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# Developing a Rhythmic Vocabulary: Exercises Derived from the West African Influence on Jazz

Brian Anthony Rodesch

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UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

DEVELOPING A RHYTHMIC VOCABULARY:  
EXERCISES DERIVED FROM THE WEST  
AFRICAN INFLUENCE ON JAZZ

A Dissertation Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Arts

Brian Anthony Rodesch

College of Performing and Visual Arts  
School of Music  
Music Performance

May 2016

This Dissertation by: Brian Anthony Rodesch

Entitled: *Developing a Rhythmic Vocabulary: Exercises derived from the West African influence on Jazz*

has been approved as meeting the requirement for the Degree of Doctor of Arts in College of Performing and Visual Arts in School of Music, Program of Music Performance.

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## ABSTRACT

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Rhythm is largely noted as a defining characteristic of jazz, yet as jazz education has gained a more prominent role in higher education, course time and materials dedicated to rhythmic training remain scarce. As previous research has demonstrated, there is an abundance of resources and methods that emphasize harmonic elements, focusing largely on chord/scale relationships; this prevalence of materials dedicated to harmony only serves to highlight the paucity of resources related to rhythm.

This study seeks to develop exercises that can supplement harmonic exercises and concepts to aid educators and performers in gaining a broader understanding of rhythm, while bolstering a performer's rhythmic vocabulary. This is accomplished by analyzing rhythmic characteristics of West African ensemble music, the influence this music had on the development of jazz, and how the rhythmic characteristics have been manifested in modern jazz. West African ensemble music was selected because of its noted correlation on the development of jazz, as well as for the practicality the characteristics have on applying to jazz and improvised music. From this analysis, exercises were developed that can be included in classroom or applied instruction.

## **ACKNOWLEDGMENTS**

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## CHAPTER I

### INTRODUCTION

#### **Criticism of Early Jazz and Jazz Education**

In its earliest perceptions jazz was often viewed as a subversive music that would prove detrimental to the youth of America through its use of “primitive” and “primeval” rhythmic elements.<sup>1</sup> Early writings criticizing jazz, most notably the rhythmic elements of the music, served to perpetuate this notion. A 1921 article appearing in the *Ladies Home Journal* titled “Does Jazz Put the Sin in Syncopation?” states:

Jazz originally was the accompaniment of the voodoo dancer, stimulating the half-crazed barbarian to the vilest deeds. The weird chant, accompanied by the syncopated rhythm of the voodoo invokers, has been employed by other barbaric people to stimulate brutality and sensuality. That is has a demoralizing effect upon the human brain has been demonstrated by many scientists.<sup>2</sup>

In their manual for high school music teachers titled *The Teaching and Administration of High School Music* Peter Dykema and Karl Gehrkins write:

Swing music—which is merely a highly emotionalized style of playing jazz, and to which we are in no sense objecting to as a legitimate type of human experience—is primarily physical. It induces violent physical movement—note the *jitterbug*. It is “fleshy” in its conception. It does not lead toward spiritual. It is “good fun” at the time, but it does not yield abiding satisfaction. To use such music in the school as a substitute for serious music is to cheat youth of a highly

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<sup>1</sup> David Ake, *Jazz Cultures* (Berkeley: University of California Press, 2002), 117.

<sup>2</sup> Anne Faulkner Shaw, “Does Jazz Put the Sin in Syncopation?”, in *Keeping Time: Readings in Jazz History*, ed. Robert Walser (New York: Oxford University Press, 1999), 34.

important experience which has the possibility of assisting in the development of spiritual resources.<sup>3</sup>

These statements reflect a common trend in the reception of jazz as a legitimate pursuit in the early to middle twentieth-century by promoting the idea that jazz goes against the stable and refined moral character that is expected of American youth by conjuring sexually charged or “spiritually immature” thoughts.<sup>4</sup> This perception led to a common idea among many early scholars and school administrators that jazz should not replace the study and pursuit of serious music, in this case Western art music. This point is perhaps best illustrated by the early reception of jazz education at historically black colleges and universities (HBCUs). In certain narratives describing the early foundation of jazz education at the institutional level, select authors cite the role of HBCUs as an important point of development in the field of jazz education.<sup>5</sup> However, as asserted by researcher and scholar London Branch, many of these schools were reluctant to include the teaching of jazz in their music programs, but rather emulated Eurocentric teachings and philosophies that were prevalent at white institutions in order to prepare their students to better function within society at large.<sup>6 7</sup> In tracing the early history and development of jazz education there are only limited examples of its inclusion in higher education throughout the early to mid 20<sup>th</sup> century. There was no real growth in formal

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<sup>3</sup> Peter Dykema and Karl Gehrkens, *The Teaching and Administration of High School Music* (Boston: C.C. Birchard, 1941), 455.

<sup>4</sup> Ake, *Jazz Cultures*, 118.

<sup>5</sup> Kenneth Prouty, “The History of Jazz Education: A Critical Reassessment” *Journal of Historical Research in Music Education* 26, no. 2 (2005), 83.

<sup>6</sup> Ibid, 83.

<sup>7</sup> See also, London Branch, *Jazz Education at Predominantly Black Colleges* (Ph.D. diss, Southern Illinois University, 1975).

jazz education until the 1960s, and this largely correlated with the burgeoning civil rights movement and growing acceptance of African and African-American culture.<sup>8</sup>

Additionally, this growth was largely made possible by early jazz educators presenting the teaching and learning of jazz using the same aesthetics as the study of Western art music, a point that will be further addressed in later sections.<sup>9</sup>

In Europe, the reception of jazz in the early twentieth century closely mirrored the criticism of the emerging music in the United States, as well as being perceived as the musical embodiment of the growing unrest towards the middle and upper classes.<sup>10</sup> However, beginning shortly after the turn of the century a steady flow of early jazz artists, including the Original Dixie Land Jazz, Will Marion Cook's Southern Syncopated Orchestra featuring Sidney Bichet, and Sam Woodling's groups, lead to mass exposure of American jazz to European audiences.<sup>11</sup> This early, and constant, exposure to jazz aided in shifting the perception of the music and hastened its acceptance in Europe, contributing to a revitalization of the continent's musical culture.<sup>12</sup> Much of this acceptance came in the form of embracing and utilizing the rhythmic elements of the music. This is evidenced in selected works of Milhaud, Stravinsky, and Ravel that demonstrate a strong influence from American jazz.<sup>13</sup> In a 1923 article titled "L'evolution

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<sup>8</sup> Prouty, "The History of Jazz Education: A Critical Reassessment," 87.

