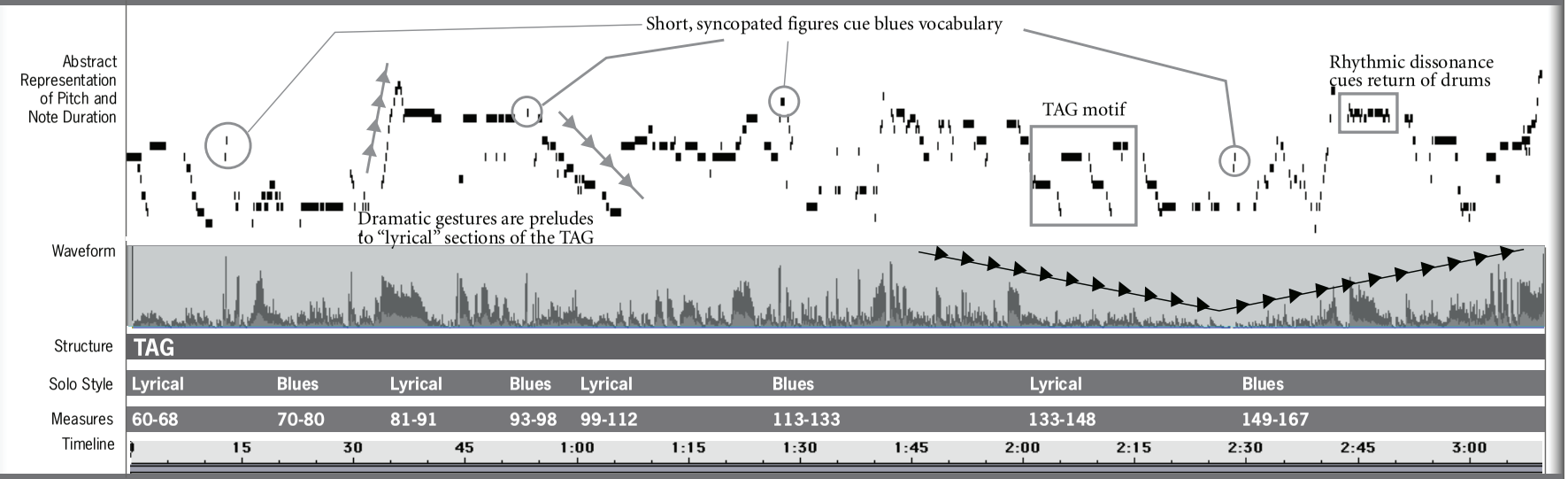
18 Hodson, *Interaction*, 8.

19 Leonard Ratner, *Classic Music: Expression, Form and Style* (New York: Schirmer Books, 1980), 9.

20 Ibid, 19. Ratner defines the "singing style" as "music in a lyric vein, with a moderate tempo and a melodic line featuring relatively slow note values and a rather narrow range." This definition easily applies to Davis' use of the "lyrical style."

21 A defining aspect of the "blues style" is the use of "blue notes," the lowered seventh, fifth and third scale degrees of the tonic key. For more information, see J. Bradford Robinson "Blue Note," in *New Grove Dictionary*, 120.

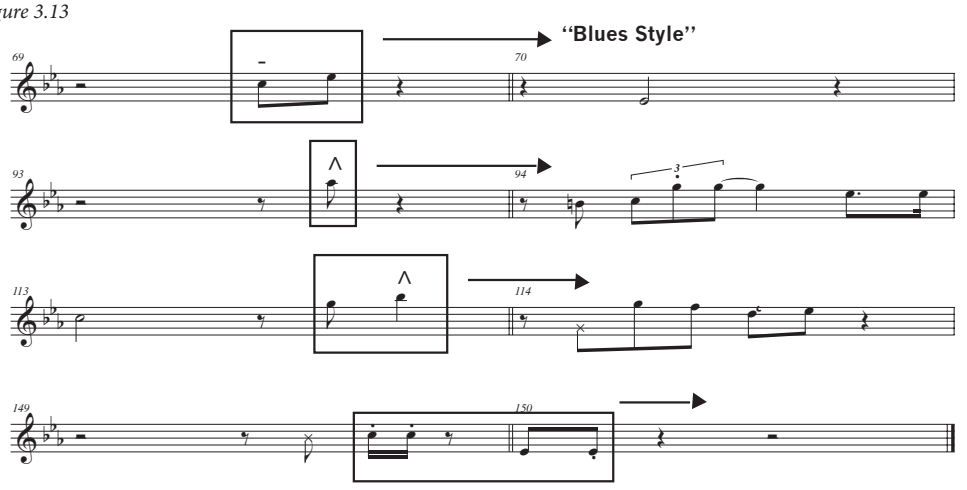
Figure 3.12: Davis' Tag Section



These alternations in style provide clear contrasts within a repeating 4-bar progression that by itself lacks the musical diversity of a larger form.

As well, Davis facilitates complimentary accompaniment by the rhythm section by cueing his transitions between these styles in an unambiguous way.[22] The most obvious of these cues take place when Davis is playing in the "lyrical style" and seeks to transition to the "blues style." He accomplishes this by playing short, syncopated figures as pickups to the repeated 4-bar phrase.[23] (fig. 3.13)

Figure 3.13



In each case, the eighth notes are "swung" in an exaggerated manner, placing them in relief with the lyrical, unarticulated quality of the preceding measures.[24]

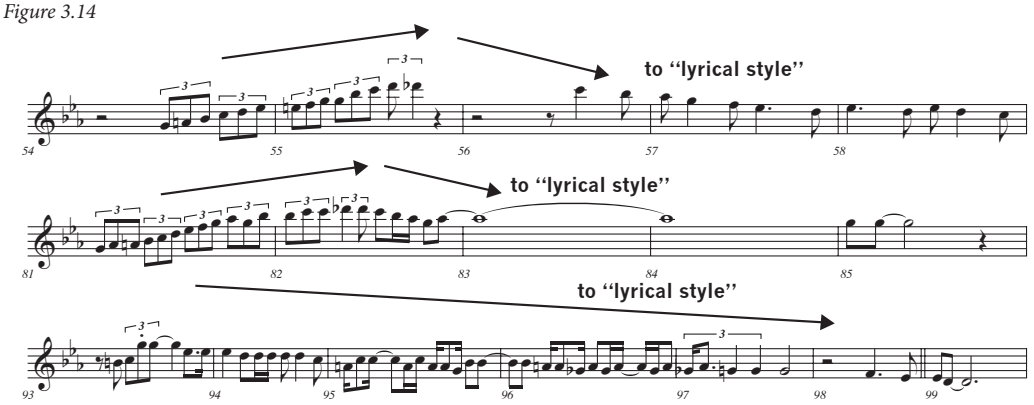
Davis' techniques for transitioning from the "blues style" to the "lyrical style" are slightly harder to quantify. However, some tendencies become apparent upon closer examination. In some cases, an episode in the "lyrical style" is immediately preceded by a dramatic upward or downward gesture. (fig. 3.14)

22 A more detailed discussion of how solo styles affect accompaniment styles is found in Chapter 4.

23 Luca Bragalini. "My Funny Valentine: The Disintegration of the Standard" Italy: Musica Jazz; Volume 53, no. 8/9, August/September, 1997. Bragalini refers to these cues as "sound signals."

24 Kernfeld, "Beat," in *New Grove Dictionary*, 86. Part 3 of Kernfeld's article presents four possible methods for notating "swing eighth-notes." The third of these methods divides the beat into eighth note triplets with the first "swing eighth-note" consisting of a quarter note triplet and the second consisting of an eighth note triplet. For the purposes of this study, this conception of "swing" is used.

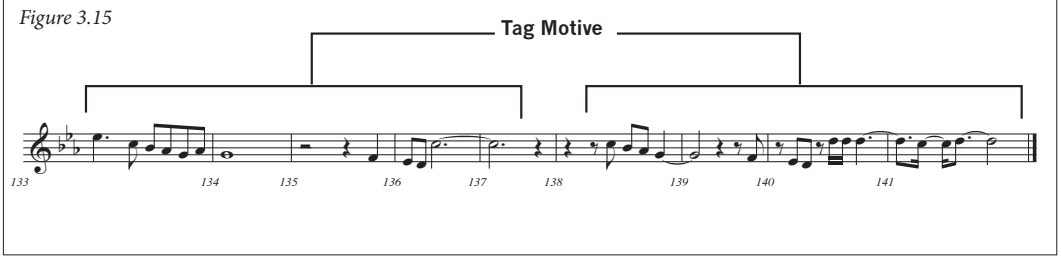
Figure 3.14



In the case of the upward gestures, Davis is creating room for a registral descent that helps to reinforce the stylistic transition. Downward gestures accomplish the same thing, but without the dramatic effect that accompanies the sound of the trumpet in its highest range.

Sometimes, Davis transitions to the "lyrical style" through the use of the "tag motive," a lyrical theme discussed in Chapter Two. (fig. 3.15)

Figure 3.15



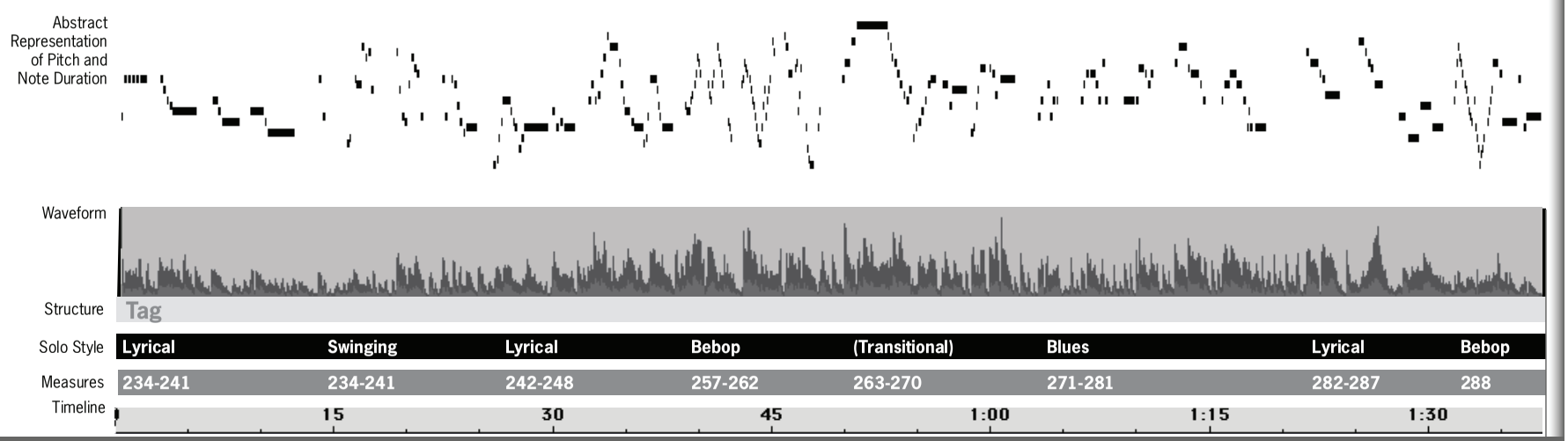
This motive functions as an effective transitional cue despite lacking an obvious rhetorical or signifying device. Its instantly recognizable theme is all the rhythm section requires for interpreting Davis' intentions.

Coleman's Solo

Although Coleman's use of contrasting styles during the tag is not always as explicit as Davis', it is just as evident. Moreover, Coleman makes use of the "bebop style," an additional stylistic color not represented in Davis' solo.[25] (fig. 3.16)

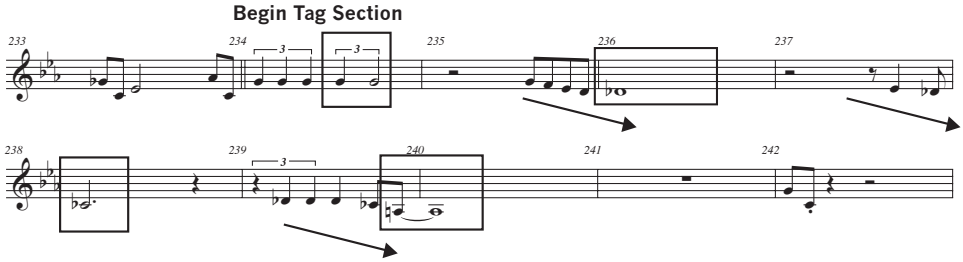
25 For a detailed description of the "bebop style," see Thomas Owens, "Bop," in *New Grove Dictionary*, 137-38.

Figure 3.16


Abstract Representation of Pitch and Note Duration
Waveform
Structure
Tag
Solo Style
Lyrical
Swinging
Lyrical
Bebop
(Transitional)
Blues
Lyrical
Bebop
Measures
234-241
234-241
242-248
257-262
263-270
271-281
282-287
288
Timeline
15
30
45
1:00
1:15
1:30

As with Davis, Coleman's tag section begins in the "lyrical style." (fig. 3.17)

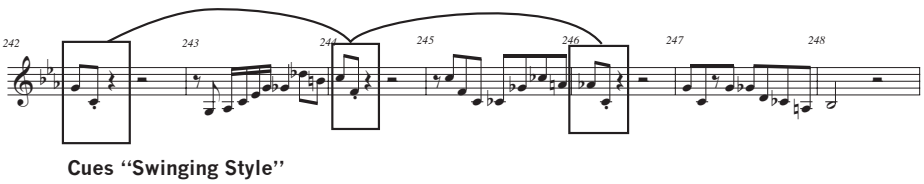
Figure 3.17



Coleman's use of chromaticism is in contrast to Davis' "lyrical style" which is mostly diatonic in character. However, the use of long notes and a downward trajectory effectively guides the rhythm section to a lower dynamic.

Coleman effectively cues the rhythm section out of the "lyrical style" at m. 242 in a manner reminiscent of Davis. (fig. 3.18)

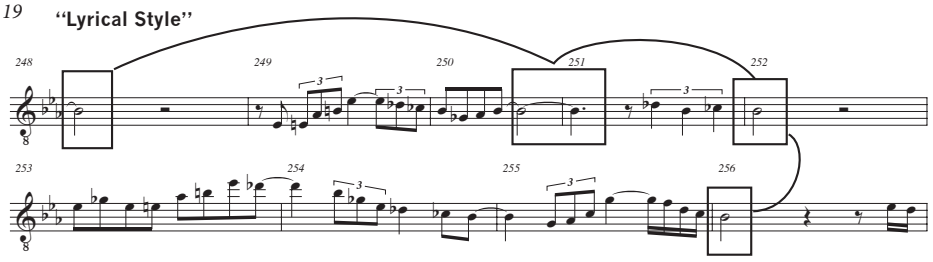
Figure 3.18



Two simple eighth notes played with an exaggerated swing feel on the downbeat of a new 4-bar phrase instantly indicates Coleman's shift in style. He emphasizes this effect by repeating the figure every two measures, providing additional motivic coherence to the solo. The music in these measures contains rhythmic elements of the "blues style," but is devoid of any "blues" vocabulary. Therefore, the style is described as "swinging" in reference to the exaggerated swing feel that characterizes the eighth notes.

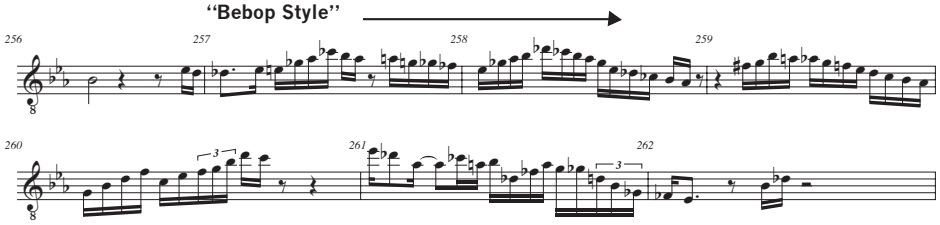
In measures 248-56, Coleman reverts to the "lyrical style" by once again emphasizing longer notes. (fig. 3.19)

Figure 3.19



The lyrical qualities of these measures provide an effective contrast for the barrage of notes that follows. (fig. 3.20)

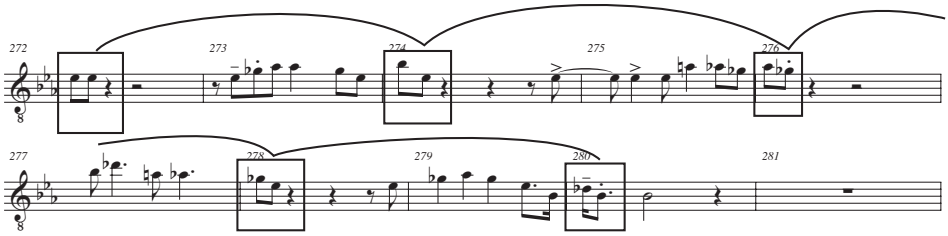
Figure 3.20



Here, Coleman draws upon his prodigious knowledge of bebop vocabulary to create another stylistic contrast. The rhythmic density of these phrases stands out in relationship to the sparsity of the previous phrase as well as the long note (measures 264-65) that occurs immediately afterwards.

After his climax and several other measures that are transitional in nature, Coleman begins playing in the "blues style." (fig. 3.21)

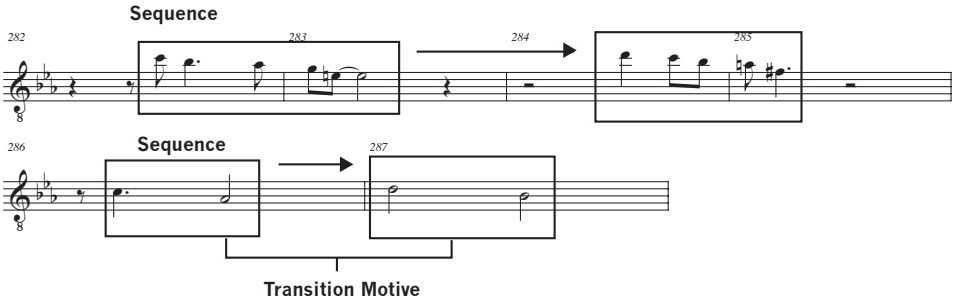
Figure 3.21



Unlike measures 242-248, which feature a similar use of "swinging" eighth notes, measures 271-280 are largely characterized by "blues" vocabulary. Coleman's use of the "blues style" here is particularly effective in drawing Hancock into a "call and response" dialogue, an aspect of the solo discussed in more detail in Chapter 4.[26]

The last few bars of Coleman's solo are in the "lyrical style," and are also transitional in nature. (fig. 3.22)

Figure 3.22



As with his foray into the tag section (measures 233-240), Coleman favors sequences at important points of transition. This can perhaps be traced to the ubiquitous "transition motive" which is also sequential in construction.