<sup>9</sup> Ibid, 88.

<sup>10</sup> Bruce Johnson, "The jazz diaspora," in *The Cambridge Companion to Jazz*, ed. Mervyn Cooke and David Horn (Cambridge: Cambridge University Press, 2002), 42.

<sup>11</sup> Ibid, 34.

<sup>12</sup> Ake, *Jazz Cultures*, 118.

<sup>13</sup> Ibid, 118.

du jazz-band et la musique des negres d’Amerique du nord” (“The evolution of the jazz band and the music of the Negroes of North America”) appearing in the French publication *Le courier musical* Darius Milhaud articulates his thoughts towards American jazz music:

Here I won’t dwell on the shock, the sudden awakening that this rhythmic style produced on us, with sounds that until then had never been brought together and now all at once were put before us. In it we heard the importance of syncopation in its rhythms and melodies, situated on a bedrock of dull regularity that was as basic as circulating blood, as a heartbeat or its pulsations... The power of jazz comes from a novelty of technique that extends to all of its elements. In rhythm there is an exploration of resources resulting from the constant use of syncopation, opening up in this music a realm of expression with the simplest means[...]<sup>14</sup>

Milhaud continues his early analysis of jazz by discussing further the importance of rhythm, especially in the African and African-American cultures, while minimizing the role of instrumentation and harmony in the early conception of the music. A 1928 article appearing in the *New York Times* quotes the director of the Frankfurt Conservatory, Bernhard Sekles, asserting “the teaching of jazz is not only the right but the duty of every up-to-date musical institution [...] an infusion of negro blood can do no harm. It will help to develop a wholesome sense of rhythm, which after all constitutes the life element of music.”<sup>15</sup> These excerpts both allude to the African influence on the conception and use of rhythm in the development of jazz, which will be further addressed in subsequent chapters. Additionally, both excerpts demonstrate an emphasis on the importance of

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<sup>14</sup> Darius Milhaud, “The Evolution of the Jazz Band and Music of the Negroes of North America”, in *Composers on Modern Musical Culture: An Anthology of Readings on Twentieth Century Music*, ed. Bryan R. Simms (Belmont: Schirmer Books and Thomson Learning, 1999), 238-9.

<sup>15</sup> “Jazz Bitterly Opposed in Germany”, in *Primitivist Modernism: Black Culture and the Origins of Transatlantic Modernism*, Sieglinde Lemke (New York: Oxford University Press, 1998), 92.

rhythm when defining jazz. Gradually, this viewpoint made its way back to the United States. In a 1924 article simply titled “Jazz,” Virgil Thomson writes:

Jazz, in brief, is a compound of (a) the fox-trot rhythm...and (b) a syncopated melody over this rhythm. Neither alone will make jazz. The monotonous fox-trot rhythm, by itself, will either put you to sleep or drive you mad. And a highly syncopated line like the subject of the Franck symphony in D minor or the principal theme of Beethoven’s third *Leonara* Overture is merely syncopation until you add to it the heavy bump-bump of the fox-trot beat. The combination is jazz.<sup>16</sup>

Though Thomson’s description does not share the same exuberance towards the music as Milhaud or Sekles, and is overly simplistic by modern standards, his article does serve as one of the first writings to seriously approach jazz rhythm from an analytical perspective. These excerpts all serve to illustrate a key point in the early perception of jazz that is best summarized by composer Aaron Copland; “One point has been generally made and agreed upon: that the essential characteristic of jazz is its rhythm.”<sup>17</sup>

Though the importance of rhythm has long been a critical defining characteristic of jazz, as the music and pedagogy have gained legitimacy in higher education there still remains a lack of resources dedicated to aiding musicians in developing a mature approach to rhythm.

### **Need for the Study**

Arguably, jazz education is reaching a zenith in higher education. Many colleges and universities are offering both undergraduate and graduate degrees in jazz studies. In

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<sup>16</sup> Virgil Thomson, “Jazz”, in *Composers on Modern Musical Culture: An Anthology of Readings on Twentieth Century Music*, ed. Bryan R. Simms (Belmont: Schirmer Books and Thomson Learning, 1999), 244.

<sup>17</sup> Aaron Copland, “Jazz Structure and Influence”, in *Composers on Modern Musical Culture: An Anthology of Readings on Twentieth Century Music*, ed. Bryan R. Simms (Belmont: Schirmer Books and Thomson Learning, 1999), 238-9.

1972 only fifteen schools offered degrees in jazz, by 1982 this rose to 72, and currently there are over 120 colleges and universities offering formal degrees in jazz studies at the undergraduate and graduate levels.<sup>18</sup> This in turn is producing a higher number of competent jazz educators that are being placed into classrooms and schools at all levels of education. However, with the establishment of formalized pedagogy certain aspects of the music have become more objectified in order to aid in assessment of skills that are deemed crucial for graduating jazz majors. Arguably, this objectification is rooted (and continues) in the necessity to measure students' work to be placed into standard grading systems (A-F) common at most institutions of higher learning. However, in tracing the early development of jazz education, its inclusion is largely linked to educators presenting the teaching and learning of jazz using the same aesthetics as the study of Western art music.<sup>19</sup> In his book *Jazz Cultures* David Akes contests that the objectification of certain aspects of jazz music is due largely to the fact that by viewing jazz using "nineteenth-century European aesthetics" teaching jazz in higher education can still fall under the guise of students learning "serious music."<sup>20</sup> Akes writes:

Given that the written score is the document with which most conservatory-trained music teachers and department administrators are familiar, it seems almost inevitable that the focal points of "note choice" and harmony would carry over into jazz education. Notation and harmony-based improvisational theory suit classroom use: notes, chords, and harmonic progressions translate easily to paper, blackboard, and textbooks. And teachers can measure the students' grasp of the materials "objectively" through written exams.<sup>21</sup>

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<sup>18</sup> "Jazz in America Today," <http://www.jazzinamerica.org/JazzResources/JazzEducation/Page/164> (2010), accessed 7 December 2010.

<sup>19</sup> Prouty, "The History of Jazz Education: A Critical Reassessment," 87.

<sup>20</sup> Ake, *Jazz Cultures*, 119.

<sup>21</sup> *Ibid*, 120-1.

In his 2008 article “The “Finite” Art of Improvisation: Pedagogy and Power in Jazz Education,” appearing in *Critical Studies in Improvisation*, researcher Kenneth Prouty suggests that pedagogical choices made by faculty, and influenced by administrators, are now largely responsible for shaping students’ musical individuality and creativity, and this is leading to greater improvisational homogeneity.<sup>22</sup> Prouty states:

The discourse of academically-based jazz improvisation reflects the precarious existence of educators and students within it, caught between competing traditions of academic musical study, with its long established canons and methods, and the expectations of an improvisationally-based idiom which demands individuality and freedom of expression. Sometimes these two cultures are at odds: pedagogical methods within academic jazz improvisation reflect this, with emphasis on what is measureable, assessable, and readily able to be codified. This forms the core criticism of jazz improvisation in such contexts: it tends to be too codified, too easily constructed and replicated by student performers whose improvisations show little creativity [...] Within an academic context [...] in which assessment and instruction sometimes limit choices, students may not always have the opportunity to make their own decisions or to discover their own paths towards improvisational practices.<sup>23</sup>

With this need to validate jazz pedagogy in higher education, many of the pioneering jazz educators of the 1960s and early 1970s constructed curriculums and methods that drew from the language and approaches of teaching Western art music.<sup>24</sup> These methods, which are still largely employed today, emphasize harmonic and melodic aspects that are more easily assessed and standardized.<sup>25</sup> Though approaching jazz education from this perspective may have aided in legitimizing it in academia, it can be

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<sup>22</sup> Kenneth Prouty, “The “Finite” Art of Improvisation: Pedagogy and Power in Jazz Education,” *Critical Studies in Improvisation* 4, no. 1 (2008), 1.

<sup>23</sup>Ibid, 8-9.

<sup>24</sup> Ibid, 4.

<sup>25</sup> Ibid, 5.

argued that it has also proven to be detrimental by diminishing the importance of non-harmonic elements, most notably rhythm.

This de-emphasis of rhythm in formal pedagogy, which is amplified by an abundance of materials dedicated to harmony and technique, is confirmed by research analyzing the content of previously published jazz method books. In his 1987 dissertation *Jazz Improvisation: A Recommended Sequential Format of Instruction* Robert Zwick concludes that commonly used and available jazz improvisation methods favor emphasizing a harmony based approach in teaching improvisation, with an emphasis on chord/scale relationships.<sup>26</sup> This conclusion is concurred in James Robbins and Robert Walter's 1988 *A Historical and Critical Survey of Recent Pedagogical Materials for the Teaching and Learning of Jazz*.<sup>27</sup> Both surveys also conclude that non-harmonic components of improvisation, including rhythm, are under-represented in formalized instruction and further research should be dedicated to advancements in these areas.<sup>28 29</sup>

Though much of the criticism towards jazz education is directed at standardized curriculums and methods that lead to a codified harmonic approach of graduating jazz majors, an understated corollary effect of this is institutions diminishing the self-taught

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<sup>26</sup> Robert Zwick, *Jazz Improvisation: A Recommended Format of Sequential Instruction* (PhD Diss, North Texas State University, 1987), 414-20.

<sup>27</sup> James Robbins and Robert Witmer, "A Historical and Critical Survey of Recent Pedagogical Materials for the Teaching and Learning of Jazz," *Bulletin of the Council for Research in Music* 96, (Spring 1988), 23-24.

<sup>28</sup> *Ibid*, 23-25.

<sup>29</sup> Zwick, *Jazz Improvisation: A Recommended Format of Sequential Instruction*, 420-1.



aspect of jazz music that has historically aided performers in gaining a unique, distinctive style.<sup>30</sup> In his 1993 book *Jazz: The American Theme Song* James Collier writes:

Jazz musicians, in an earlier day, had to learn for themselves. Bix Beiderbecke worked out a system of cornet fingering that remains unique; Jack Teagarden developed an unorthodox trombone technique that is almost inimitable [...] self-teaching gave them something else, and that was distinctive, individual quality that made their work instantly identifiable [...] With students all over the United States being taught more or less the same harmonic principles, it is hardly surprising that their solos tend to sound much the same.<sup>31</sup>

From this statement it can be inferred that much of what defines a performer's personality is derived from aspects that are developed through individual exploration. This lack of "self-teaching," or self-exploration, in formal pedagogy has garnered criticism from prominent performers. Joe Henderson, when speaking about the academic study of jazz, said, "Everybody is doing the same thing, you don't get the individual fingerprint like you used to among players."<sup>32</sup> Guitarist John Scofield, in a 1996 *JazzTimes* interview, asserted that students in jazz programs "play the same licks because they have the same books."<sup>33</sup> In his book *Self-Portrait of a Jazz Artist: Musical Thoughts and Realities*, saxophonist and educator Dave Liebman discusses his view of schools and their affect on individuality:

When I first came to New York I was surprised at how "traditional" much of the scene was. I think that's why nothing much has happened in jazz in the last thirty years because of the jazz schools. The program is so based on standards and learning the bebop language that people maybe forget about their own identity. If

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<sup>30</sup> Prouty, "The "Finite" Art of Improvisation: Pedagogy and Power in Jazz Education," 10.

<sup>31</sup> James L. Collier, *Jazz: The American Theme Song* (New York: Oxford University Press 1993), 152-55.

<sup>32</sup> Peter Townsend, *Jazz in American Culture* (Jackson: University Press of Mississippi, 2000), 179.

<sup>33</sup> Ibid, 176.

they had some personality the school can easily take it away if you're not a strong enough person.<sup>34</sup>

These statements illustrate the importance of self-exploration in developing individual approaches to both harmonic and non-harmonic aspects of the music. Arguably then, a distinct approach to rhythm is one trait that lends most to a performer's sense of individuality and creativity, and should be more of a focal point in formalized studies.