Hancock's Solo

Unlike Davis and Coleman, Hancock's solo on the tag section revolves largely around the use of one style. (fig. 3.23) As Figure 3.23 illustrates, Hancock's performance relies primarily on what I refer to as the "polymetric style."[27] He uses this style to superimpose triple meter over the native duple meter of the accompaniment, often using forms of rhythmic displacement to heighten the effect. This "polymetric style" is at the core of Hancock's approach to the tag. Although the "bebop," "blues," and "lyrical" styles are integrated into this approach, they mostly serve in subsidiary or transitional roles. Figure 24 illustrates this idea. (fig. 3.24)

26 Kernfeld, "Call and Response," in *New Grove Dictionary*, 181. "The performance of musical phrases or longer passages in alternation by different voices or distinct groups, used in opposition in such a way as to suggest that they answer one another."

27 Keith Waters, "Blurring the Barline: Metric Displacement in the Piano Solos of Herbie Hancock," *Annual Review of Jazz Studies 8*, (1996), 19-37.

Figure 3.23

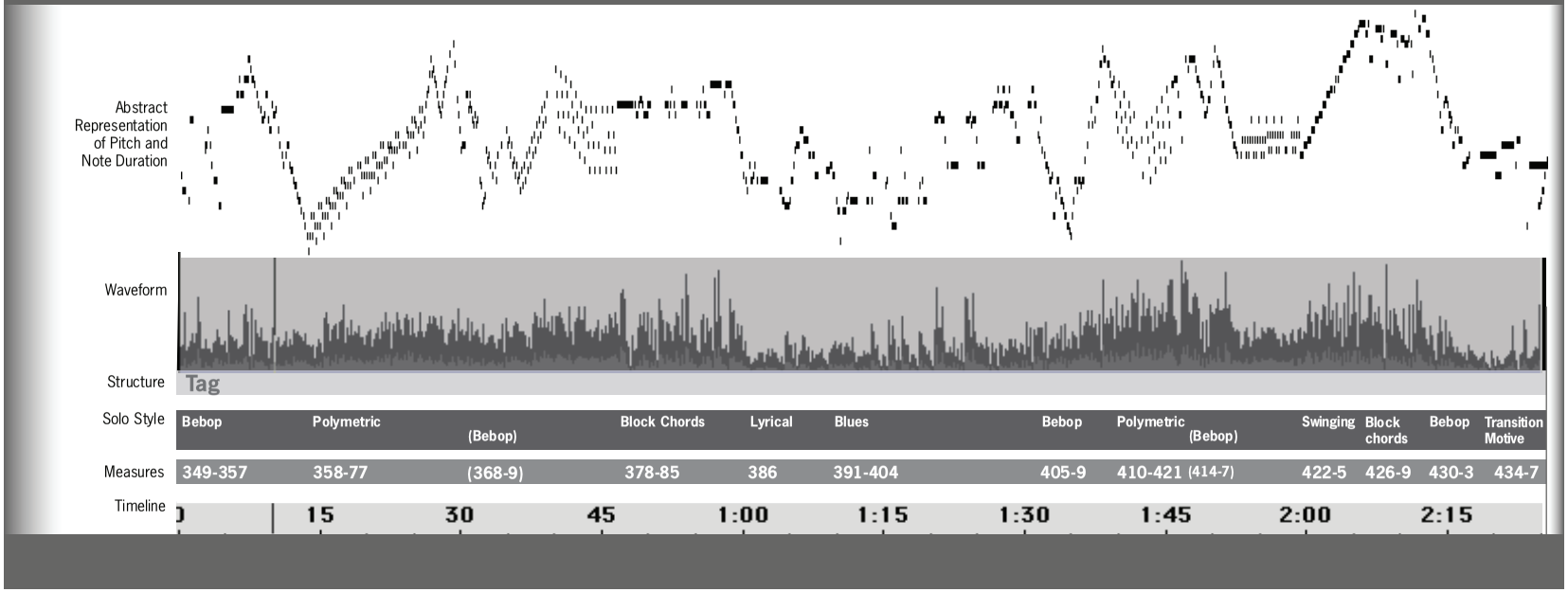
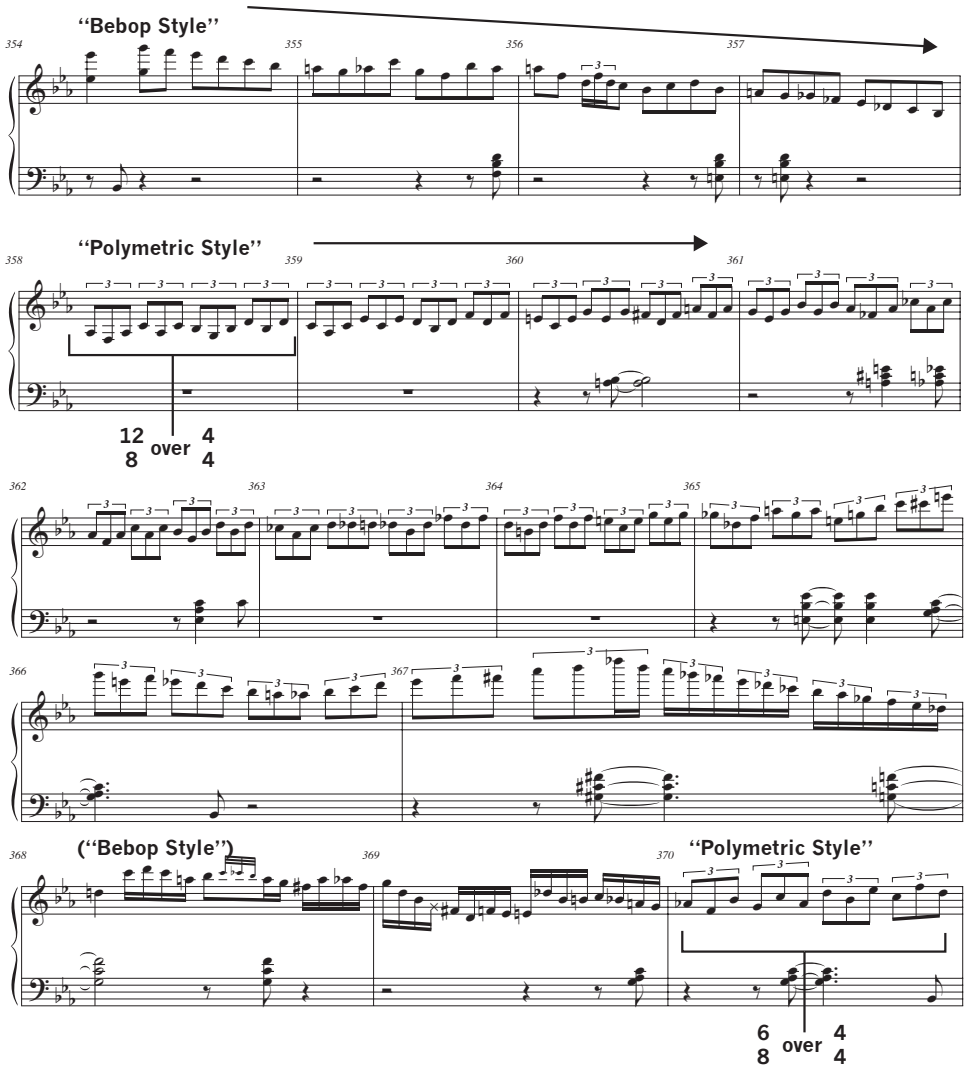

Abstract Representation of Pitch and Note Duration
Waveform
Structure
Tag
Solo Style
Bebop
Polymetric
(Bebop)
Block Chords
Lyrical
Blues
Bebop
Polymetric
(Bebop)
Swinging
Block chords
Bebop
Transition Motive
Measures
349-357
358-77
(368-9)
378-85
386
391-404
405-9
410-421
(414-7)
422-5
426-9
430-3
434-7
Timeline
15
30
45
1:00
1:15
1:30
1:45
2:00
2:15

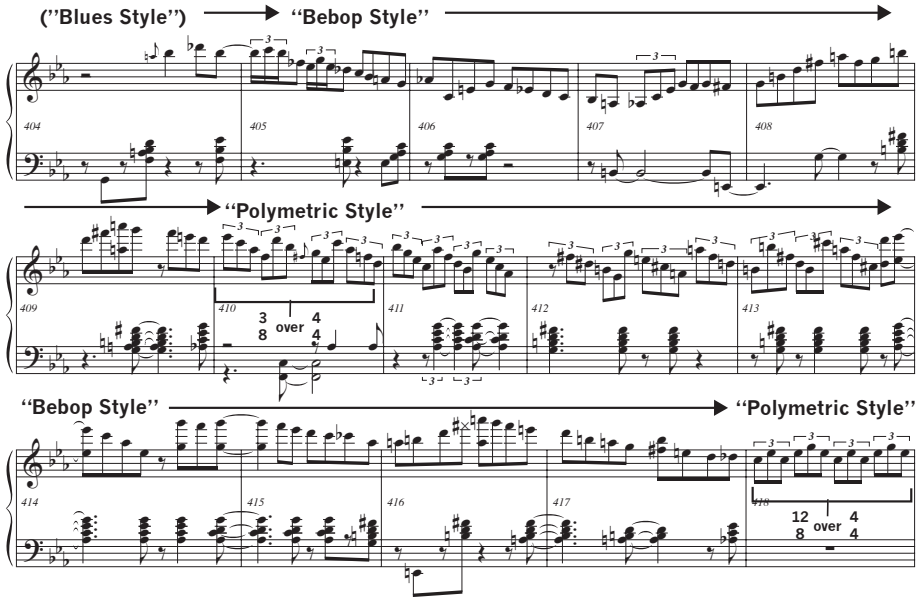
Figure 3.24



In measures 354-57, Hancock uses the "bebop style" as a device for moving into a lower register (in this case, the lowest register of his solo). From here, he develops a gradually ascending eighth-note triplet pattern that superimposes a 12/8 meter over 4/4. As this pattern reaches into a higher register, Hancock senses that he is running out of space and needs to change course. He accomplishes this by inserting bebop vocabulary into measures 368-69, effectively "resetting" the music for another polymetric episode at measure 370.

Similar activity is found in measures 404-18. (fig. 3.25)

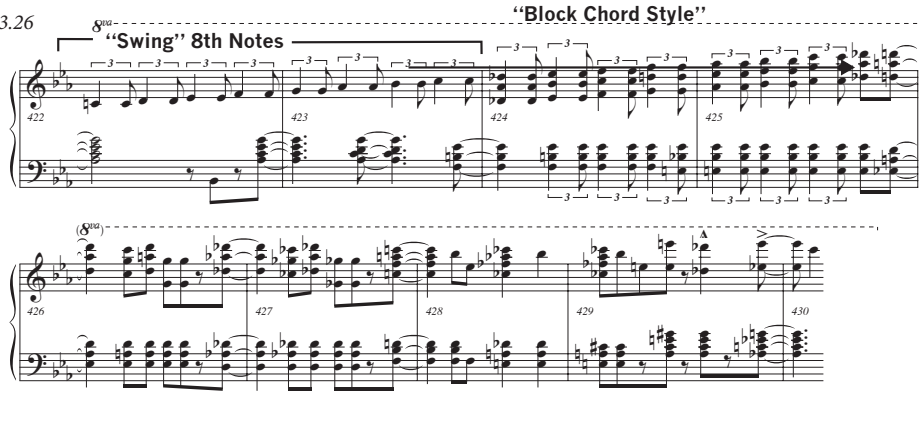
Figure 3.25



Following a lengthy episode in the "blues style" (measures 391-405), Hancock once again employs bebop vocabulary in his transition back to the "polymetric style" (measures 406-10). As with the previous example (ex. 17), he temporarily returns to the "bebop style" in measures 414-17 as a method for transitioning into a new polymetric pattern at m. 418.

During his final drive to a climax, Hancock plays with an exaggerated swing feeling. (fig. 3.26)

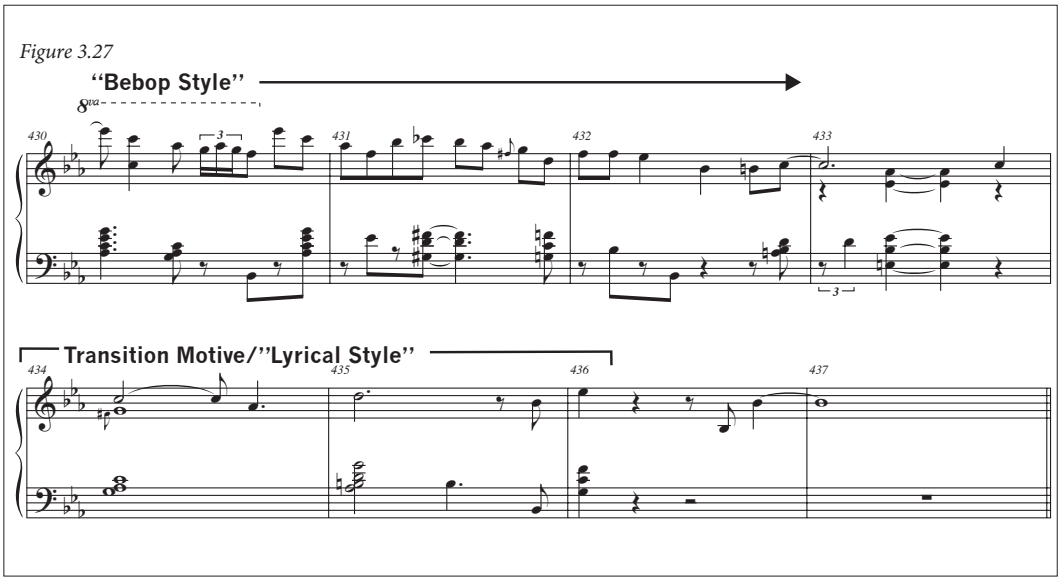
Figure 3.26



Although the notes in measures 422-25 would normally be notated as eighth notes, the author has used eighth-note triplets to underscore the intensity of the swing feeling. The eighth notes in the following measures are notated in a "normal" fashion, but they too exhibit a deep sense of swing that helps to reinforce the peak of Hancock's solo.

As a fitting end to his solo, Hancock again uses the "bebop style" as a way to move from the intensity of his climax to the "transition motive," which is more lyrical and subdued in character. (fig. 3.27)

Figure 3.27



This stylistic shift effectively reinforces Hancock's downward trajectory, and paves the way for Davis' entrance in measures 437-8.

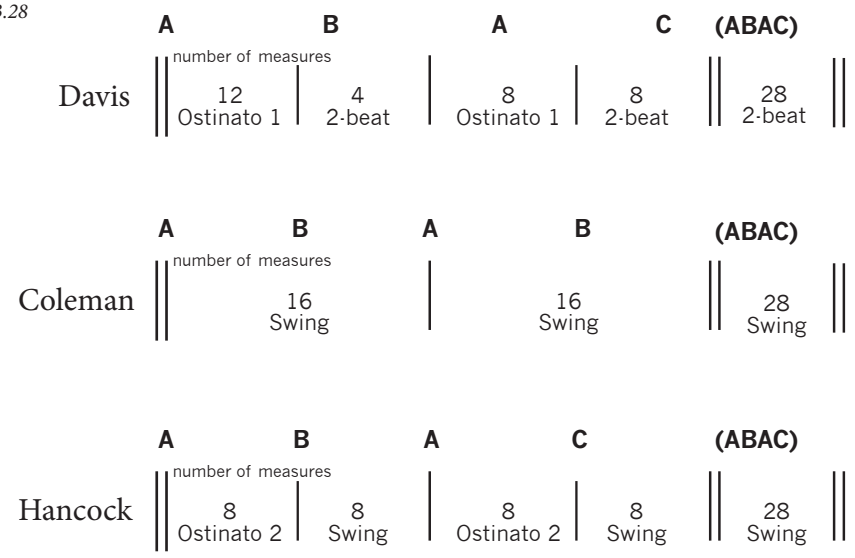
Rhythm Section Styles

As with the styles used by the soloists, specific styles of accompaniment may be used by the rhythm section to delineate aspects of the song's regular form. These styles may also be used during the tag section to create the impression of new formal units, thus helping to break the monotony of the repeating 4-bar progression.

Delineating Aspects of the Form

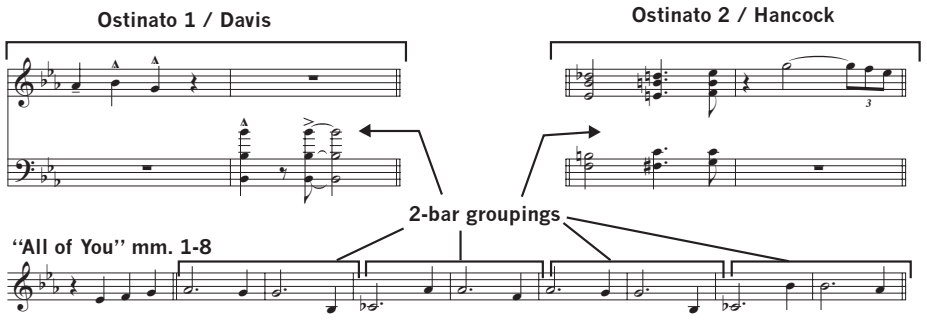
As Figure 3.28 illustrates, the rhythm section has a tendency to rely on ostinato figures during the A sections of the solos. (fig. 3.28)

Figure 3.28



One reason these ostinatos are so effective is their correlation with the motivic structure of the melody. (fig. 3.29)

Figure 3.29



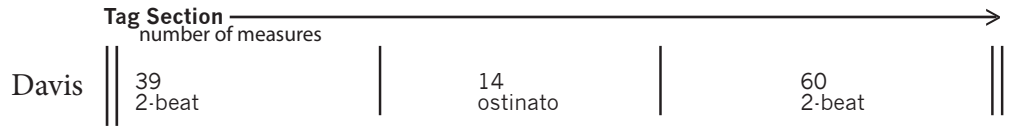
As with the melody, Ostinato 1 and 2 are built in 2-bar motivic groups. These groups give way to a faster phrase rhythm in the B and C sections which are subsequently characterized by a more active and consistent rhythmic accompaniment.