The importance of a strong, individual approach to rhythm is concurred by Liebman, who states:

When one listens to music what are the key elements that a listener responds to aside from the obvious factors of volume and intensity? Beyond the actual notes played (melody and possibly harmony depending upon the music) there are two aspects that immediately affect any listener. This is especially true in an improvised art such as jazz where the composition is secondary to the performance itself. It is also true that these two elements are central to discerning the style and musical personality of the artist. In jazz, if we were to give five saxophonists the same notes to play in the same tempo and same context, why would we immediately know that one player was Sonny Rollins while the other was for example Wayne Shorter?

The first impression that affects the listener is the sound emanating from the instrument [...] In jazz after tone, it is what I call "time feel" that most expresses an artist's unique conception. The manner in which the player *rhythmically* phrases is to an even larger degree more revealing than the actual melodic and harmonic content. It conveys a truly physical impression to the listener which is difficult to describe in words.<sup>35</sup>

However, rhythm itself is a broad, nebulous concept that is difficult to quantify, and because of this it is difficult to include in formal pedagogy. Associate Professor of Jazz Studies at the University of Northern Colorado James White states, "Rhythm is difficult to teach and assess because it is often the last aspect to mature in a student's

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<sup>34</sup> David Liebman, *Self-Portrait of a Jazz Artist: Musical Thoughts and Realities* (Rottenburg, N. West Germany: Advance Music Publishing, 1988).

<sup>35</sup> Dave Liebman, "Jazz Rhythm," [http://www.daveliebman.com/earticles2.php?DOC\\_INST=8](http://www.daveliebman.com/earticles2.php?DOC_INST=8) (2009), accessed 6 November 2013.

playing.”<sup>36</sup> However, from this statement one of the primary questions this study hopes to address can be asked: If a harmonic and technique based improvisation methodology is balanced by an equal focus on rhythmic pedagogy, will this expedite students’ rhythmic improvisation and maturity?

### **Purpose of the Study**

The purpose of this study was to develop a series of exercises that will aid advancing improvisers in improving their time, feel, and rhythmic vocabulary in order to better utilize rhythm as a tool for creative improvisation. The exercises were derived by examining rhythmic characteristics present in West African music and dissecting both how they are used in ensemble music, as well as how music is conceptualized, taught, and learned in West African culture. Secondly, a brief survey of how the West African rhythmic characteristics affected the development of jazz, and how they are used or manifested in modern jazz is presented. Consideration was given to rhythmic concepts used by master improvisers, and how they correlate to the West African tradition. In conclusion this document addresses the following questions:

- Q1 What aspects of African music and culture can be adapted and applied when teaching/learning jazz rhythm?
- Q2 How can the aspects derived from questions #1 and #2 be implemented into individual or class instruction?

### **Scope of the Study**

The intent of this study was to develop exercises that will supplement harmonic based approaches to teaching improvisation found in commonly used methods and

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<sup>36</sup> James White, personal interview (Greeley, CO: 16 November 2010).

publications. This study did not intend to develop a full curriculum, or syllabus, for a jazz improvisation sequence based on rhythmic practices, but rather to offer educators and performers a series of exercises that will prove useful in addressing an area of deficiency in jazz pedagogy. Additionally, though many of the concepts being developed and presented are directed towards enhancing jazz pedagogy and improvisation, it is the author's belief that these exercises will prove beneficial to melodic improvisers in any genre and style.

## CHAPTER II

### REVIEW OF LITERATURE

With the continued growth of jazz pedagogy over the last half-century there has been a considerable influx of both jazz methods and research addressing numerous topics related to jazz education and performance. These works provide students, educators, and performers a breadth of resources to assist in further developing the skills necessary to find success as improvisers and pedagogues. The following section will briefly survey important contributions to jazz pedagogy and research that are relevant to the scope of this study, as well as works related to African music and the African influence on jazz.

#### **Method Books**

Since the 1950s there has been an increasing amount of published jazz methods available to aid students and educators in developing skills to become proficient improvisers. Two important works by Zwick (1987) and Robbins and Witmer (1988) analyze commonly used and available methods from the last half-century in order to find areas of neglect in formalized methods.

*Zwick's Jazz Improvisation: A Recommended Sequential Format of Instruction* (1987) is a comparative analysis of thirteen different jazz methods, including seminal works by authors such as; Jamey Aebersold, David Baker, Jerry Coker, John Mehegan, Ramon Ricker, and George Russell. For his method of analysis Zwick established

seventeen areas of content (instructional areas) and analyzed each publication for its emphasis in these areas. He then assigned a percentage of emphasis to each area, for each method, to establish a median. Then “by selecting instructional areas recorded above the median per cent of emphasis...a recommended format of instruction was developed.”<sup>37</sup> From this analysis he concluded that the materials he surveyed placed a significant emphasis on harmonic elements of jazz improvisation including; chord progressions, scales for improvisation, and patterns, while aspects of style (which includes rhythm) were neglected.<sup>38</sup>

Robbins and Witmer’s *A Historical and Critical Survey of Recent Pedagogical Materials for the Teaching and Learning of Jazz* (1988) offers greater criticism of published jazz methods than Zwick. After presenting a brief history of the development of jazz methods, and further categorizing works by areas of emphasis, the study also concludes there is a “heavy emphasis on “tonal principles,” approached via the twin routes of chords and scales.”<sup>39</sup> Elaborating on this conclusion the study finds a greater need for material dedicated to a variety of areas, with rhythm as a focal point.<sup>40</sup> Robbins and Witmer state:

Even more disquieting is the paucity of information and ideas concerning rhythm, given that most jazz musicians, scholars, and critics consider the rhythmic

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<sup>37</sup> Robert Zwick, *Jazz Improvisation: A Recommended Format of Sequential Instruction* (PhD Diss, North Texas State University, 1987), vii.

<sup>38</sup> *Ibid*, 420.

<sup>39</sup> James Robbins and Robert Witmer, “A Historical and Critical Survey of Recent Pedagogical Materials for the Teaching and Learning of Jazz,” *Bulletin of the Council for Research in Music* 96, (Spring 1988), 23.

<sup>40</sup> *Ibid*, 24-25.

features and ‘peculiarities’ of jazz to lie at its very heart...it is surprising how few books have been specifically devoted to the area of jazz rhythm.<sup>41</sup>

Additionally, Robbins and Witmer also assert that when rhythm is discussed there is both deficiencies in how students are prompted to listen to, and assess, time feel and rhythm, and exercises are often presented as a series of notated rhythms of varying lengths to be performed isorhythmically, or as composites, over standard song forms and meters.<sup>42</sup>

A more recent addition to jazz methods not included in the previously mentioned studies, but worthy of note, is Jerry Bergonzi’s *Inside Improvisation Series* (1998). The fourth volume of this series, titled “Melodic Rhythms,” is solely focused on the development and expansion of rhythmic vocabulary. In the introduction for this volume Bergonzi writes:

Time and rhythm are king! Number one! We are constantly made aware of this fact when we are playing or listening to improvised music. All notes seem to sound good when they are played with “good time.” Even melodies that use “wrong” notes or notes that aren’t in the chord seem to sound good when played with good time. And so it is that “good” notes played with mediocre time sound only mediocre at best.<sup>43</sup>

This premise creates an intriguing approach as it places the emphasis on rhythm rather than harmony. One implication from this is that a student does not have to have a vast harmonic knowledge in order to create strong rhythms and be comfortable improvising, but rather can have a limited melodic and harmonic vocabulary while focusing on creating and utilizing strong rhythms in order to sound good. To accomplish this Bergonzi presents thirty-three varying concepts that are dedicated to expanding rhythmic

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<sup>41</sup> Ibid, 22, 25.

<sup>42</sup> Robbins and Witmer, “A Historical and Critical Survey,” 12-13, 24-25.

<sup>43</sup> Jerry Bergonzi, *Inside Improvisation, vol. 4: Melodic Rhythms* (Rottenburg: Advance Music, 1998), 8.

vocabulary that range from simple exercises of limiting the amount of notes per bar to advanced exercises addressing polyrhythms and rhythmic sequences. Though Bergonzi can be lauded for his attempt to place more emphasis on the improvement of rhythm, when critically assessing his method it can be found that this resource does not as much fill noted deficiencies from the aforementioned studies, but rather expands on earlier ideas while sharing similar weaknesses. Specifically, a majority of the text presents notated exercises that are executed isorhythmically, or as composite rhythms, through standard song forms and play-a-longs in predominantly common time. This is best illustrated in Bergonzi's inclusion of twenty-two notated one-bar rhythms (a focal point of his method) that can be inserted at any point in a song form. He expands on this concept by demonstrating, through notation, how the rhythms can be displaced by an eighth note to generate increasing rhythmic interest. Though most of the text is focused on implementing notated exercises into standard song forms, Bergonzi does address more esoteric ideas that lend themselves to self-exploration by the student. However, these concepts are only briefly addressed and sparsely demonstrated to the point it may be difficult for students to have a clear understanding of the concepts, or to truly begin to internalize the advanced rhythmic concepts.

### **“Jazz Rhythm”**

A recurring trend in jazz research is studies dedicated to more clearly defining “jazz rhythm.” This can be seen in works by Rose (1989), Collier and Collier (1994, 1997, 2002), Friberg and Sundstrom (1997, 2002), Belfiglio (2008), Weselowski (2012), and perhaps best articulated in Dave Liebman's instructional DVD *Understanding Jazz Rhythm: the concept of swing* (1997). However, in all these instances the idea of “jazz



rhythm” is very misleading in the respect that it narrows jazz rhythm to be synonymous with “swing.” More specifically, these resources deal mainly with analyzing the placement and timing of eighth notes in jazz performance by assigning swing ratios and asynchronities that describe the effect the listener perceives as “swing.” Though this research offers insight into creating and defining a swing feel, which is often viewed as the defining characteristic of jazz, outside of the Liebman DVD few, if any, offer exercises to aid in the development and improvement of playing with good time and feel. Rather, the studies utilize measurements from specific sets of data that are either isolated to a single performer, or group of performers, to attempt to empirically demonstrate and define “swing.”

### **Effect of Culture on Rhythm**

Paul Berliner’s *Thinking in Jazz* (1994) is a monumental work that explores the holistic process of becoming a jazz musician through a detailed ethnographic survey of the jazz culture. His writing is broken down into four parts: (a) Initial Preparations for Jazz, (b) Cultivating the Soloist’s Skills, (c) Collective Aspects of Improvisation, and (d) Additional Factors Effecting Improvisation and Epilogue.

Within the section addressing the cultivation of necessary skills, Berliner discusses at length the importance of rhythm. He states:

The performer’s rhythmic conception can produce phrases whose melodic content is secondary, but it also forms the underpinning of successful melodic excursions. Praised for their swing, effective improvisations are “natural, flowing, uncontrived, and spontaneous”; they display strong rhythmic momentum, “rhythmic elasticity, bounce, and vitality.” These essential aesthetic qualities are the product of a combination of the rhythmic elements that make up improvised figures, the manner in which the figures are articulated, their placement within the

piece's metric scheme, and their relationships to the surrounding figures of other band members.<sup>44</sup>

Berliner continues his discussion of rhythm by addressing the West African influence on jazz rhythm, specifically citing the rhythmic counterpoint created through the layering of varying parts, often performed in different, contrasting meters.<sup>45</sup> This discussion elaborates on how African and African-American cultures feel the rhythm more on the backbeat (beats two and four) versus the downbeats (beats one and three). This affects the placement of notes in relation to the divisive beat. He illustrates this idea of flexibility and elasticity of the beat by presenting it as an elliptical figure that has an attack envelope that allows performers to be on the beat, behind the beat, or ahead of the beat.<sup>46</sup> With this, the beat becomes a flexible entity that can be subdivided in any number of ways. This transitions into the importance of polymetric and polyrhythmic “inventions” that allow the performer to divide the beat symmetrically or asymmetrically in various groupings.<sup>47</sup>

Regarding polyrhythms/polymeter, Berliner states:

In its most basic form, polymetric invention creates a recurring cycle of rhythmic counterpoint. Within the same time span, the basic beats of different meters cross over one another, creating syncopation and temporarily increasing the music's rhythmic instability and tension. They then coincide with one another, resolving the tension. This relationship is simply a springboard to further exploration on the part of improvisers who grasp its implications [...] By adopting the conceptual framework of a superimposed meter, musicians gain a set of theoretical reference points, which they can continue to subdivided in different ways, then subdivide again, creating an ever expanding “rhythm tree.”<sup>48</sup>

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<sup>44</sup> Paul F. Berliner, *Thinking in Jazz* (Chicago: The University of Chicago Press, 1994), 147.