Referring to Figure 3.28, the rhythm section does not employ an ostinato figure during Coleman's solo. Apart from a repeating 4-bar rhythmic motive that occurs at the end of the B sections, Coleman's solo is swinging the entire time. This provides a welcome contrast from the constantly shifting styles during Davis' solo, and also makes the use of an ostinato at the beginning of Hancock's solo sound fresh.

Creating New Formal Units

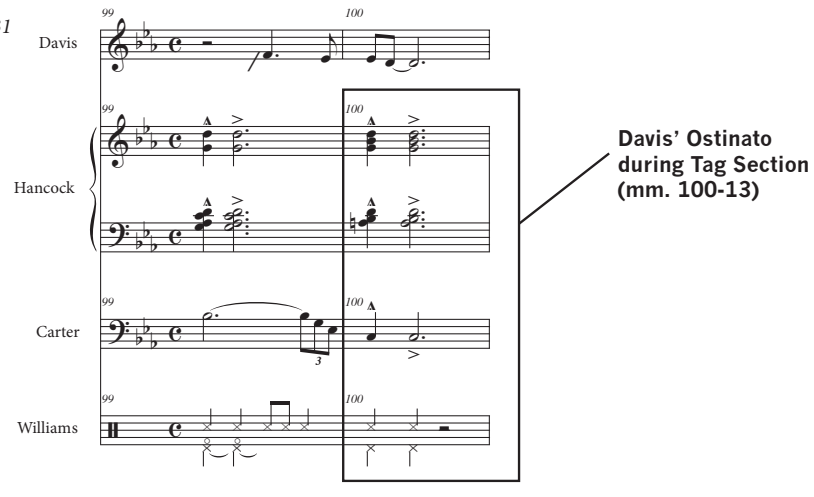
As Figures 3.1, 3.2, 3.4 and 3.8 demonstrate, the soloists spend as much or more time playing on the tag sections of their solos then on the regular form of the song. One way the rhythm section keeps the repeating 4-bar phrase from sounding too repetitive is through the insertion of contrasting rhythmic styles. Figure 3.30 represents the tag section of Davis' solo. (fig. 3.30)

Figure 3.30



This graphic shows that the majority of the rhythm section's accompaniment is characterized by a standard two-beat style. This style is interrupted in measures 100-13 by a repeating ostinato pattern. (fig. 3.31)

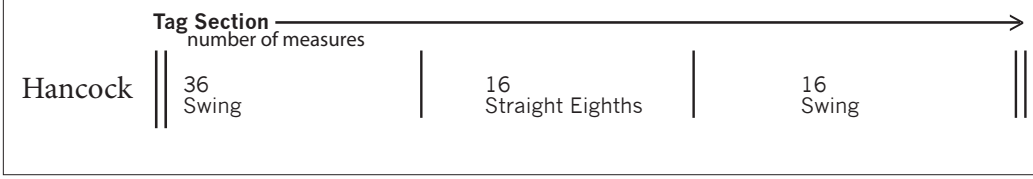
Figure 3.31



The introduction of this pattern provides a break from the rigidity of the two-beat style, and the repeating rhythm of the ostinato gives Williams more freedom in his accompaniment.

Hancock's solo on the tag section also features a change in the rhythm section's accompaniment. (fig. 3.32)

Figure 3.32



The use of a straight eighth-note style during measures 386-402 of his solo provides an effective contrast to the swing eighth notes that characterize the remainder of the tag section.

Summary

Chapter Three reveals that the soloists in Davis' quintet share common goals and aesthetics, and devise similar methods for accomplishing these goals. Additionally, the rhythm section is sensitive to these aims, and crafts their accompaniment with them in mind. Chapter Four examines some of these same musical episodes in more detail, often utilizing full or partial transcriptions of the performance. This analysis provides a detailed description of the interactive methods employed by the Davis quintet, and shows how those methods are used to unite the soloists with the rhythm section in achieving their collective aesthetic goals.

Chapter Four

Ensemble Interactions

Chapter Four takes a close look at how a wide variety of complex ensemble interactions are negotiated in performance. First, we will focus on large segments of each solo, moving chronologically through to their respective climaxes. These excerpts, derived from the "tag" section of the solos, provide a unique environment for observing the interactive process. The analysis emphasizes each ensemble member's unique techniques for expressing elements of the "collective aesthetic," and demonstrates how an adherence to this aesthetic leads to effective and cohesive interactions. The study concludes with an examination of Tony Williams' techniques for spurring stylistic modulations within the rhythm section. These techniques are used to "suggest" a combination of rhythmic and stylistic ideas to the soloists as well as to facilitate cohesive accompaniment within the rhythm section.

Several terms appear in scholarship to describe the interactive process in jazz. Words like "conversation" and "communication" are frequently used as metaphors to compare musical interaction with spoken language.[1] The word "improvisation" may also be used generically to allude to the spontaneous interactions that occur in a typical jazz performance.[2] However, a survey of numerous studies on the subject reveals that the term "ensemble interaction" has become ubiquitous.[3]

Analyses of "ensemble interactions" are typically approached from one of two primary viewpoints. Authors like Paul Berliner and Ingrid Monson favor an ethnomusicological perspective relying primarily on exhaustive interviews of musicians to develop their theories.[4] Conversely, as in this study, more traditional forms of Western musical analysis may be used. This style relies instead on an examination and interpretation of actual musical events, without regard to cultural context.

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1 Berliner, *Thinking in Jazz*, 348; Monson, *Saying Something*, 73; Hodson, *Interaction*, 8. Coolman, *Synthesis*, 71. Berliner, Monson and Hodson each use the conversation metaphor. Coolman cites "the literature" in praising the Davis quintet's "extraordinary communicative . . . abilities."

2 Barry Kernfeld, "Improvisation," in *New Grove Dictionary,* 354-63. The New Grove Dictionary does not have a definition for "Interaction" or any of the other related terms. Kernfeld's definition of "Improvisation" describes some of the collective aspects of jazz improvisation.

3 As with this study, Coolman relies on the full term "ensemble interaction." Both Monson and Hodson use the word "interaction" in their titles, with Berliner favoring "interplay" which frequently occurs in the body of the text.

4 Monson, *Saying Something*, 1-10. Monson also discusses Berliner's perspective in detail in her introduction.

In general, most texts seem to concede that the multiplicity of types of ensemble interactions makes comprehensive categorization difficult or impossible. There are, however, exceptions. For instance, Paul Rinzler suggests five primary kinds of interactions: "call and response, fills, accenting the ends of formal units, common motive and responding to the "peaks" of the soloist."[5] Rinzler's list accurately summarizes many of the most common types of interactions in typical jazz performances. But as Robert Hodson indicates, this list is by no means comprehensive, and it cannot explain the nature of a wide variety of interactive episodes.[6] In contrast to Rinzler's model, the analysis in Chapter Four shows how ensemble interactions can be initiated from within any sphere of the musical tapestry including aspects of dynamics, register, rhythm, phrasing, melody, harmony and timbre.

The idea that we should categorize the types of "ensemble interactions" found in jazz is decidedly "Western," and perhaps runs contrary to the research aesthetic of ethnomusicologists like Monson. At the core of this debate is the notion that jazz scholarship has focused its attention on "musical characteristics highly valued in Western classical music" at the expense of a more detailed investigation into the "musical interaction within the rhythm section and between the rhythm section and the soloist."[7] Monson is correct to imply that there are some aspects of ensemble interaction that cannot be accurately evaluated via traditional forms of analysis. As well, a thorough search of any music library confirms her contention that "musical interaction" is a neglected field in jazz research. However, she misses the point by blaming this lack of research on a preoccupation with the Western music aesthetic. Although the tools of Western musical analysis have been trained primarily on "individual soloists," there is no reason why they might not also be applied to the collective aspects of jazz. Chapter Four shows that musicians' interactions are frequently informed by an in-depth understanding of and sensitivity to a variety of elements also valued in Western classical music. The utilization of "complex voice leading, thematic integration . . . large-scale planning"[8] and other techniques by the ensemble members leads to myriad interactive possibilities and enriches the overall musical fabric of the performance.

5 Paul Rinzler, "Preliminary Thoughts on Analyzing Interaction Among Jazz Performers," *Annual Review of Jazz Studies 4* (1988), 156-157.
6 Hodson, *Interaction*, 22.
7 Monson, *Saying Something,* 4.
8 Ibid., 4.

Soloists

During the performance, each soloist displays unique techniques for adhering to the "collective aesthetic" of the group. In the analysis presented here, these techniques are examined at close range, revealing a multitude of strategies for building solos in a coherent fashion.

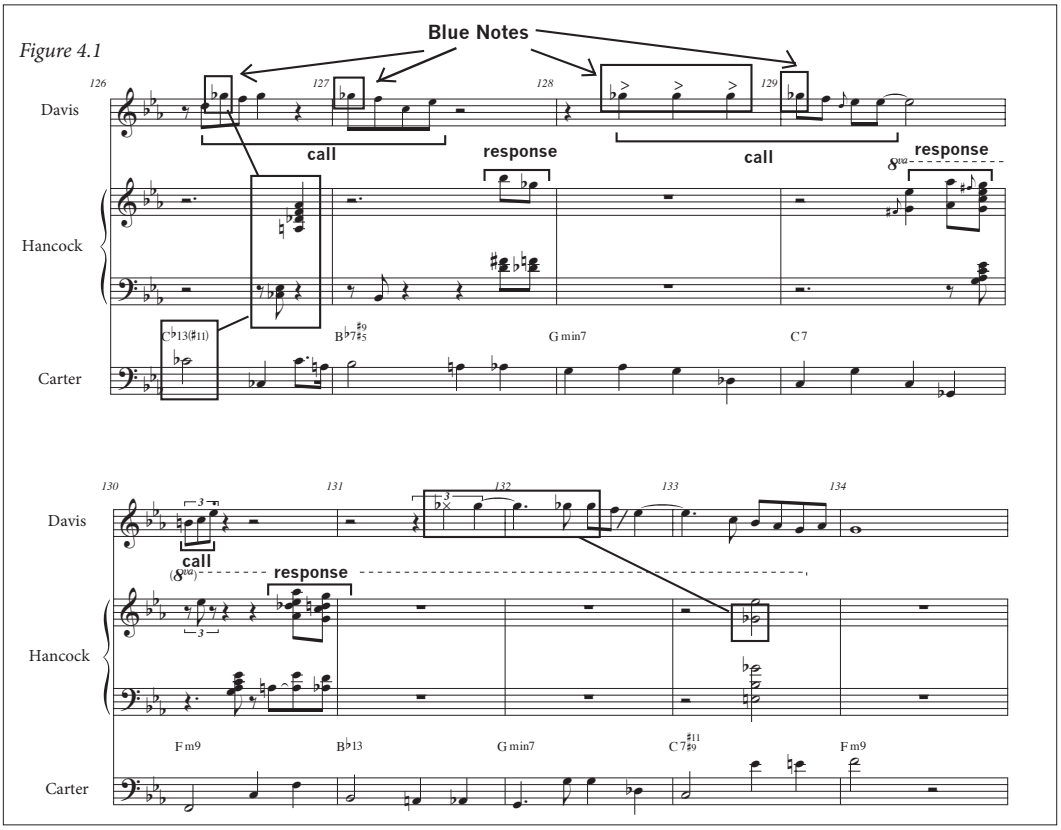
Davis

The following excerpts from Davis' solo are presented here because they are very characteristic of his approach to ensemble interaction. During measures 126-65, local interactions become part of a larger plan by which Davis is able to guide a reduction in overall intensity in preparation for his push to a final climax.

Measures 126-34

The first thing apparent in measures 126-34 is Davis' use of the "blues style." (fig. 4.1)

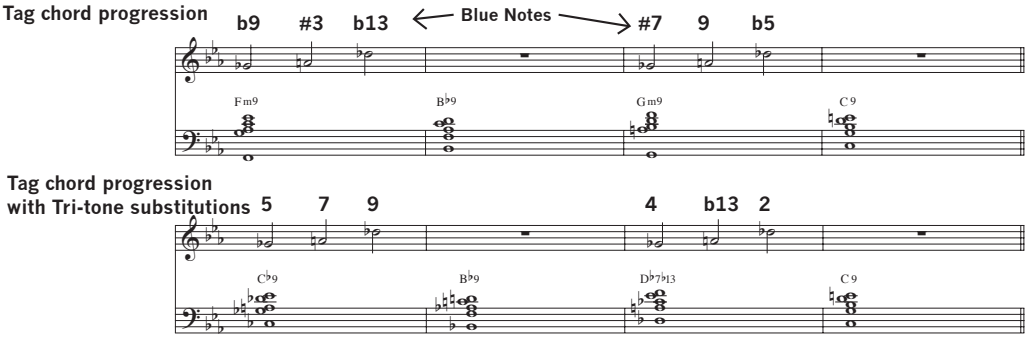
Figure 4.1



In this example, the "blues style" is most apparent from Davis' persistent use of g-flat, the flatted third scale degree of the tonic key (E-flat). What this example doesn't indicate is that Davis has been focusing on g-flat since m. 116. From this repeated use of g-flat, the rhythm section is able to safely anticipate its continued use during the following measures. This anticipation allows Hancock and Carter to prepare chord substitutions that better accommodate g-flat, a dissonant note over the normal progression. One of these chord progressions is illustrated in m. 126. Here, Carter begins the bar on a c-flat indicating Cb7, the tri-tone substitution of the normal chord, Fmin7. Hancock waits, but also plays a form of Cb7 at the end of the measure. With g-flat as the prominent note in Davis' line, this proves to be an effective choice. This is because g-flat is supported by Cb7 as the fifth of the chord, but not by Fmin7 where it forms a flatted ninth with the root. The border between harmonic and linear forces dissolves as Davis' line becomes part of a new chord progression, and Hancock's harmony is expressed horizontally.

Using tri-tone substitutions during sections of the tag that are in the "blues style" proves to be an effective strategy. Tri-tone dominant chords can serve many harmonic functions and are generally more supportive of the chromaticism that exists in blues vocabulary. (fig. 4.2)

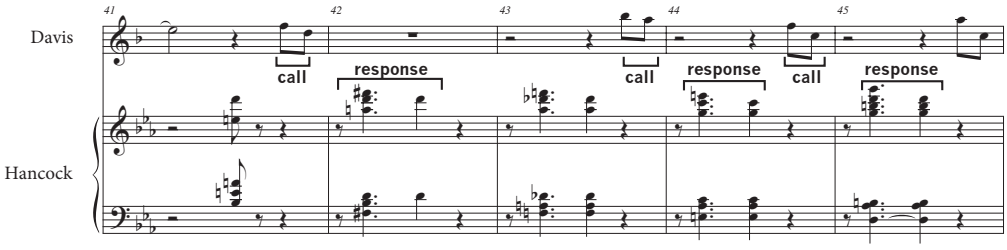
Figure 4.2



Another common type of interaction characteristic of the "blues style" is the "call and response." In measures 126-29, Davis plays a simple 2-bar motive that leaves space at the ends of

every other bar. The use of space during his first 2-bar motive allows Hancock an opportunity to play a short "response" in measure 127. When Davis begins playing a similar phrase in measure 128, it allows Hancock to prepare a similar response at the end of m. 129. This also happens much earlier in Davis' solo. (fig. 4.3)

Figure 4.3



In this case, Davis and Hancock are working with a shorter motive that demands Hancock's responses in every measure.

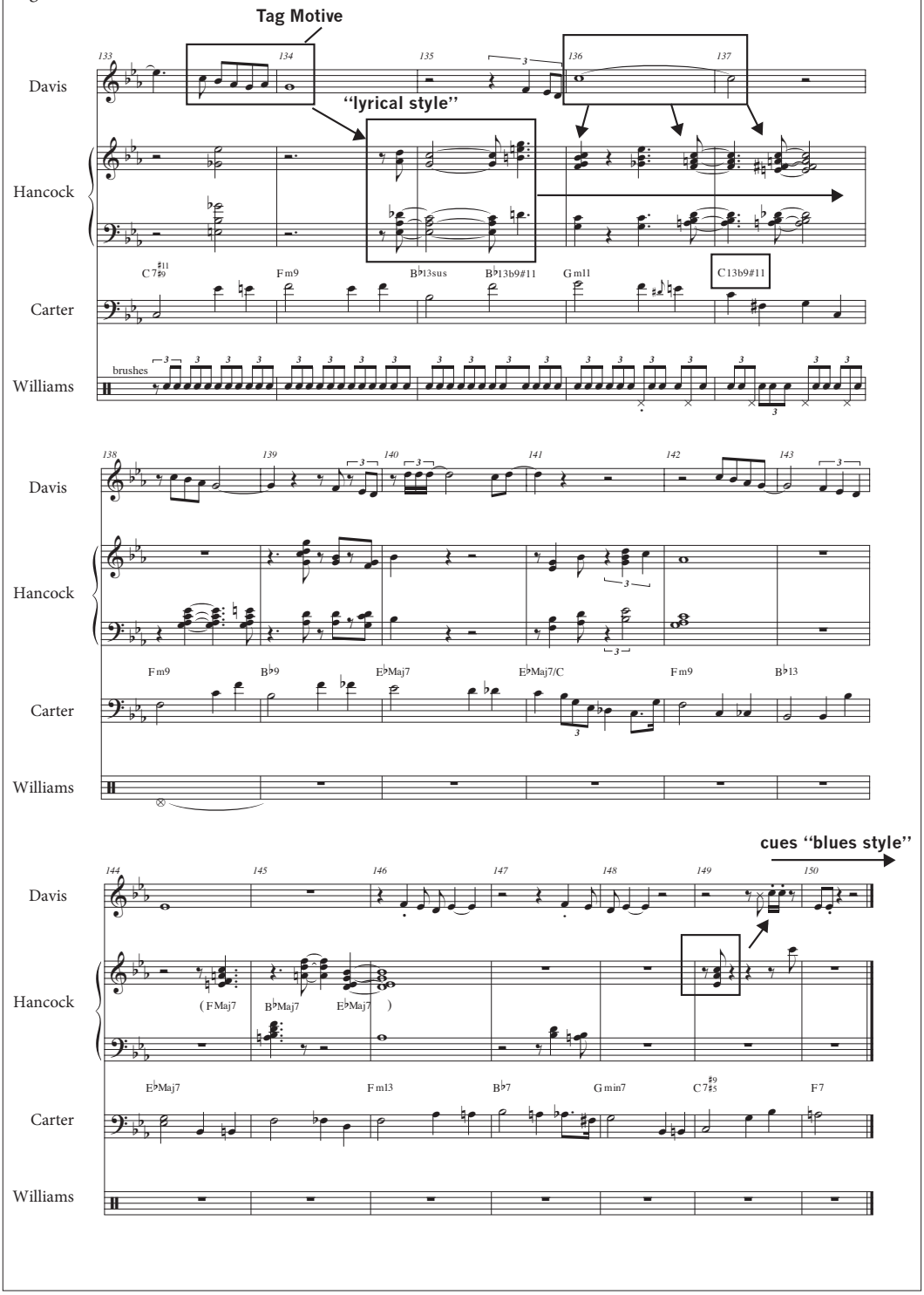
Measures 133-50

In measure 133, Davis shifts into the "lyrical style" without any warning. But despite this lack of warning, the ensemble members are able to adjust their accompaniment. This is because of Davis' use of the "tag motive," an instantly recognizable theme that indicates a shift to a lower dynamic and legato style. (fig. 4.4) When compared with measures 126-32, the change in accompaniment style is apparent. Hancock's texture thickens and features longer notes, matching the character of Davis' lyrical statement. As well, Williams drops out of the texture completely in measure 138, leaving only Hancock and Carter to accompany Davis.