<sup>45</sup> *Ibid*, 147-48.

<sup>46</sup> *Ibid*, 151.

<sup>47</sup> *Ibid*, 153.

<sup>48</sup> *Ibid*, 153.

In his discussion of rhythm he also alludes to the importance of manifesting the beat through movement, and goes on to discuss the role clapping and tapping exercises play in developing the ability to internalize rhythms and feel, as well as discussing the role of dancing in African and African-American musical cultures.<sup>49</sup>

Though Berliner's discussion of exercises for the improvement of rhythm and feel is limited to brief second hand accounts, his writing demonstrates the importance culture has on the development of jazz rhythm, and in doing so addresses numerous implications for continued pedagogy. From his observations gathered through an immersion in the jazz culture he demonstrates the importance and need for continued research into; (a) the African influence on jazz rhythm and its inclusion in rhythm pedagogy, (b) utilizing movement and kinesthetics in learning and internalizing rhythm, and (c) the importance of polyrhythm and polymeter in generating rhythmic interest in improvisation.

### **African Music and the African Influence on Jazz**

It is largely agreed upon the many of the rhythmic devices present in jazz are in some way connected to the indigenous music of West Africa. With this, there has been varying degrees of attention paid to the African influence on jazz – Schuller offers a moderately detailed section in his *Early Jazz* (1968); Ted Gioia, in his *History of Jazz* (1997), spends ample time reviewing the slave trade and its effect on the development of jazz in the New World, as well as the precursors of blues and ragtime; and Kaufman and Gaukin's 1979 *The African Influence on Jazz* was, at the time, considered a seminal work on the topic, offering detailed analysis of African musical devices and their relationship to jazz through extensive field work. For the scope of this study it is not necessary to

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<sup>49</sup> Berliner, *Thinking in Jazz*, 152-54.

review them all; however, two works became important in guiding the research for this project.

First was Jason Squinobal's dissertation *West African Music in the Music of Art Blakey, Yusef Lateef, and Randy Weston*. Mr. Squinobal offers an ethnomusicological study of "the cultural, social and musical influences that have led to the use of West African music in the compositions and performances"<sup>50</sup> of the mentioned artists. In doing this, he offers detailed information on West African culture and musical devices that have been deemed influential to the development of jazz. Additionally, his musical analysis contains both implicit and explicit examples of the use of West African musical traditions in jazz performance, though limited to the named performers that are the focus of the study. Finally, and arguably most useful in aiding in this project, was his comprehensive literature review. He offers brief overviews and criticisms of works relating both to African music and its relation to jazz, as well as numerous pieces of jazz scholarship spanning most of the second half of the twentieth century. Included are seminal works by Jones, Locke, Nketia, Chernoff, Agawu, Goffin, Waterman, Schuller, Collier, Porter, Southern, Berliner, and Baker.

The second critical source was Kofi Agawu's *Representing African Music: Postcolonial Notes, Queries, Positions*. Agawu is primarily concerned with how Western scholarship has influenced the perception of African music, especially noting how early analysis and scholarship often serve to over-complicate the music in unproductive

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<sup>50</sup> Jason Squinobal, *West African Music in the Music of Art Blakey, Yusef Lateef, and Randy Weston* (Ph.D. Diss., University of Pittsburgh, 2009), vi.

ways.<sup>51</sup> In his discussion he offers criticism of many seminal works dealing with African music, most notably A.M. Jones' *Study in African Music* (1959), as well as contesting many ways in which African music has been dissected and analyzed. This becomes important for two reasons: (1) Much of the early scholarship dealing with the relationship between jazz and West African music was based off the work of Jones; understanding how research has evolved since then allows more accurate analysis of West African music, as well as its influence on jazz. Secondly, (2) contesting how the characteristics of West African music have been interpreted and analyzed can provide a broader view of the topic(s) that will allow a clearer application to jazz and popular music.

### **Conclusions**

Though rhythm is often cited as one of the defining characteristics of jazz it is under represented in formal methods and pedagogy, while ample attention is given to the development of harmonic concepts. Additionally, academic research investigating “jazz rhythm” is almost exclusively focused on characterizing and defining swing, with little attention given to other rhythmic concepts that lend interest to the music. The preceding survey of materials dedicated to jazz rhythm demonstrates that, though rhythm is often presented as the most important element in jazz, there is still a need to further emphasize exercises and strategies that target the improvement of rhythm in formal jazz pedagogy.

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<sup>51</sup> Kofi Agawu, *Representing African Music: Postcolonial Notes, Queries, Positions* (New York: Routledge, 2003), 74.

## CHAPTER III

### METHODOLOGY

The procedures for this study were arranged into three parts. First, information was collected through the survey of (a) materials and techniques relating to African musical traditions focusing on the transmission of rhythmic elements, (b) a brief survey and analysis of rhythmic devices common to jazz and how they were/are influenced by African music, and, where applicable (c) notated excerpts of solos from master improvisers that serve to reinforce rhythmic concepts being addressed in this document or that demonstrate concepts that exercises can be derived from. Secondly, the research was organized and synthesized to find elements deemed either crucial to the successful learning and retention of rhythmic concepts, or techniques that demonstrate creativity in their use and conception of rhythm. Finally, exercises were developed and/or adapted based on the findings.

The materials and techniques given consideration for this study were selected based on their relevance in the fields of African music and jazz improvisation and pedagogy. Improvised solos, or passages from solos, were selected based on their use of rhythm and relevancy in reinforcing concepts being addressed. The solos (or passages) were then transcribed and analyzed. From the synthesis and analysis of selected materials covering African music and its relation to jazz rhythm, pedagogical techniques, and

devices found in improvised solos, exercises were developed that focus on the learning and retention of rhythmic devices that will allow students to better utilize rhythm as a creative tool, while also reinforcing the improvement and refinement of time and feel.

## CHAPTER IV

### RHYTHM IN JAZZ

#### **The African Roots**

In his survey of African music (mostly through dissecting the work of A.M. Jones) Gunther Schuller comes to the simple conclusion, “African music is unquestionably the world’s most complex music.”<sup>52</sup> This conclusion is largely derived from the critical analysis of rhythmic characteristics of the music. Through the layering of multiple parts, each demonstrating unique rhythmic characteristics, complex rhythmic counterpoints and patterns are created that, at cursory listening and/or viewing, are seemingly impossible to comprehend. However, if we begin to not only dissect the music itself, but also the process in which the music is learned and conceptualized, certain characteristics and devices begin to emerge that will influence the later discussion of deriving exercises for improvisation from African rhythmic systems.