During Davis' use of the "tag motive," Hancock explores a variety of complex harmonic colors. Because he is able to anticipate the primary pitch of the "tag motive" (c-natural), Hancock is free to utilize this pitch as the top note of his voicings, integrating complex chord alterations into his harmony.

Having firmly established the "lyrical style" in measures 134-47, Davis' solo reaches its lowest dynamic in measure 148. From here, Hancock seems to sense the need to start building again, and plays a short, syncopated figure on the end of beat 1 of measure 149. Hancock's figure works as an

Figure 4.4

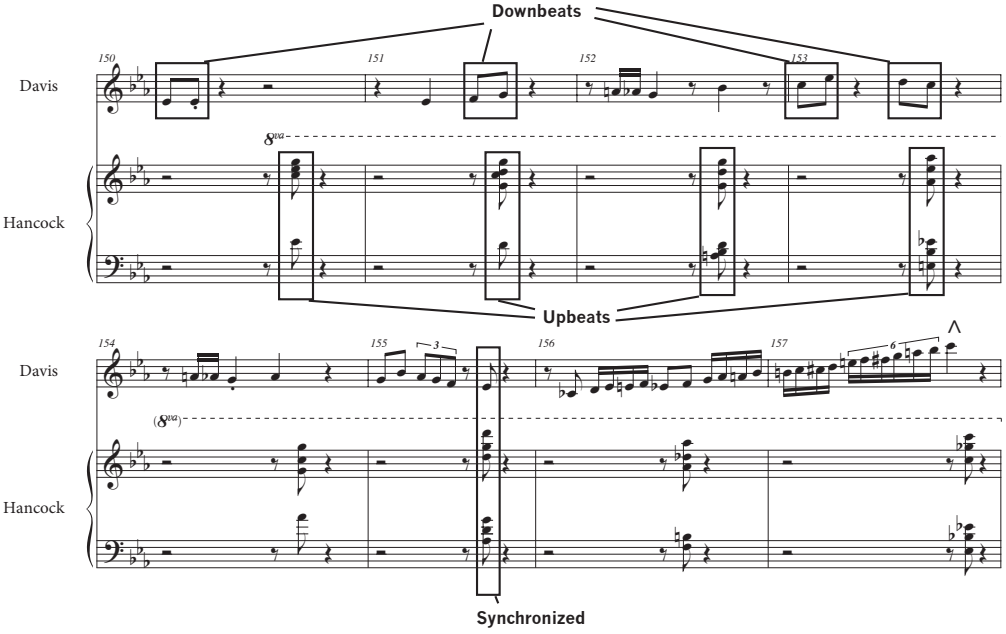

Tag Motive
"lyrical style"
Davis
Hancock
Carter
Williams
brushes
C7♯11♯9
Fm9
B♭13sus
B♭13b9#11
Gm11
C13b9#11
Fm9
B♭9
E♭Maj7
E♭Maj7/C
Fm9
B♭13
cues "blues style"
(FMaj7
B♭Maj7
E♭Maj7)
E♭Maj7
Fm13
B♭7
Gmin7
C7♯9♯5
F7

effective rhetorical device because its short and articulated quality stands in contrast to the legato style and thickened texture of the previous measures. It subsequently functions as a cue for Davis who immediately launches into the "blues style" in measure 150.

Measures 150-57

Starting at m. 150, the group begins a gradual and coordinated intensification of musical elements that are aimed at bringing Davis' solo to a final climax. An intensification of rhythmic interplay and complexity has a large role in building to the peak of Davis' solo. Take for instance the rhythmic interplay between Davis and Hancock in measures 150-57. (fig. 4.5)

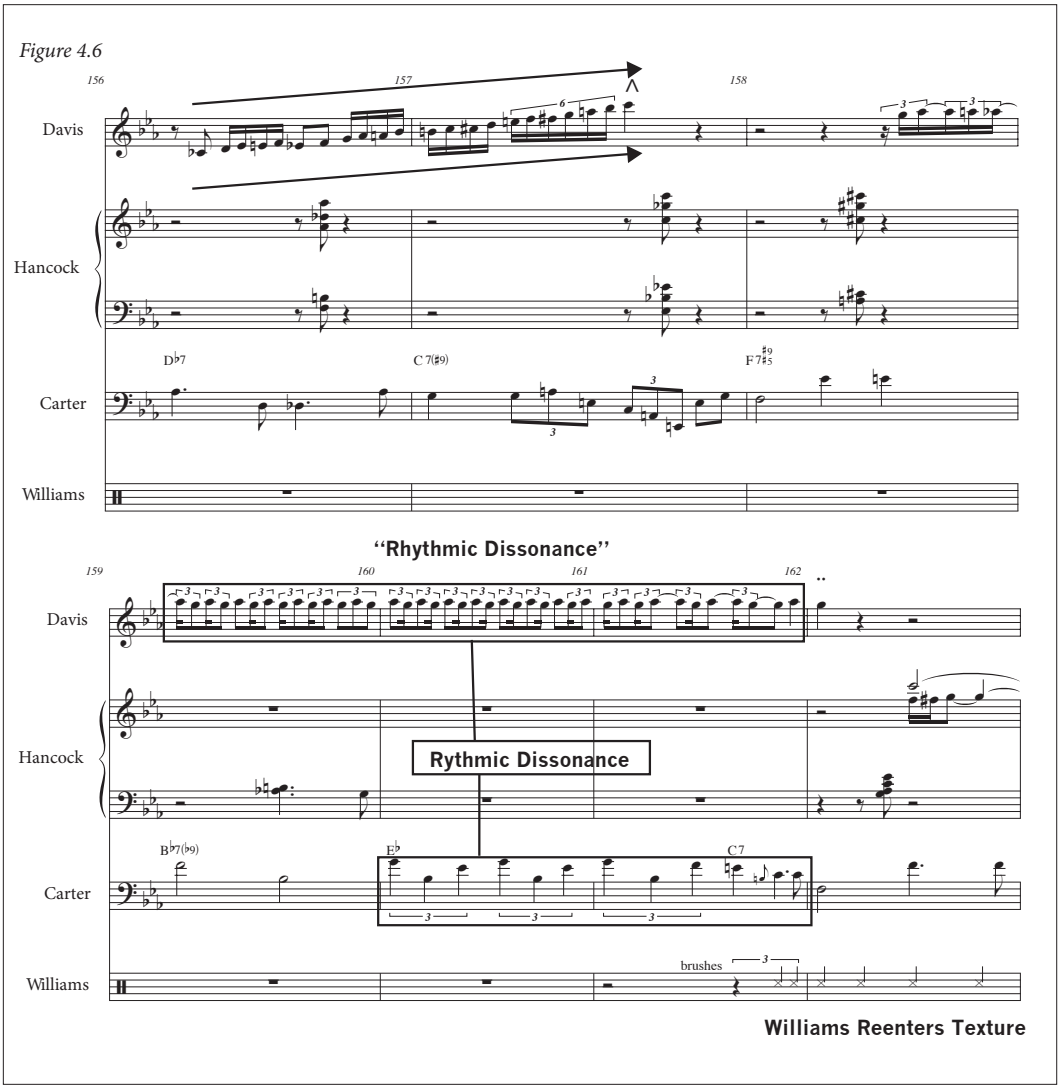
Figure 4.5



Hancock's persistent "hits" on the end of beat 3 of every bar create an underlying rhythmic tension. Davis compliments Hancock's syncopations by playing short, 1-bar motives that start on down-beats. The contrast between syncopated and non-syncopated ideas here adds to the tension. This is eventually "resolved" in m. 155 when Davis finally "catches" Hancock on the end of beat 3.

Measures 156-62

At this point in Davis' solo, the drummer is still absent from the texture. But in order to drive his solo to a final climax, Davis realizes that he will have to somehow coax Williams back into the fray. Davis' first attempt to do this comes in measures 156-7, the end of a 4-bar phrase. (fig. 4.6)

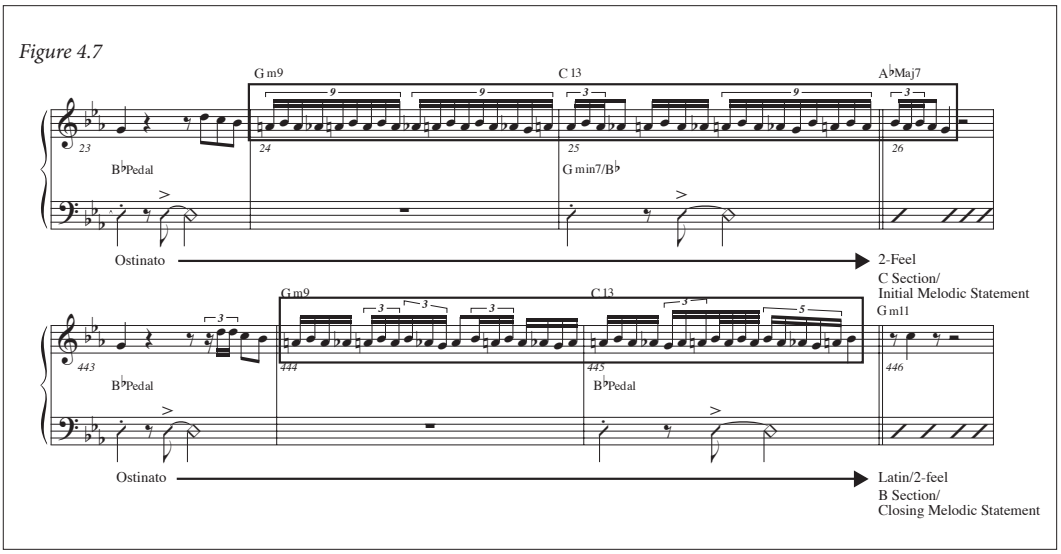


Here, Davis plays a dramatic figure that spans just over two octaves in range. As established in this and other studies, these kinds of dramatic bursts in Davis' playing are designed to influence the accompaniment. In this case, the sudden increase in dynamic level seems to be inviting Williams back into the texture.

At the start of the next phrase, however, Williams still is nowhere to be heard (measure 158). Not to be deterred, Davis unleashes a rhythmically complex figure in measures 158-62. The complex rhythms used by Davis during these measures create a great deal of instability in the regular pulse of the performance. Carter further adds to this instability in measures 160-61 by playing quarter note triplets instead of a standard 2-beat pattern. This lack of stability calls out for a resolution, and when Williams reenters the texture in measure 162, his steady timekeeping fulfills the need.

Davis uses "rhythmic dissonance" throughout his performance to guide the rhythm section into a steady pulse. (fig. 4.7)

Figure 4.7

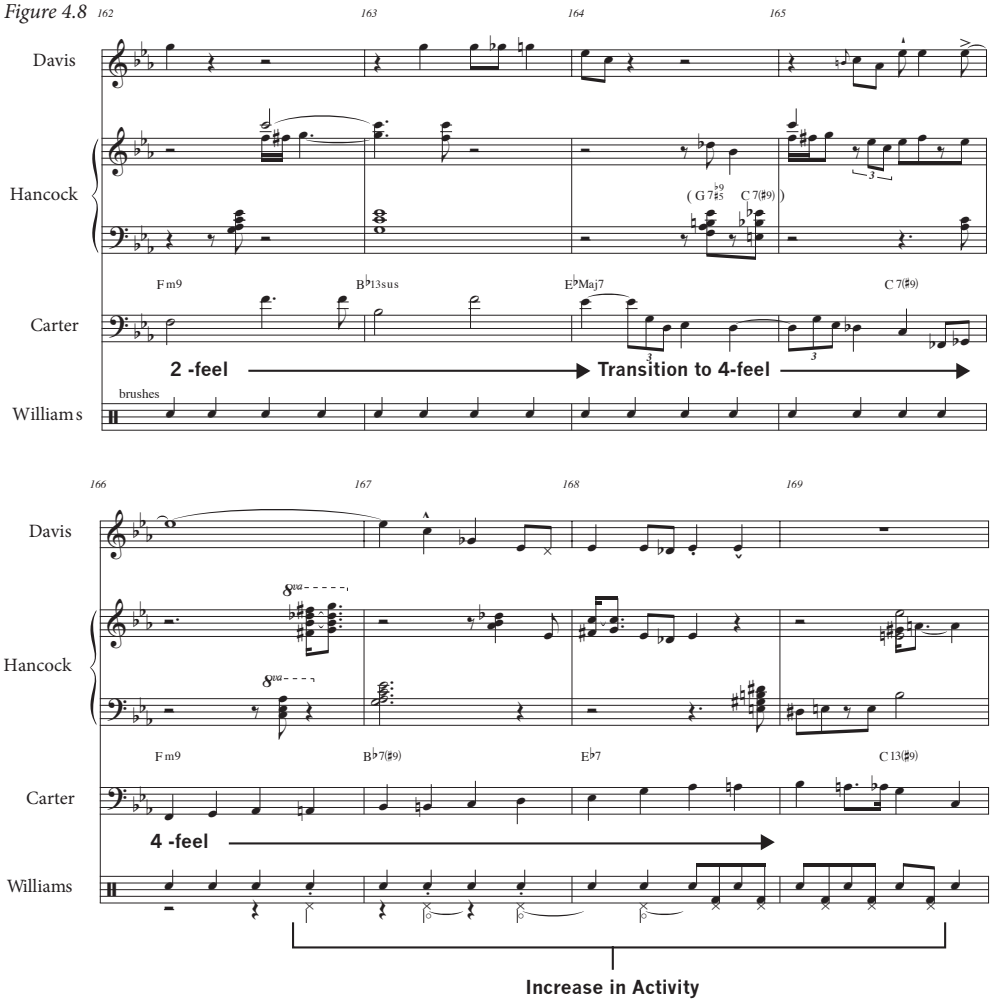


The first of these examples occurs during the second A section of the initial melodic statement, and the second example during the first A section of the closing melodic statement. In both cases, Davis uses rhythmically complex patterns to create tension that can best be resolved via the rhythm section's return to a regular time feel.

Measures 162-9

With drums back in the texture, the ensemble makes its final push towards a climax. Sensing this, Carter becomes more active and pushes the time-feel from a 2-beat pulse in measures 162-65 to a swing feel in measure 166. (fig. 4.8)

Figure 4.8

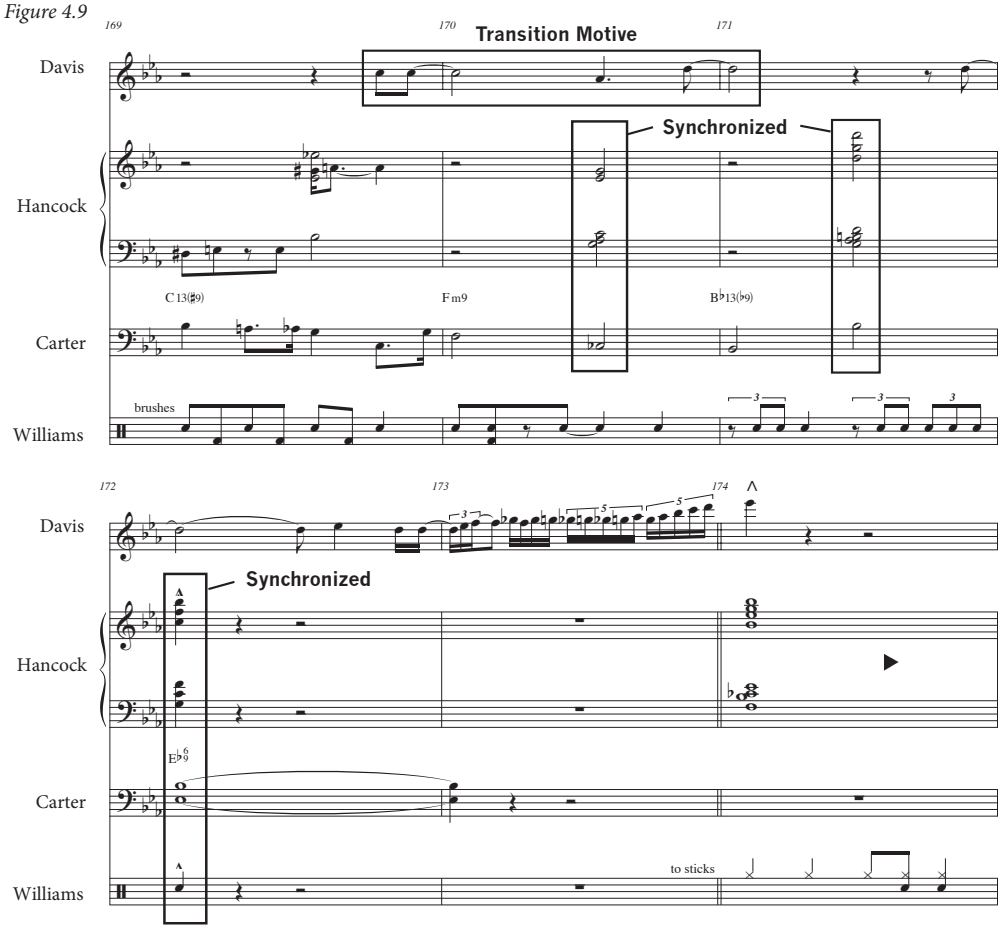


This acceleration of the rhythmic feel creates tremendous momentum and helps to propel the group towards the end of Davis' solo. A reaction to Carter's line is heard in all of the parts, especially with the dynamics as they become significantly more intense. This is also reflected in the increase in activity in all of the parts when compared with measures 150-62.