Before beginning a technical overview of characteristics of African music, it is important to address certain limitations and criticisms that exist when discussing African music. In his book *Representing African Music: Postcolonial Notes, Queries, Positions*, Kofi Agawu argues that “African rhythm” is largely an invention of ethnomusicologists and researchers, both Western and African, whom through their studies often rely on broad generalities and unsubstantiated claims to further mystify and differentiate African

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<sup>52</sup> Schuller, *Early Jazz*, 10.



music.<sup>53</sup> These generalities are most frequently manifested in claims that all African music places rhythm as the central element in musical systems. More specifically, that the complexity of African rhythm is something that is engrained in African persons from birth, and largely cannot be learned or assimilated by outsiders; this, as Agawu argues, is a common fallacy in narratives surrounding African music.<sup>54</sup> Agawu continues his argument by pointing out inherent flaws in research that has been conducted, namely that many ethnomusicologists had taken a passive, observer role in research, and that if they would have been more proactive in engaging and talking with subjects, many of the myths that are perpetuated in their work could have been dispelled.<sup>55</sup>

Another key point in Agawu's criticism is the use of Western notation to illustrate African rhythmic concepts. Many seminal works relating to African music (Jones, 1959; Brandel, 1961; Chernoff, 1979; Kaufman and Guckin; 1979) acknowledge the perceived shortcomings of using Western notation while still utilizing it. Surprisingly, Agawu condones the use of Western notation, noting that is it necessary to do so to continue to validate the music in academia and formal scholarship.<sup>56</sup> However, he cautions that many notated examples of African music add to the complexity and mystification by presenting the music in often unclear, or overly complex manners. Of Jones' seminal work, *Studies in African Music*, he states:

A cursory glance at the second volume of *Studies in African Music* confirms the complexity of African rhythmic systems. A sometimes rapid succession of

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<sup>53</sup> Kofi Agawu, *Representing African Music: Postcolonial Notes, Queries, Positions* (New York: Routledge, 2003), 55.

<sup>54</sup> Ibid, 55.

<sup>55</sup> Ibid, 63.

<sup>56</sup> Ibid, 66.

meters, staggered barlines tracing crooked paths from the top to the bottom of the texture, and unusual groupings of notes together with other features make it difficult to find the conductor's beat that would unlock the secrets of African drum ensemble playing [...] The graphic severity and unwieldiness of his transcriptions would seem to confirm the essential difference, the otherness, perhaps even the exoticism of African music [...] By shunning regularity and isochrony, Jones encourages fantastic views about Africans dancing with their whole bodies, each body part performing a different rhythm in a different meter.<sup>57</sup>

To paraphrase one of Agawu's overarching points: though the music is complex, it is often presented in a manner that adds unnecessary complexity to continue the mystification of African music.

In the scope of this study the preceding points were brought up to highlight the following points: (1) It will help to continue to help dispel the notion that rhythmic ability is an engrained trait and cannot be learned, (2) it validates the use of Western notation for the duration of the text, and (3) by putting "complex" rhythmic concepts into simpler forms and structures that are commonly found in jazz and other popular music, that it will perhaps promote focusing more on similarities present in all music rather than perceived differences.

The following section will introduce concepts and constructive devices that are common amongst the ensemble music of West Africa – the region that, today, includes Dahomey, Togo, Nigeria, and Ghana. The section is in no way a comprehensive overview of the music of West Africa, but rather is limited to a discussion of ideas and concepts that will influence the later section dedicated to the development of exercises utilizing West African rhythmic systems in jazz and other improvisationally based musics.

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<sup>57</sup> Ibid, 67.

## Music in Society

A major pitfall of viewing African music from an outside perspective is that we as westerners tend to isolate musical elements from the role they may be serving in a larger structure. Chernoff writes, “The difficulty westerners have in bridging the gap in cultural sensibilities about rhythm is often paralleled by an ethnocentric inability to attribute complexity to, or even to recognize, the more intellectual aspects of an alien culture’s expressions.”<sup>58</sup> To begin to understand the West African musical tradition it is crucial to realize that music in West Africa encompasses all aspects of society and is not viewed as a separate entity, but rather a connecting force for all aspects of daily life. Gunther Schuller articulates this idea:

African native music and early American jazz both originate in a total vision of life, in which music, unlike the “art music” of Europe, is not a separate, autonomous social domain. African music [...] is conditioned by the same stimuli that animate not only African philosophy and religion, but the entire social structure.<sup>59</sup>

Chernoff states, in regards to the societal role of music in Africa:

The fact that most people in Africa do not conceive of music apart from its community setting and cultural context means that the aesthetics of the music, the way it works to establish a framework for communal integrity, offers a superb approach to understanding Africans’ attitudes about what their relationship to each other is and should be [...] Africans use music and the other arts to articulate and objectify their philosophical and moral systems, systems which they do not abstract but which they build into the music-making situation itself, systems which we can understand if we make an effort.<sup>60</sup>

Understanding the importance music has in West African society is vital to gaining a better understanding of how the music is learned and conceptualized, especially the

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<sup>58</sup> John Miller Chernoff, *African Rhythm and African Sensibility: Aesthetics and Social Action in African Musical Idioms* (Chicago: The University of Chicago Press, 1979), 74.

<sup>59</sup> Schuller, *Early Jazz*, 4.

<sup>60</sup> Chernoff, *African Rhythm and African Sensibility*, 36-7.

strong reliance upon group interaction and part interdependence to successfully execute rhythmic elements.