Measures 169-74

As Davis invokes the "transition motive," the ensemble quickly responds in a complimentary style. (fig. 4.9)

Figure 4.9



Although there is nothing extraordinary about the interaction here, it does demonstrate the power of the "transition motive" to coordinate the ensemble at the end of Davis' solo.

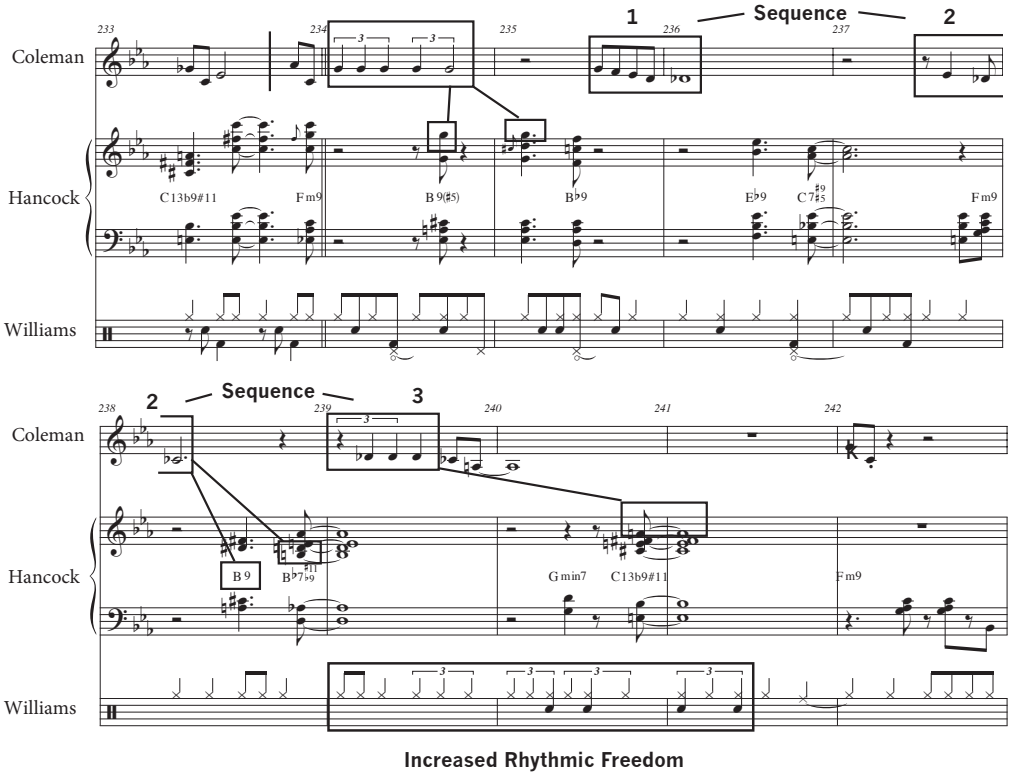
Coleman

An analysis of the tag section of George Coleman's solo shows that he too starts from a point of low dynamic intensity. From there, he builds to a climax and gradually returns to a more moderate dynamic before transitioning to Hancock's solo in measure 291.

Measures 233-42

Coleman begins the tag section with a sequence in the "lyrical style." This sequence is constructed of three, 2-bar motivic groups that descend by whole steps. (fig. 4.10)

Figure 4.10



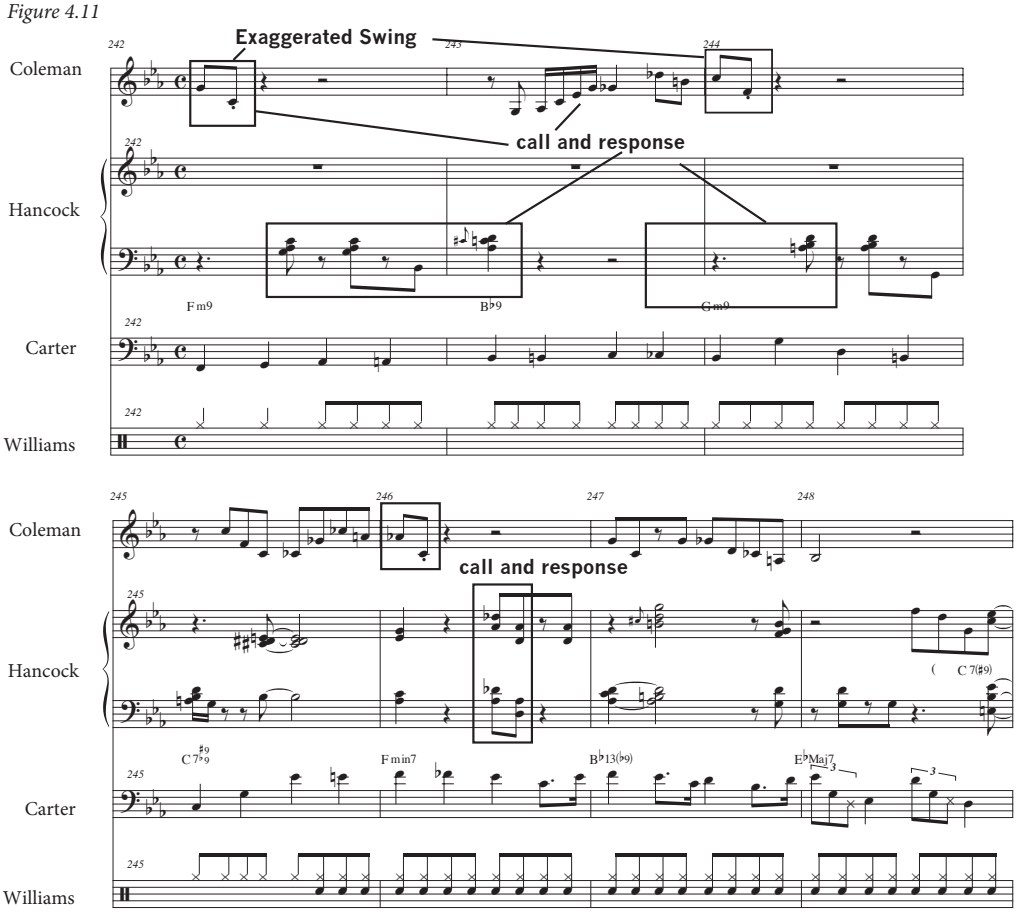
Besides acting as effective transitional devices, sequences also lead to interactive opportunities. As with call and response exchanges, a sequence allows the rhythm section to predict elements of melody, harmony and rhythm that the soloist will play next. In measures 238-41, Hancock is able to anticipate the chromatic notes of Coleman's sequence, and responds to them in a colorful and supportive way. This is seen in the way he includes b-natural in his voicing at measure 239 (Bb7#11,b9), and also in the way he includes a-natural in his voicing at measure 241 (C13#11,b9).

During episodes in the "lyrical style," Williams tends to play in a more active and freer manner (measures 239-40). In the "lyrical style," the solo line is considerably less active, which means that there is a lower risk of Williams' polyrhythmic elaborations "getting in the way" of the flow.

Measures 242-8

Coleman's eighth notes on the downbeat of measure 242 instantly propel the ensemble out of the "lyrical style" and into a powerful swing groove. (fig. 4.11)

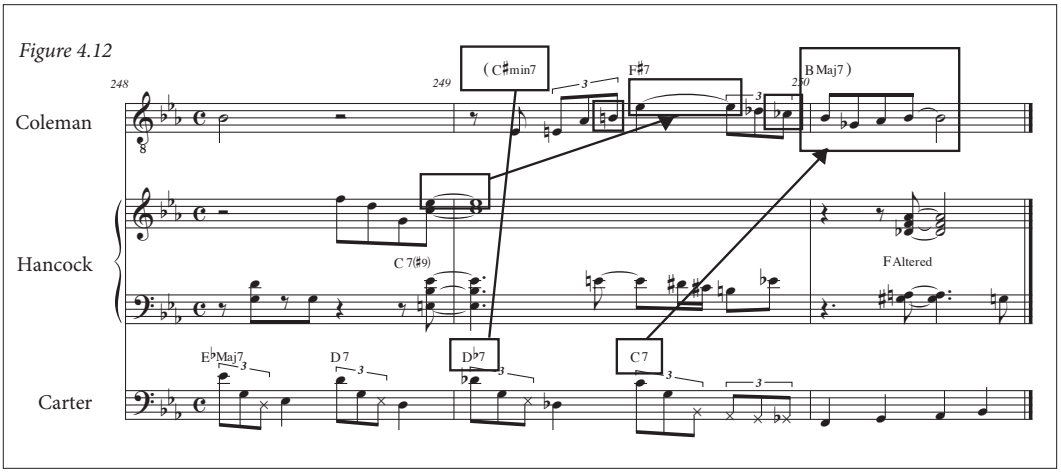
Figure 4.11



Besides using eighth notes in m. 242 to establish a swing groove, Coleman also uses them as the basis for a call and response exchange with Hancock. His line is effective in this regard because of the space he leaves every 2-bars after the eighth-note gestures.

Measures 248-65

In measure 250, Coleman introduces a new chord substitution pattern. (fig. 4.12)



This pattern functions by approaching Bb7 with BMaj7 instead of Fmin7. For additional color, C7 is replaced by its tri-tone substitution (F#7) in order to tonicize BMaj7 when the phrase repeats.

To some degree, these substitutions are "suggested" by Carter and Hancock in measures 248-49. Here, Carter plays a chromatically descending bass line that stands in harmonic and rhythmic contrast with the preceding measures. Carter's line presents a typical type of substitution, bridging the chords Eb and C7 chromatically via Eb-D7-Db7-C7, and leading back to Fmin7 in measure 250. However, another possibility that is suggested by this line is Eb-D7-Db7-C7-BMaj7, a possibility reflected in Coleman's phrase in m. 250 (C#min7-F#7-BMaj7). Although Carter does not play BMaj7 with Coleman, this perhaps represents an example of how some types of interactive intentions may produce unanticipated outcomes.

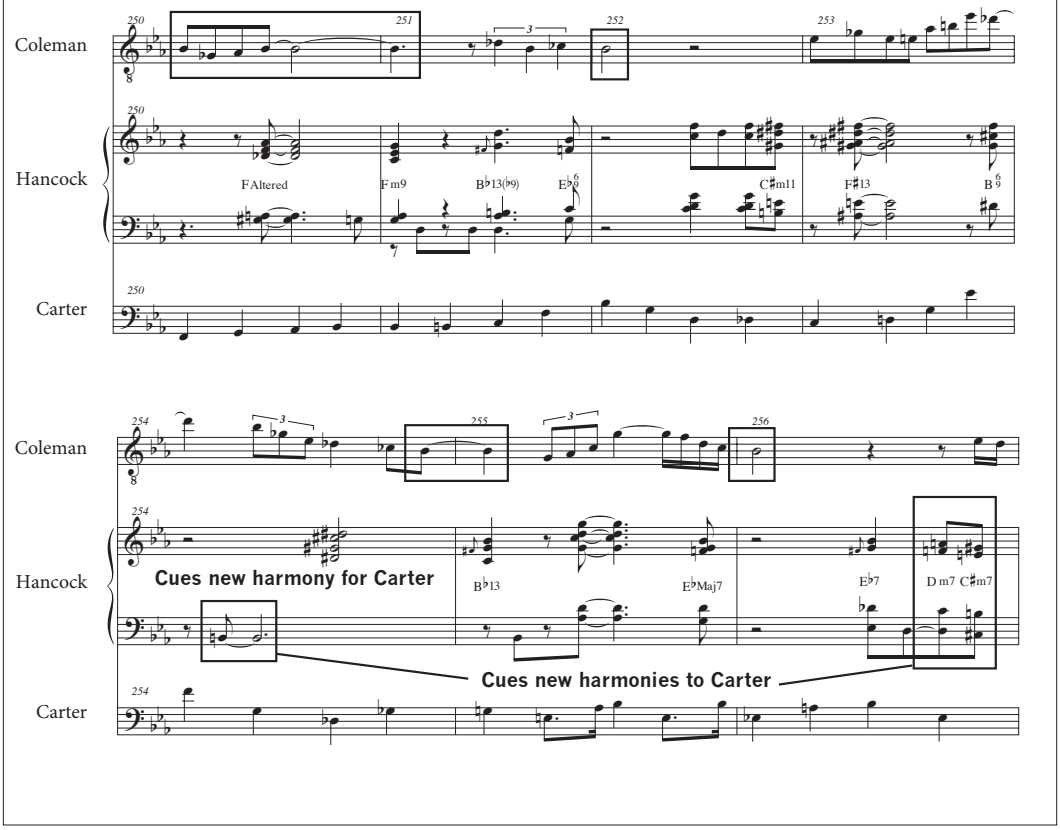
Hancock also plays a role in facilitating a cohesive transition into the new harmonic progression. In m. 249, he plays C7(#9) with e-flat as the top note in his voicing. The added extension makes the dominant chord here more ambiguous because it contains notes from both C7 and the tri-tone, Gb7, which is what Coleman's line suggests. Coleman responds to Hancock's voicing by also focusing on e-flat, reinforcing the note's functional ambiguity.

In considering how these interactions work, it is important to consider the context of the phrase structure and how Coleman and the rhythm section are dependent on it for creating anticipation and for making logical decisions as to what should be played. Measure 249 is the

fourth measure of the repeating 4-bar phrase that comprises the tag section, and is thus the pick-up measure for the beginning of the next phrase. What happens in m. 249 is thus a preparation for the new phrase at measure 250. Coleman, who is probably the only one who knows for sure what is coming, provides a clear indication of his movement to BMaj7 with a Dbmin9 arpeggio in m. 249. The two b-naturals in this phrase are clearly outside of the usual C7 and give Hancock a good clue as to what is coming.

In measure 250, Coleman's line is simple and focuses on the note b-flat. (fig. 4.13)

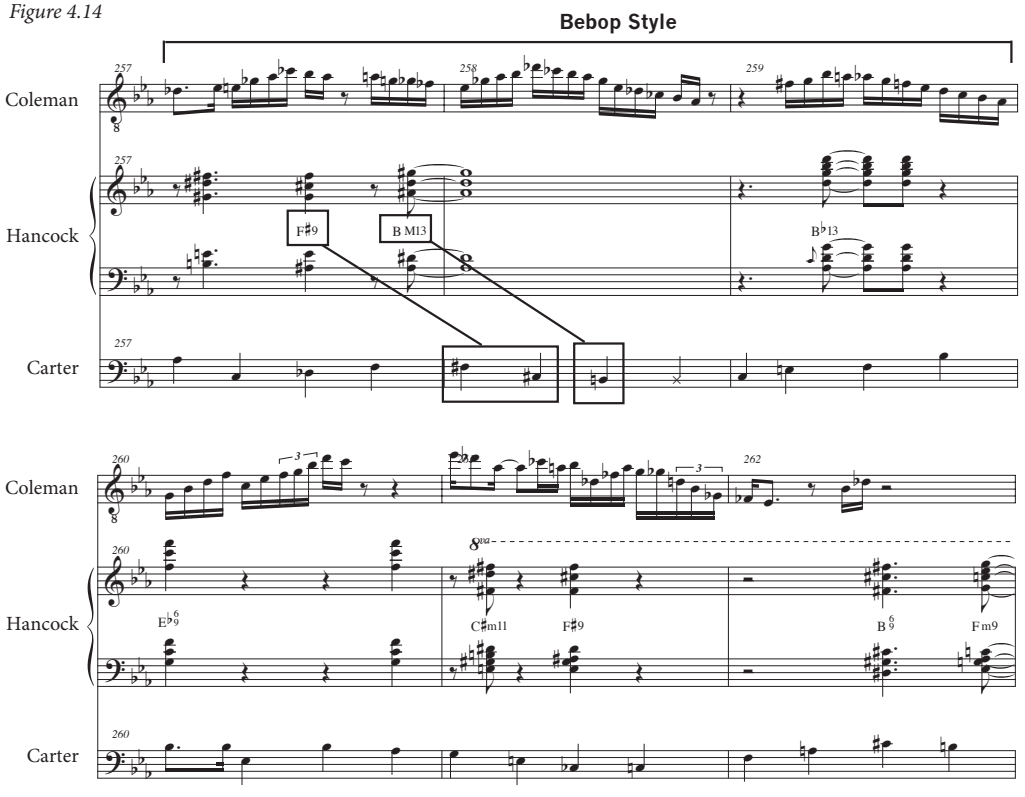
Figure 4.13



The notes here (b-flat, g-flat, a-flat and b-flat) are significant in multiple ways. The focus on b-flat is connected with the placement of b-flat in measure 248. By adding g-flat in measure 250, he subtly provides a context by which the two b-flats can be compared, with the g-flat sticking out as unique. Coleman's notes at measures 249-250 can also seen as a modal expression of Eb Phrygian or E Lydian, each of which share the same notes as B Ionian. This ambiguity allows Coleman a little wiggle

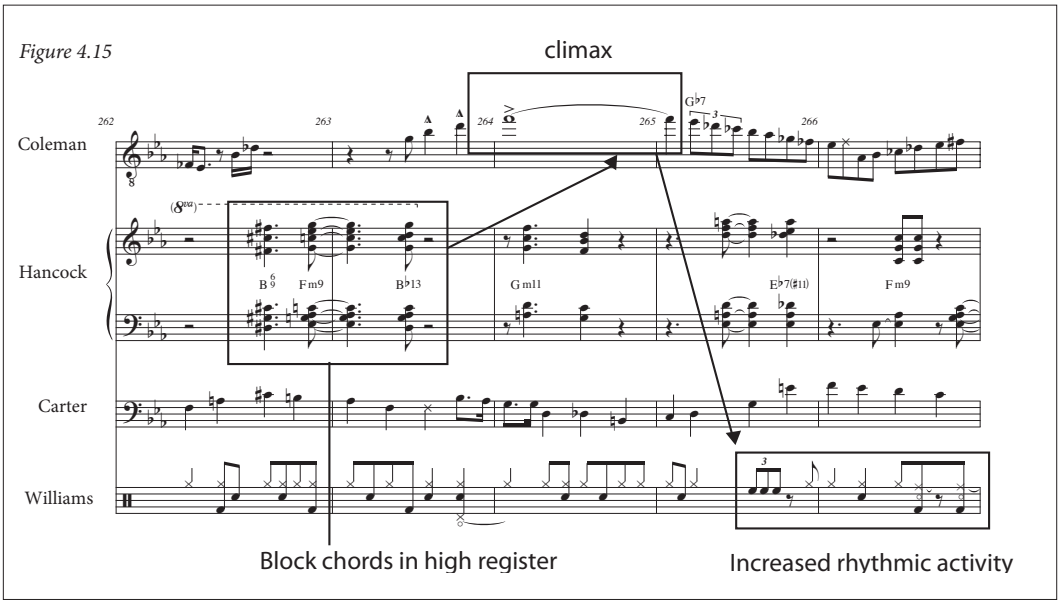
room should his chord substitutions not be adopted by the rhythm section. In measures 253-254, Coleman repeats the same collection of notes used in the earlier phrase, further emphasizing his intentions and establishing the new harmonic progression. These examples reveal Coleman's strategy of establishing new harmonies with simple and straight forward figures that clearly outline and suggest the chords, waiting to play more elaborate figures and harmonies until after Hancock has had a chance to hear what he is doing. By the end of m. 256, it is clear that Hancock recognizes the new progression, and Coleman feels free to play in a manner that employs more harmonic complexity and less motivic development (measures 257-262). Once Hancock recognizes the new progression, he makes a couple of attempts to indicate the harmonies to Carter who is still outlining the native chord progression. This occurs most clearly in measure 254. Here, Hancock plays a b-natural loudly in his left hand to indicate the BMaj harmony. His rhythmic placement is important and he puts it on the end of beat 1. This unusual placement is out of the context of what Hancock is otherwise playing, and is meant to stick out in an obvious way for Carter. Two measures later, Hancock plays block chords squarely on beats 3 and 4 which seems meant to clearly lead Carter chromatically down from Eb to Dbmin7 in measure 257. By placing his accompaniment on the beats instead of in a syncopated fashion, this movement is also meant to create contrast and hopefully indicate to Carter what is happening. (fig. 4.14)

Figure 4.14



This seems to work, at least for the moment, and Carter outlines the new progression in measures 257-258 using prominent chord tones on the strong beats (1 and 3). This includes a-flat and d-flat in measure 257 (suggesting Dbmin7) and f-sharp and b-natural in measure 258 (suggesting BMaj). Despite momentarily getting a grasp, Carter's line seems to wander away after these measures, suggesting that although he has the capacity to recognize and react to Hancock in the moment, he cannot grasp the logic of the new chord progression in the overall context of the phrase.

In m. 262, Hancock's accompaniment reaches into a noticeably high register, helping to push Coleman towards his climax in measure 263. Here, Coleman explodes into the peak of his range, holding a high f-natural for five beats for dramatic effect. (fig. 4.15)



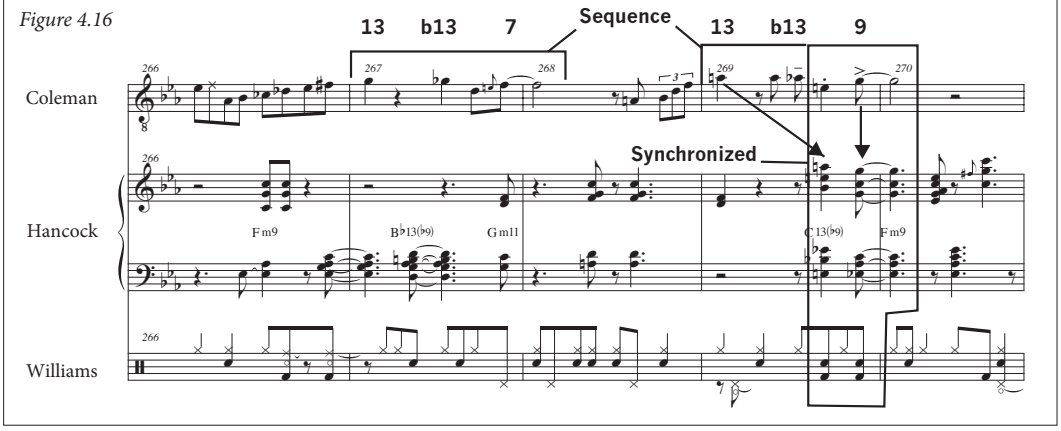
This note sticks out to the rhythm section because of its high range and length being held, which is in stark contrast to the barrage of sixteenth notes that came before in measures 257-261. Just as importantly, by holding the f-natural over the bar line into what would be Dbmin7 (a chord that does not support f-natural), Coleman has indicated the end of the substitution chain. Williams reacts to this peak by accenting the end of the formal unit with fills in measures 264-65, and Hancock starts the new phrase at measure 266 with Fmin7, officially ending the string of substitutions. Whether or not he intended to cue the rhythm section, Coleman's high f-natural gives them an opportunity to transition back to the regular progression in a cohesive way. Coleman's phrase at measures 265-66 seems to suggest that he has not yet stopped playing over the new progression,

but upon hearing the rhythm section, he deftly weaves his line into Bb13 in measure 267, and never looks back. Here, the usefulness of the substitution pattern becomes apparent as Coleman's Gb7 in measure 265 works as the tri-tone going to Fmin7 in 266.

Measures 266-70

Once again, Coleman's use of a sequence leads to enhanced opportunities for interaction with the rhythm section. (fig. 4.16)

Figure 4.16

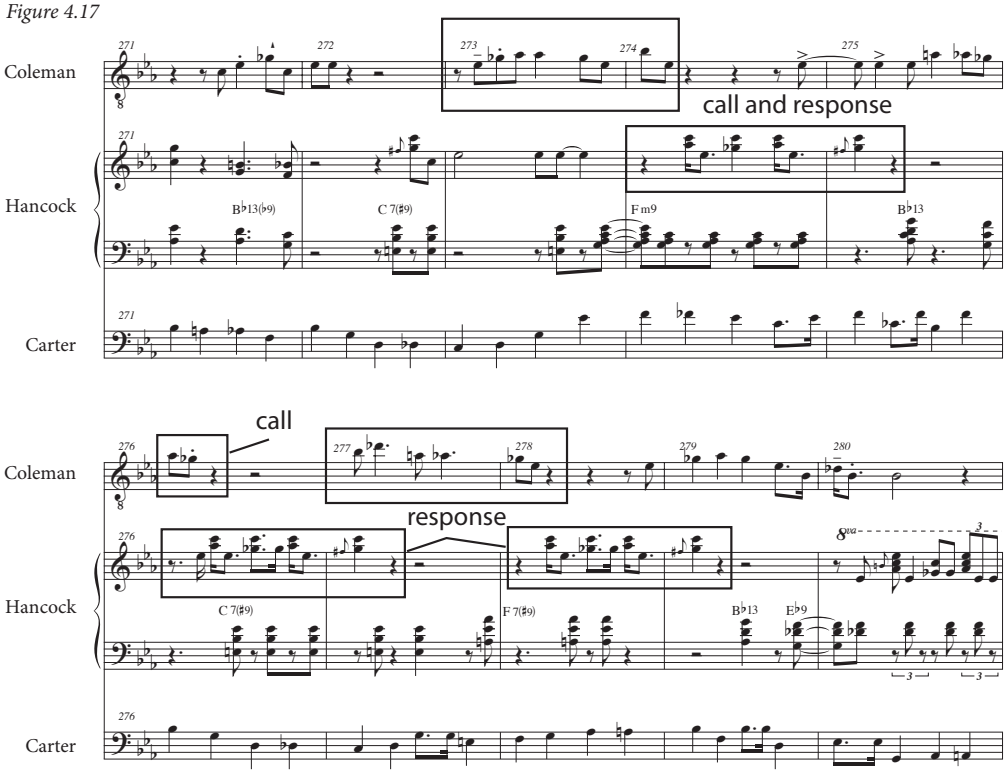


The sequence in this example works not only to cue Hancock as to the voice leading of Coleman's phrase (13-b13-7) but also functions as a set-up for Williams. Notice the arrival note on the end of beat 4 of measure 267. When Coleman repeats the basic rhythmic aspects of the phrase at measures 269-70, Williams correctly anticipates another accent on the end of beat 4. As well, Hancock is once again able to anticipate Coleman's note selection in the second half of the sequence. This is reflected in his use of a-natural and g as the top notes in his voicings in measure 269.

Measures 271-80

Fresh off of the climax of his solo, Coleman settles into the "blues style" in measures 271-80. (fig. 4.17)

Figure 4.17

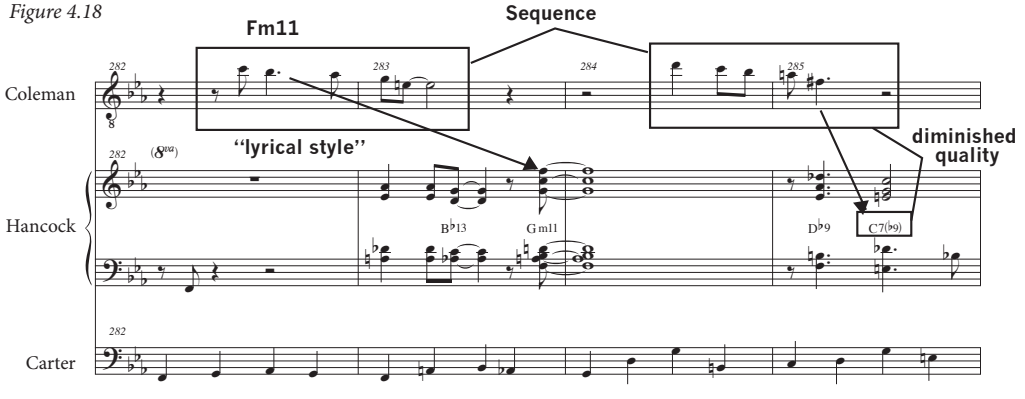


Call and response interactions are common in the "blues style," and we find such an exchange in measures 273-81. As with measures 242-48, Coleman is able to establish the negative space of his 2-bar motive by ending each figure with two eighth notes on the down beats of every other bar. This "negative space" allows Hancock to "answer" Coleman in a consistent fashion and reinforces the impact of Coleman's use of blues vocabulary.

Measures 282-5

Coleman's use of a sequence in measures 282-285 transitions the rhythm section out of the "blues style" and begins to signal the end of the solo. (fig. 4.18)

Figure 4.18



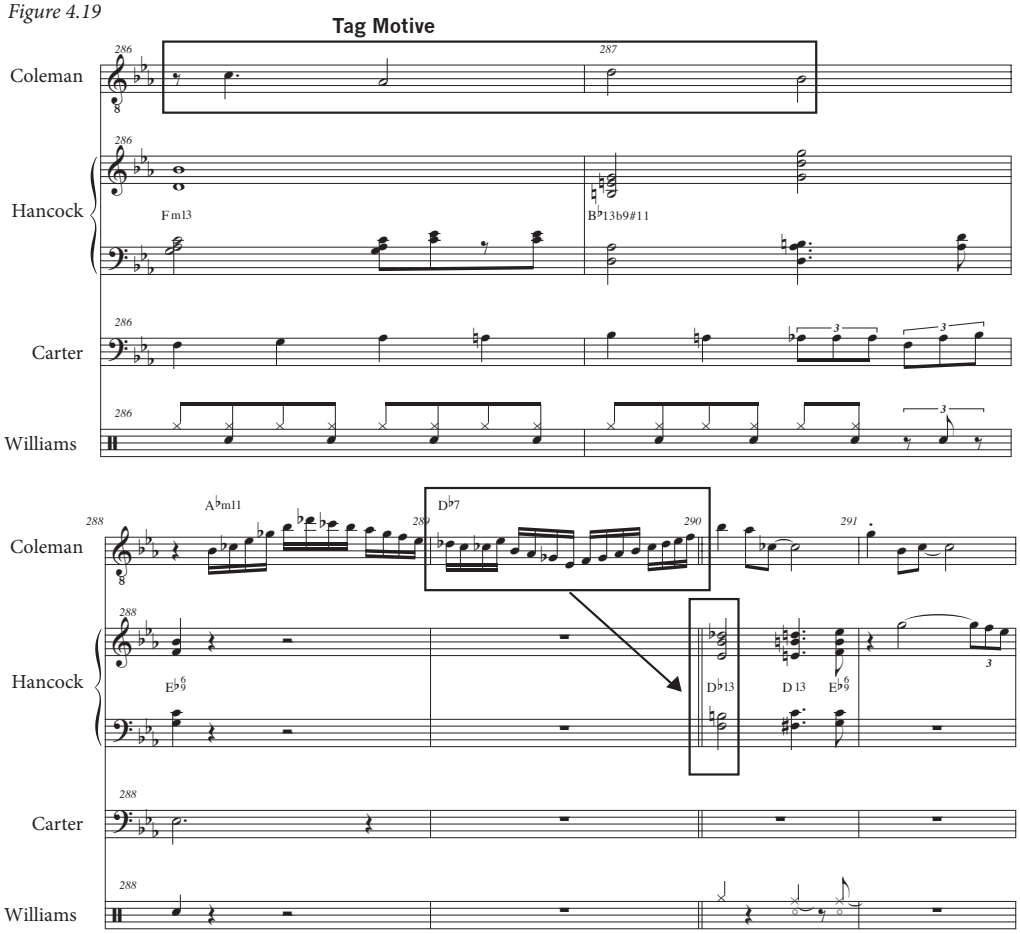
Again, the predictable nature of the sequence gives Hancock an opportunity to prepare a logical response to Coleman's line. For instance, notice the prominent nature of b-flat in Coleman's line at measure 282 suggesting Fmin11 as the harmony. Upon reaching the second half of the phrase, Hancock acknowledges this with Gmin11 in measure 284, anticipating that Coleman's next gesture will also utilize the eleventh scale degree of Gmin. Although Coleman's subsequent c-natural is only played in passing, this interaction adds a degree of continuity to the performance that would otherwise be missing.

Measures 286-91

After playing the "transition motive" in measures 286-7, Coleman performs an intense passage over the solo break. (fig. 4.19) Instead of playing EbMaj7, as would be "normal" during the final two measures of the form, Coleman's line outlines Abmin11-Db7. As a common substitution for Fmin7(b5)-Bb7(b9), this line functions as an anticipation of measure 1 of the form.[9] But what is compelling about this example is not necessarily the substitution itself, which Coleman uses frequently during the form, or the fact that he is anticipating it a full two measures early. What is compelling is the transference that occurs when Coleman's Db7 in measures 288-9 is transformed into an ostinato figure in measures 290-91 that shapes Hancock's first chorus on the form.

9 This is in direct relationship to the use of Ab minor that pervades the A sections both during the statement of the melody and during the solo section. Ab Dorian minor relates to Db7, a common substitution used in bebop during minor ii-V-I progressions. Here, Db7 is played as an anticipatory substitution for Fm7b5- Bb7(b9). It is also worth noting that the Ab melodic minor scale can also be used over Fmin7(b5).

Figure 4.19



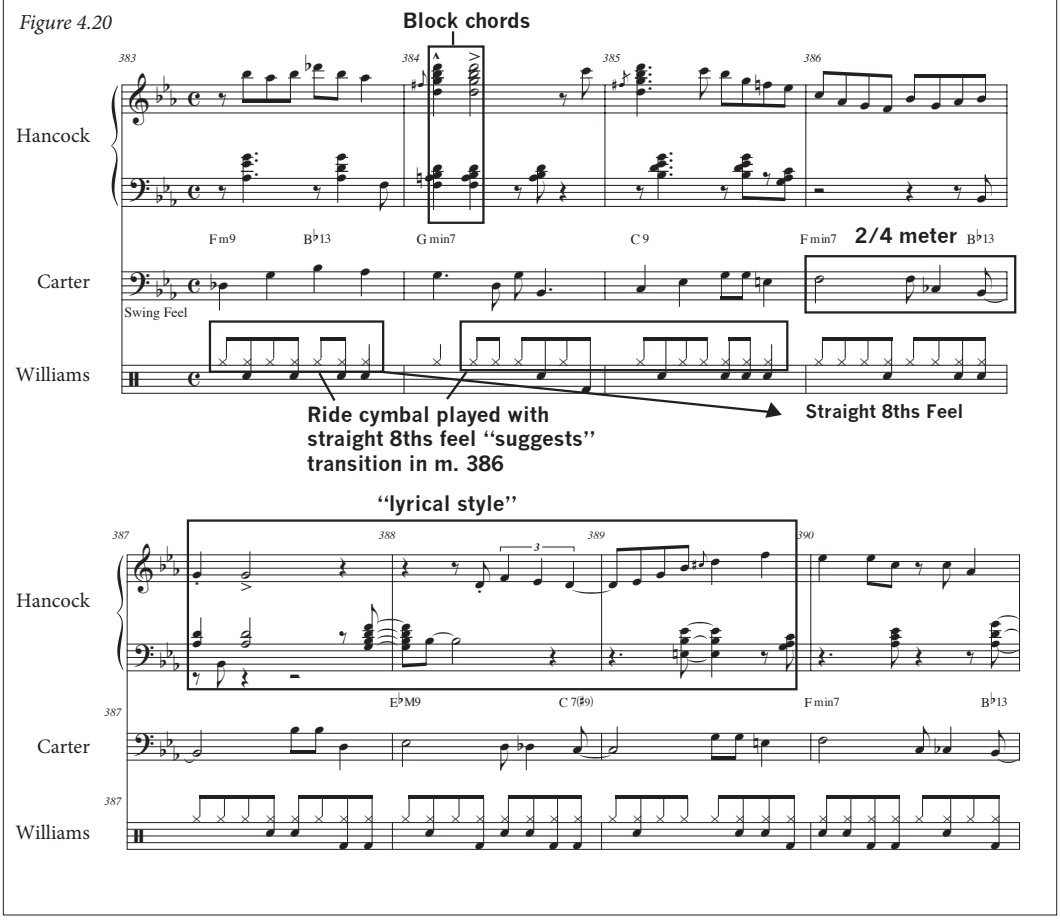
Hancock

Hancock's tag section features two build-ups to climaxes, the first spanning measure 350 to measure 378 and the second from m. 385 to m. 425. The following excerpts examine Hancock's drive to the second and more significant of these two climaxes. Along the way, Hancock creates tension through effective use of the "polymetric style," guiding Williams and Carter to his climax through rhythmic and harmonic interplay.

Measures 383-90

In measure 383, Hancock's solo is in the midst of its first climax, a fact punctuated by his use of block chords and a higher register (measure 384). Sensing that Hancock's solo will continue toward a second climax, Williams "suggests" a transition to a Latin-tinged straight eighth-note style. (fig. 4.20)

Figure 4.20



Williams carefully places his "suggestion" a full three measures before the start of the next formal unit (measure 386), providing ample time for the other players to react. Besides switching from a swinging eighth-note style to a straight eighth-note style, the new time feel also changes to a half-time feel, suggesting longer note values to Hancock.

Measures 391-405

After a short stay in the "lyrical style," Hancock begins to inject blues vocabulary into his playing in measure 391. (fig. 4.21)

Figure 4.21

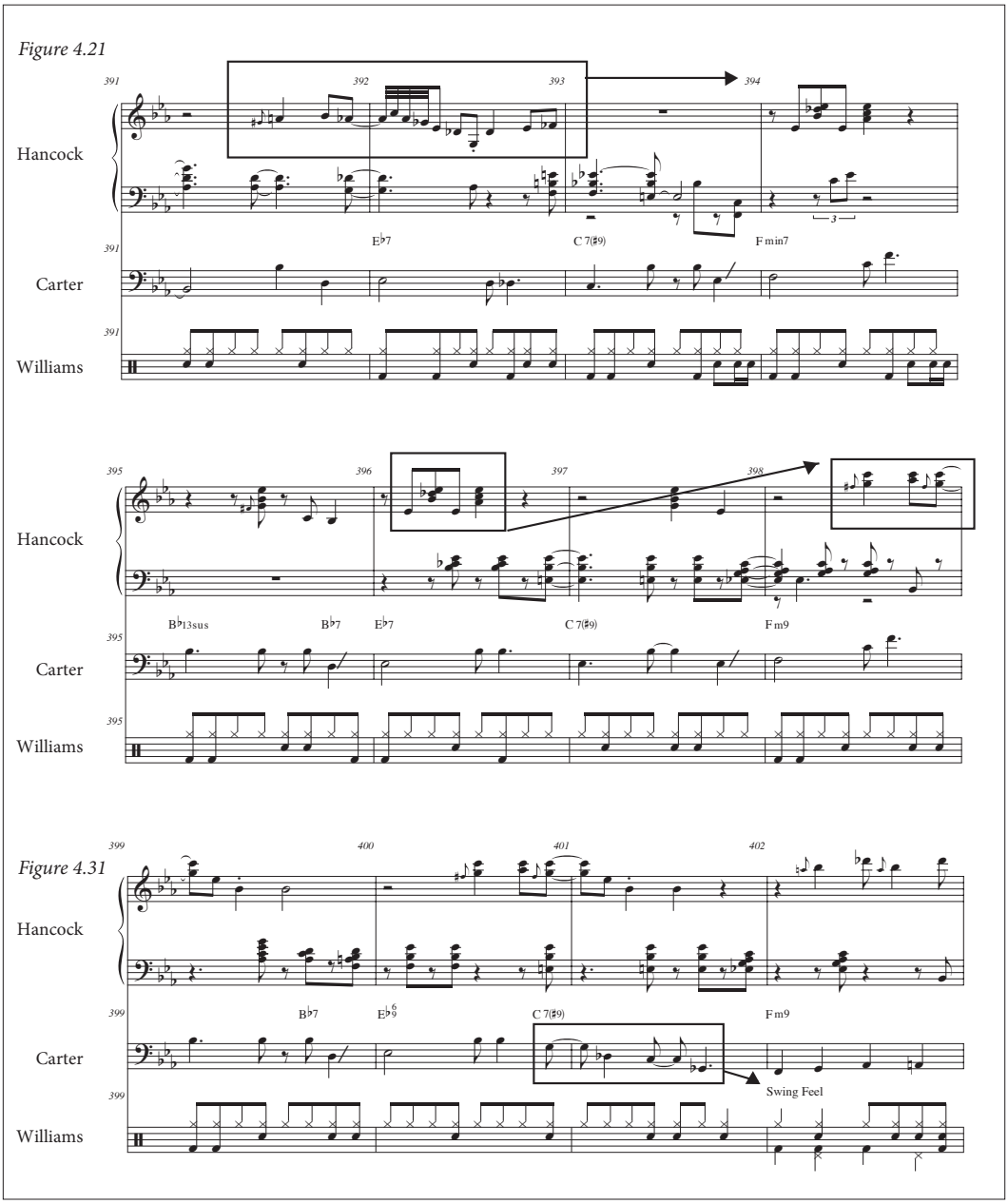


Figure 4.31

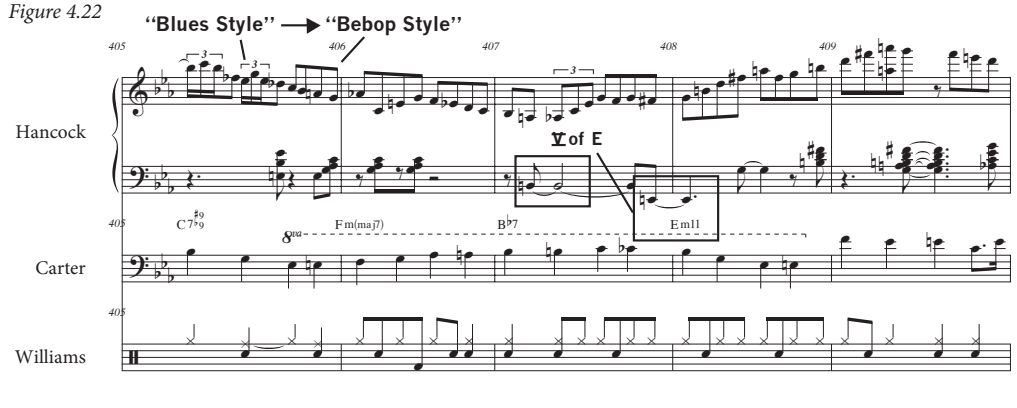
Despite the change in Hancock's style, the accompaniment continues in a straight eighth-note feel. Perhaps hoping to use blues vocabulary as a way to propel the group back into a swing-feel, Han-

cock's second motivic group is played in a higher octave (measures 398-401). This subtle method of intensification seems to have the intended effect on Carter. In order to facilitate a cohesive transition from the straight eighth-note style to swing style, Carter begins to "swing" a full measure before the start the next phrase (measures 400-2). The syncopated effect of the bass line here provides a clear contrast with the preceding measures, giving Williams a full bar to anticipate the upcoming shift in rhythm.

Measures 405-9

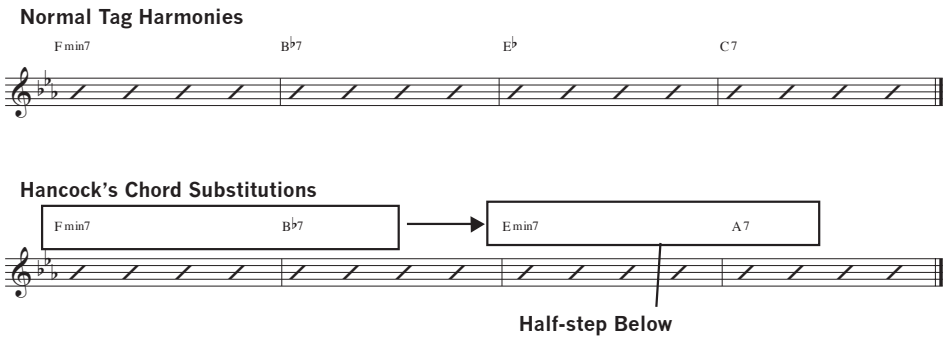
After the rhythm section starts swinging again in measure 402, Hancock continues in the "blues style" for one more 4-bar phrase (402-5). In measure 405, he begins to weave the 2-bar blues motive into a descending bebop line. (fig. 4.22)

Figure 4.22



Hancock uses bebop phrases here as part of a transitional strategy that will lead him from the "blues style" into the "polymetric style." However, they also function as a way for Hancock to establish a new chord substitution pattern. (fig. 4.23)

Figure 4.23

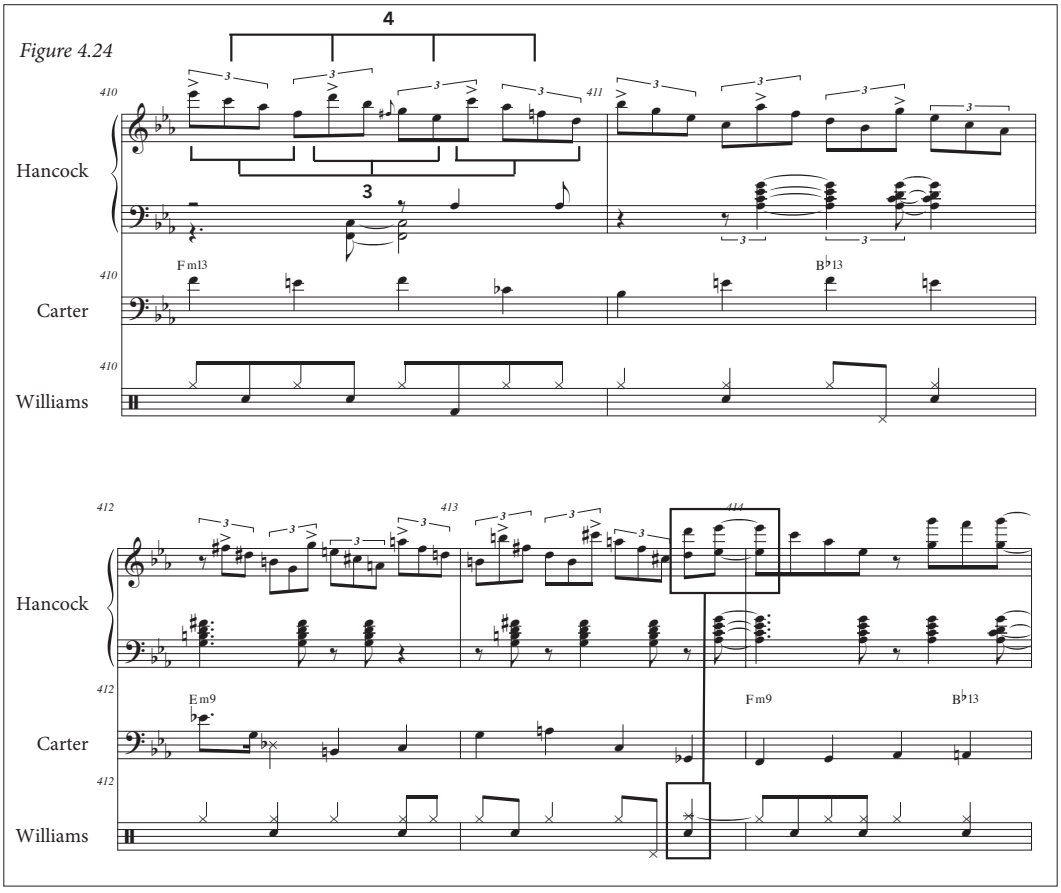


This kind of chord progression is frequently referred to as a "half-step below" substitution because the initial ii-V progression of the phrase (Fmin7-Bb7) is approached from a half step below (Emin7-A7).[10] By playing familiar bebop vocabulary during these measures, Hancock subtly eases into the new progression, and prepares himself for the "polymetric style" in measure 410. He attempts to indicate the new chord progression to Carter in measure 407 by playing notes in his left hand that indicate the bass notes of the harmony. The first of these notes is a b-natural that is played completely independent of his right hand line, which is expressing Bb7. Instead of actually playing B7 in measure 407, Hancock merely seeks to imply a V-I resolution to Emin7 in measure 408, giving Carter a full measure to prepare for the coming chord substitutions.[11]

Measures 410-14

Like Davis, Hancock uses complicated rhythmic figures to create tension over the course of a phrase. (fig. 4.24)

Figure 4.24



10 The "half-step below" substitution pattern is most famously used in John Coltrane's "Moment's Notice" and "Lazy Bird." See: John Coltrane, *Blue Train*, (New York; Blue Note, 1957).

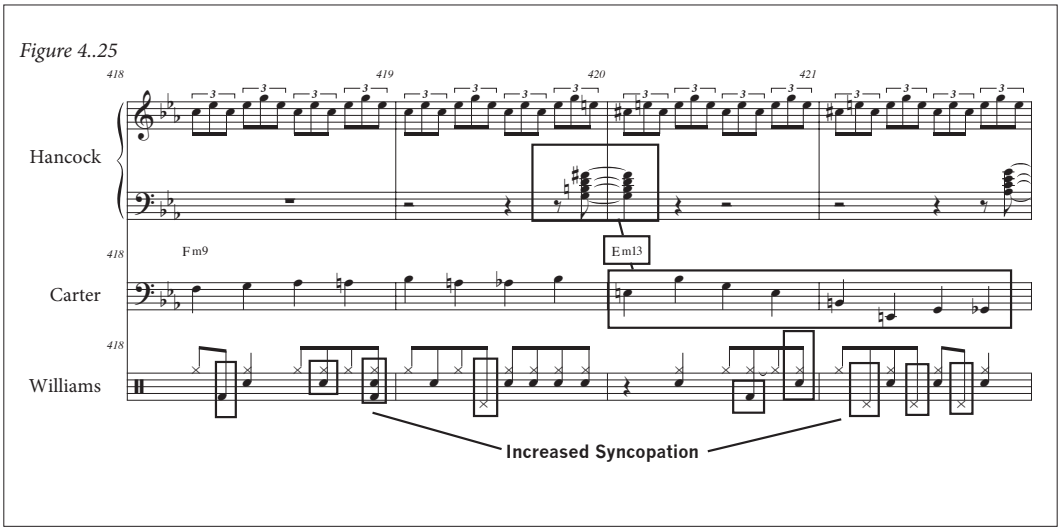
11 As will be discussed later, Carter doesn't recognize the new chord progression until measures 420-21.

During measures 410-11, Hancock superimposes a 6/4 meter over the native 4/4 meter using a step-wise diatonic pattern. In the following 2 bars, he displaces the rhythm by starting the pattern on the second partial of the first triplet group. With the buildup of rhythmic tension neatly partitioned into a 4-bar phrase, Williams is able to anticipate an arrival at the end of measure 413.

Measures 418-21

After a brief 4-bar phrase that features rhythmic stability and bebop vocabulary, Hancock continues his exploration of eight-note triplets. (fig. 4.25)

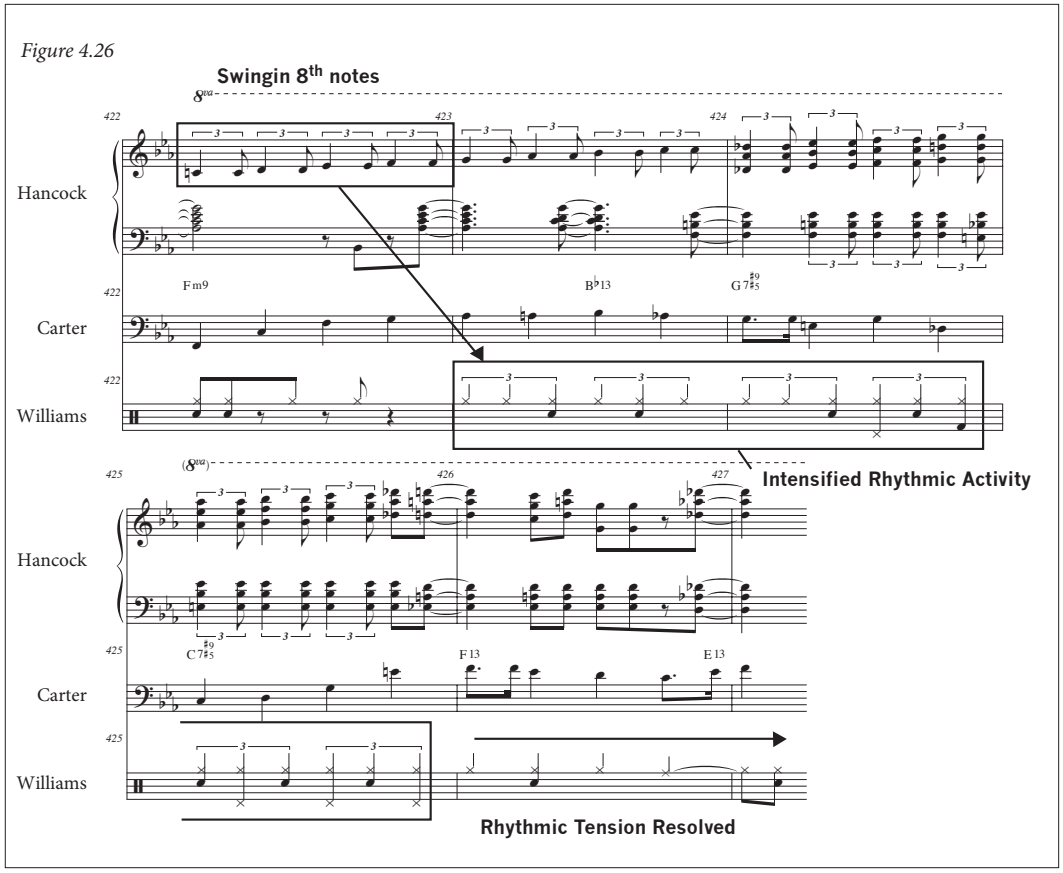
Figure 4..25



During this phrase, one begins to notice some subtle reactions to Hancock's harmonic and rhythmic elaborations. After three phrases of not recognizing Hancock's chord substitutions (measures 406-17), Carter finally expresses Emin7 in measures 420-21. Also, Williams' accompaniment becomes gradually more responsive to Hancock's persistent use of triplets, a fact reflected in his offbeat comping figures.

Measures 422-6

In the following phrase, Williams' accompaniment becomes even more active. (fig. 4.26)

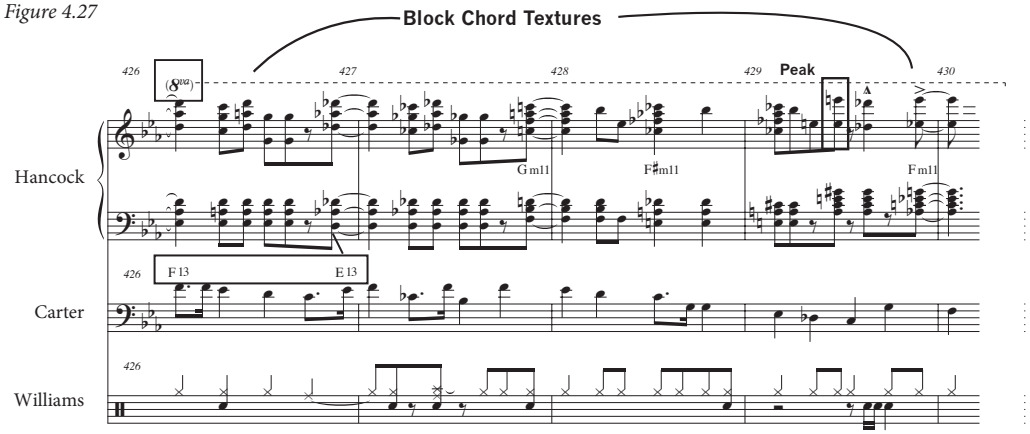


Here, Williams heightens the rhythmic tension by superimposing quarter-note triplets over the quarter-notes pulse. This tension is resolved in measure 426 as Hancock reaches the primary climax of his solo and Williams returns to a standard 4/4 accompaniment style.

Measures 426-9

Hancock reinforces the climax of his solo with a thickened texture and by exploiting the higher registers of the piano. (fig. 4.27)

Figure 4.27



The use of block chords during the climax of Hancock's solo suggests the influence of Davis' former pianists who also rely heavily on this technique.[12] The thickening of the chords and homophonic texture are evocative of "shout choruses" from typical big band arrangements.[13] Hancock colors the moment by substituting Fmin7 with F13, and the use of block chords provides an effective and idiomatic climax to his solo.

Rhythm Section

Stylistic Modulation

Tony Williams is a master at instigating new time feels in the ensemble. His primary strategy for changing the feel consists of playing elements of the new feel a measure or two before the end of a 4-bar unit, implying to the other performers that a new time feel will begin in the following 4-bar phrase.

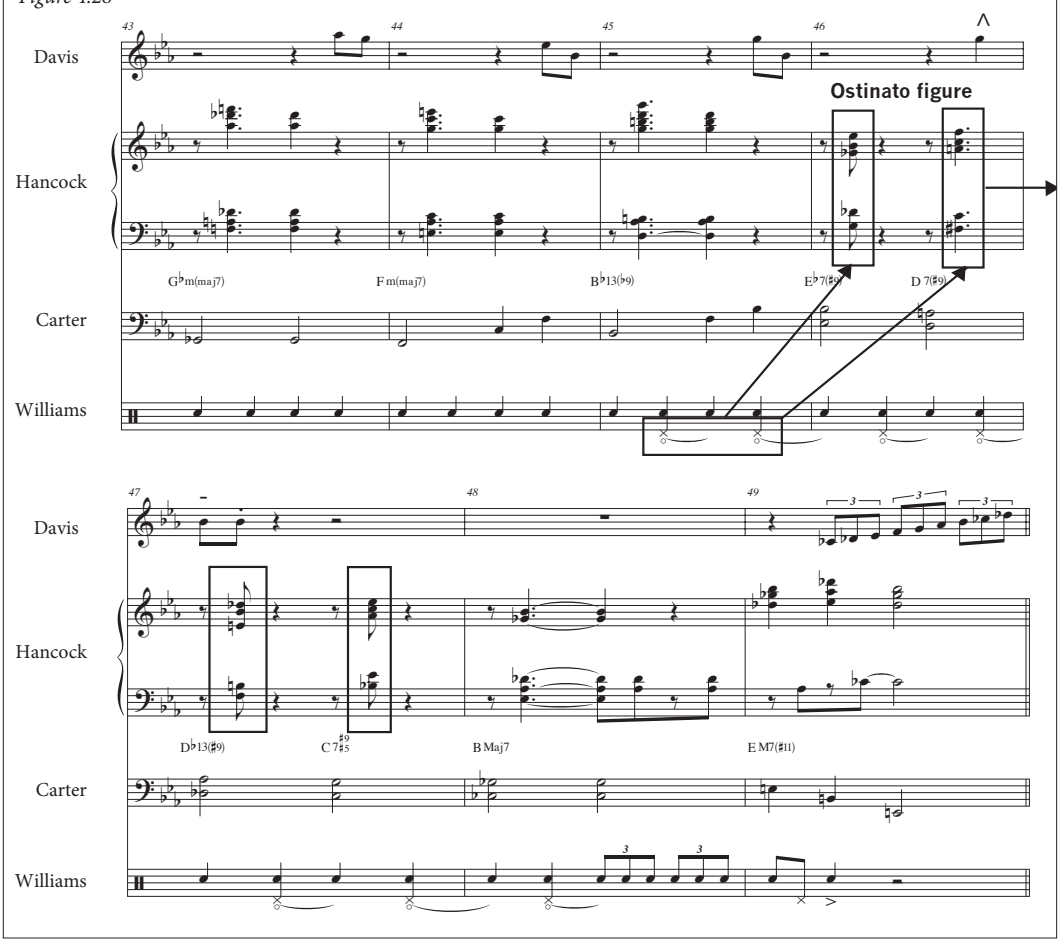
12 Red Garland's last chorus on the form of "All of You" on the *'Round About Midnight* recording uses this technique. Block chords also appear in one way or another during Wynton Kelly's final chorus on several recordings of "All of You."

13 Kernfeld, "Shout," in *New Grove Dictionary*, 1116. "A 'shout chorus' is a loud, spirited, climactic chorus in a performance by a big band, in which the brass section leads the whole ensemble."

Ostinato

Numerous examples of Williams instigating ostinato figures in the rhythm section can be found during "All of You." The first of these examples comes at the end of the B section during Davis' second chorus on the form. (fig. 4.28)

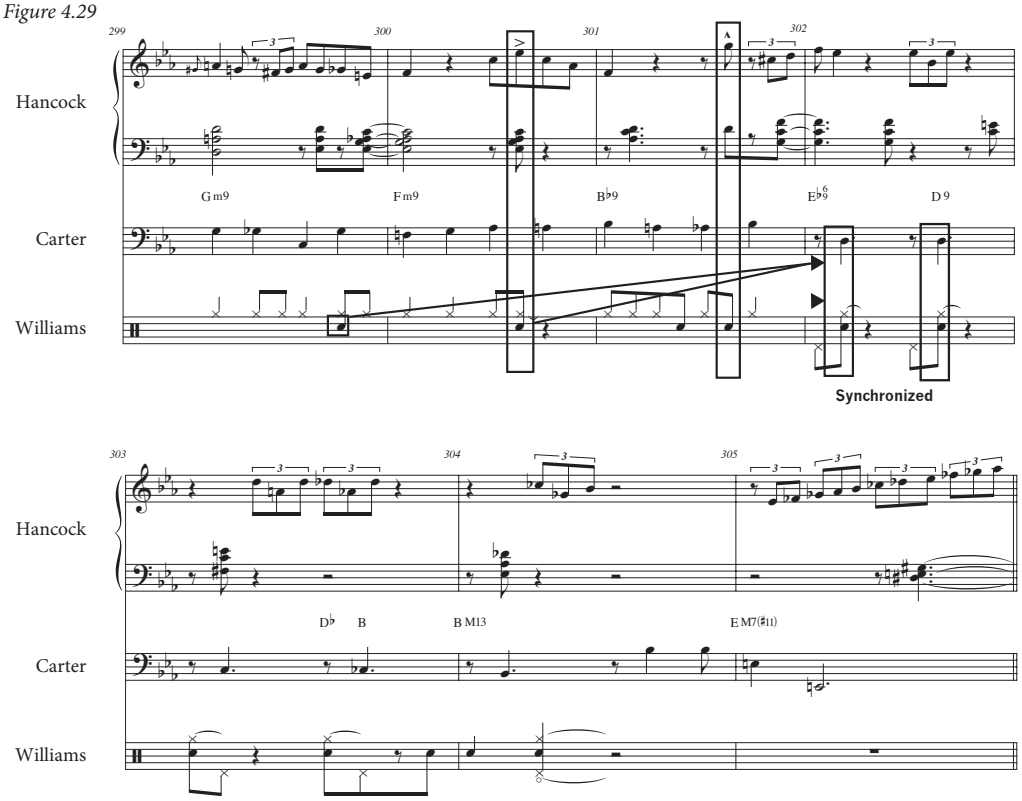
Figure 4.28



By playing on beats 2 and 4 in measure 45, Williams subtly reminds Hancock and Carter of the repeating motive that occurs during the first chorus of Davis' performance.

A similar event occurs during the first chorus of Hancock's solo, again at the end of the B section. (fig. 4.29)

Figure 4.29



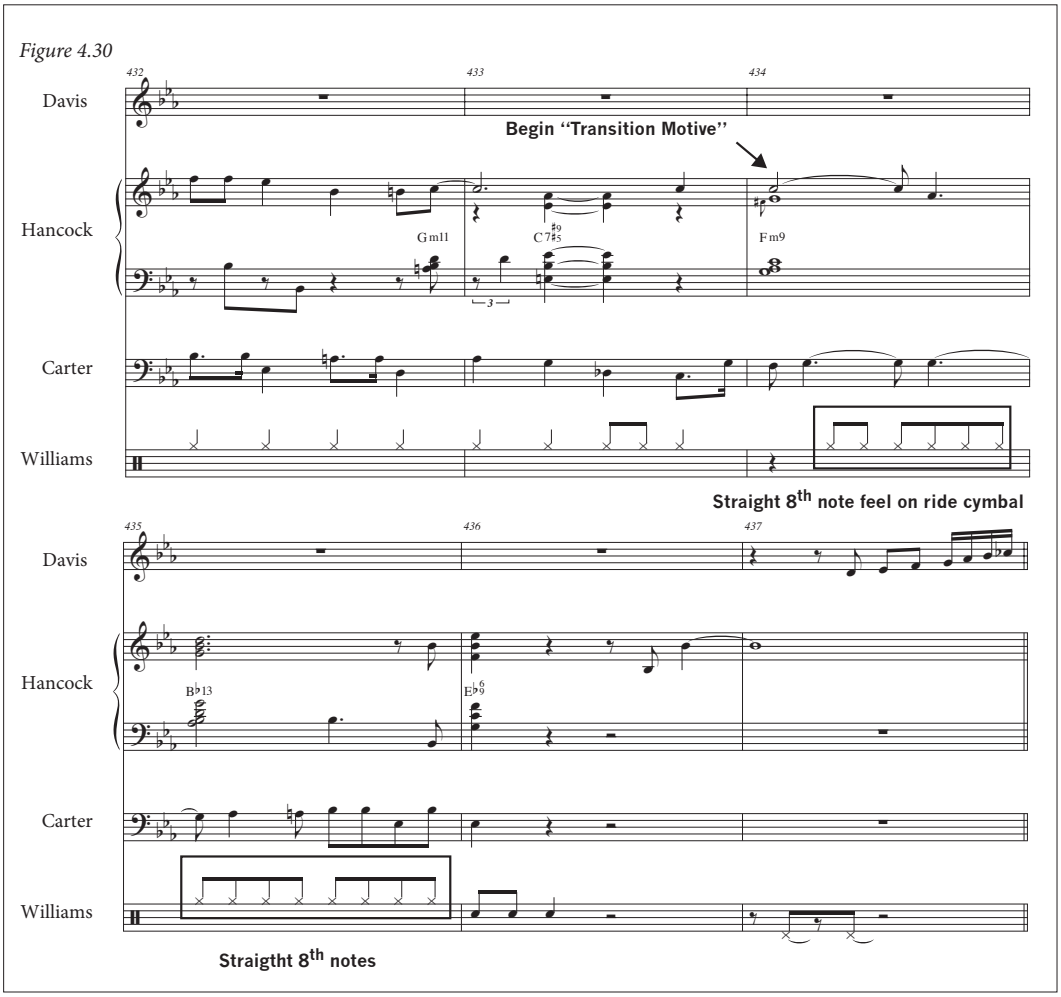
In this example, instead of Williams playing cues on beats 2 and 4, he accents the end of beat 3 (measures 299-300). The direct result is a transformation of Carter's approach to the by now familiar ostinato figure. Carter follows Williams' example and plays on the upbeats of 1 and 3 of the following phrase instead of the downbeats as in the first example (measures 46-49).[14]

14 Carter also plays this ostinato motive on the upbeats of 1 and 3 during the first chorus of Coleman's solo. It is possible that Williams' "suggestion" to play upbeats derives from here. (measures 186-89)

Straight Eighth-Note Styles

As discussed earlier in the chapter, Williams deftly guides the ensemble out of the first peak of Hancock's solo into a relaxed straight-eighths feel in measures 386-405. (see figure 4.20) A similar episode occurs towards the end of Hancock's solo. (fig. 4.30)

Figure 4.30



In this example, Williams begins playing in a straight-eighths style over Hancock's "transition motive." With Davis' impending entrance in measure 438, and a return to the ostinato figure that characterizes the A sections of the melodic statements, a transition to the straight-eighths style must wait until measure 446 when Davis cues a departure from the ostinato. Davis' use of rhythmic tension in measure 444 cues the departure from the ostinato figure, but it's Williams' stylistic suggestion from measures 434-35 that guides the ensemble into the straight-eighths feel.

Summary

The analysis in Chapter Four reveals numerous interactive techniques at work. Most notable is the wide variety of ways in which the ensemble members are able to create a sense of expectation. The use of sequences, call and response exchanges, phrase rhyming, and calculated stylistic contrasts allow the rhythm section to anticipate what the soloist will play next. From there, the rhythm section is able to prepare thoughtful and cohesive accompaniments that elevate the music to a higher level.

Chapter Five

Future Research Directions

Like the music itself, jazz research is still relatively young when compared to classical music studies. And although the study of interaction in jazz has gained momentum in recent years, additional research is required in the future if we are to gain a comprehensive understanding of the subject.

The Evolution of the "Living Framework"

The evolution in recent decades of well-known, popular songs in ensembles provides a promising topic for future research. Groups like the Charles Lloyd Quartet of the 1960s, the Keith Jarrett Trio of the early 1980s, the Wynton Marsalis Quartet of the late 1980s, the Jacky Terrasson Trio of the 1990s and Brad Mehldau Trio of the 2000s have explored these popular songs in a manner that demonstrates an enduring debt to the legacy of the Miles Davis Quintet of the 1960s.[1] As discussed in Chapter Two, the recordings made by these and other groups represent the continuation of the "living framework" of dozens of songs recorded over the last half-century. Unlike "original" compositions, which are often recorded only once by one artist, common popular songs provide a comparative model by which we may be able to assess the historically important developments of a particular era.

Contemporary Styles

Although Chapter Three of this study presents an archetype of one of the most common forms of the "jazz aesthetic," there are certainly many more to be explored. The emergence of free-jazz styles and a move away from tonality into modality and atonality creates the need for new aesthetic models that are designed around a different set of parameters. Additionally, new styles of improvisation have emerged to navigate this wider range of harmonic and rhythmic possibilities. Beyond the need for further studies of styles from the first half of the twentieth century ("bebop," "blues," etc…), efforts should be made to provide a more concise categorization of contemporary styles.

1 For examples, see: Charles Lloyd Quartet, *Dreamweaver*, (Atlantic, SD 1459, 1966). LP; Keith Jarrett Trio, Standards, Vol. 1, (ECM, 1255, 1983). CD; Wynton Marsalis Quartet, *Marsalis Standard Time Vol. 1,* (New York, N.Y.: Columbia, CK 40461,1987). CD; Jacky Terrasson, *Jacky Terrasson,* (Hollywood, Calif.: Blue Note, CDP 7243 8 29351 2 4, 1995). CD; Brad Mehldau, *The Art of the Trio. Volume One,* (Burbank, CA: Warner Bros. 9 46260-2, 1997). CD.

Jazz Research in the Digital Age

Many of the diagrams used in Chapter Three are constructed using digital technology that has only become commonly available in recent years. Although these diagrams are somewhat unique, other researchers are also using digital technologies in other areas of jazz research. For example, researchers like Fernando Benadon, Matthew Butterfield and Vijay Iyer have recently explored a subject called "expressive microtiming."[2] Using digital recording technology, they quantify elements of "groove" in a way that would not have been possible in the past. With these and other studies in mind, advances in digital technology and its wide availability suggest opportunities for new discoveries.

Research into ensemble interaction in jazz is hindered by a dearth of available full-score transcriptions. The emergence of studies such as this one and many others like it suggest the need for a large database of transcriptions, particularly ones that include scores of the comping instruments. Again, advances in the digital world may provide a solution to this need. The development of a website where qualified users can upload, download, and edit transcriptions would be a step in the right direction. Until steps like these are taken, research that relies on comparative analyses of multiple sources will remain difficult.

The Role of Expectation in Interaction

Chapter Four reveals that successful interaction in jazz largely depends on the creation of expectation. The use of sequences, call and response exchanges, phrase rhyming, and calculated stylistic contrasts are some of the most common techniques used by the soloists to create expectation in Davis' quintet. However, further research into this concept may well demonstrate the existence of many other techniques, providing additional information to performers and educators who seek to enhance the interactive capabilities of their respective ensembles.

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2 Vijay Iyer, "Embodied Mind, Situated Cognition, and Expressive Microtiming in African-American Music," *Music Perception* 19.3 (2002): 387-414; Benadon, Fernando. 2006. "Slicing the Beat: Jazz Eighth-Notes as Expressive Micro-rhythm." *Ethnomusicology* 50 (1): 73–98; Matthew Butterfield, "The Power of Anacrusis: Engendered Feeling in Groove-Based Musics," *Music Theory Online* 12/4, 2006.

Summary

Until recently, developments in jazz pedagogy have focused largely on individual achievement. Since the mid-1990s, texts by authors like Berliner, Monson and others have raised awareness to the central importance of interaction in jazz, leading to a shifting emphasis in jazz education.[3] It is hoped that the present writer's work will contribute to this shift in emphasis and to gain a greater understanding of the basic principles that have informed and continue to inform ensemble interactions in jazz.

3 Berliner, *Thinking in Jazz*; Monson, *Saying Something.*

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