The social nature of music in West Africa has a considerable effect on how the music is learned and reinforced throughout life. Matthew Montfort briefly summarizes the process:

The African mother sings to her child in syllable imitative of drum rhythms. When he is of sufficient age, he learns to imitate these rhythms by rote. Children are given toy drums upon which to tap out rhythms, often as soon as they can control their arms. In African languages, proper rhythmic phrasing and accentuation are essential to meaning, and children's songs and games display an advanced rhythmic character. A young boy may sit beside his father at musical events, tapping out rhythms on the side of a drum as his father plays on the drum head. Adolescents play minor roles in adult ensembles, and as they become more proficient their roles may expand. The organization of music within the society encourages musicians to acquire musical knowledge in slow stages through participation in social and musical activities.<sup>61</sup>

Two major points can be gleaned from this summary: first is the entrenched focus on rhythm, even from infancy. Jones notes, "We have to grasp the fact that if from childhood you are brought up to regard beating three against two as being just as normal as beating in synchrony, then you develop a two-dimensional attitude to rhythm which we in the West do not share."<sup>62</sup> This idea often serves to perpetuate the idea of an engrained metronomical sense of rhythm and time that many West African musicians seem to possess. Arguably though, it more strongly implies the ability to learn and internalize increasingly complex rhythmic ideas through exposure and a systematic process. Secondly, it reinforces the importance of the communal nature of West African music

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<sup>61</sup> Matthew Montfort, *Ancient traditions--future possibilities: rhythmic training through the traditions of African, Bali, and India* (Phoenix: Panoramic Press, 1985), 12.

<sup>62</sup> A.M. Jones, *Studies in African Music* (Oxford: Oxford University Press, 1959), 102.

while beginning to infer the importance of interaction and part interdependence to successfully execute rhythmic concepts.

This idea of social interaction and cooperation extends to most facets of West African life, and frequently, common daily activities possess rhythmic elements. To illustrate this point Chernoff relates the following anecdote:

Rhythms are built into the way people relate to each other. When women pound cooked yams, the woman who turns the yam while her friends are rhythmically smashing them with heavy wooden poles converses most amiably, as if the safety of her fingers were of no concern. Obviously she does not have to try very hard to maintain a simple rhythm, and she counts on her friends to be just as steady.<sup>63</sup>

Nketia relates how music is used to accompany work:

In this society, a player of the one-string fiddle and a rattle player accompany teams of men who cut grass. As they play, the workers swing their cutlasses in a concerted manner to the rhythms of their music, causing the slashing sounds of the blades to fall regularly on the main beats. This has a remarkable effect on the speed as well as the efficiency of grass cutting, for rhythmic movements that are properly organized on some regular basis appear to be less fatiguing than movements in which exertion and release of effort do not form an ordered sequence.<sup>64</sup>

This idea can also be seen in the songs of early slaves in the United States, who would use music to coordinate their work efforts.<sup>65</sup> In West African ensemble music, this cooperative sense is necessary to successfully perform the intricate ensemble music.

In the earlier quote from Jones he alludes to a “two-dimensional attitude” towards rhythm. Additionally, in his text Montfort discusses being able to listen for two rhythms at once – or rather developing a bi-rhythmic sense.<sup>66</sup> What this refers to is the commonly

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<sup>63</sup> Chernoff, *African Rhythm and African Sensibility*, 94.

<sup>64</sup> J.H. Kwabena Nketia, *The Music of Africa* (New York: W.W. Norton & Company, Inc., 1974), 28-9.

<sup>65</sup> Schuller, *Early Jazz*, 17-18.

<sup>66</sup> Montfort, *Ancient traditions--future possibilities*, 11.

held idea of the importance of polymeter (which will be discussed in greater detail in a subsequent section) in the construction of West African music. However, in performing indigenous music, West African performers are not focusing on conceptualizing and internalizing two conflicting meters, but rather focusing on how their part fits into the greater texture. With this, the performers of West African music do not necessarily listen for multiple meters, or polymetric textures, but rather for how their part fits into the whole. By first focusing on their individual entrances (which are often drastically staggered and independent), performers work to gain confidence in their abilities.<sup>67</sup> This idea of focusing on the individual part has become referred to as “apart-playing.”<sup>68</sup> However, independent parts may make little sense, or lack much semblance of beat or pulse; only through the combined rhythms of the ensemble does the music emerge.<sup>69</sup> The dynamic relationships between independent parts help to define the meter and rhythm of the whole. On a base level, one part defines another.<sup>70</sup> With this, in regards to learning how to listen and internalize, it is not as important to gain a “bi-rhythmic” sense, but rather an ability to always be hearing and internalizing the various resultant rhythms being created to know how an individual part interacts within a broader texture. Montfort articulates why gaining this ability is an important task for modern musicians in any genre:

[This] interdependence between players in the ensemble requires an advanced set of rhythmic skills. With the growing use of polyrhythms in modern music,

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<sup>67</sup> Chernoff, *African Rhythm and African Sensibility*, 47.

<sup>68</sup> *Ibid*, 47.

<sup>69</sup> *Ibid*, 51.

<sup>70</sup> *Ibid*, 52.

ensemble skills are of paramount importance to today's musician. Through studying African rhythm, contemporary musicians may acquire the ensemble-oriented rhythmic ability that generations of West African musicians have developed.<sup>71</sup>

This concept will be elaborated upon further in the following sections.

### Dance

Strongly correlated to the societal and communal role of music is the function dance provides in West African cultures. Dance is used as an artistic and social communication device that can be used to: articulate personal beliefs, demonstrate friendship or hostilities, pay tribute to village elders or the deceased, as well as affirming social statuses. Additionally, and perhaps more importantly, dance is often the reason for creating music. With this, music and dance have a symbiotic relationship in West African culture; music provides structure and organization for dance - a scene for dance - while dance can often influence the more nuanced aspects of the music – phrase lengths, accent patterns, rhythmic density, and total duration. Jones relates the importance of dance in West African music making:

The norm of African music is the full ensemble of the dance: all other forms of music are secondary. If an African wants to explain his music to the outsider, it is the full dance which he will take as his example. If the drums are beating but there is no signing or dancing Africans will think 'there is nothing happening': so too, if there is music and the performers 'really mean business' it is essential to have the full ensemble. This consists of the instruments of the orchestra, the hand clapping, the song, *and* the dance. All these four ingredients combine to form the central act of African music-making, the equivalent of our Western symphonies.<sup>72</sup>

Music is largely structured with dance in mind, or can be adapted to fit dance.

Often times phrase length, or rather the length of repeated patterns, and how often they

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<sup>71</sup> Montfort, *Ancient traditions--future possibilities*, 12.

<sup>72</sup> Jones, *Studies in African Music*, 51.

are repeated are influenced by the accompanying dance – good dancers will lead to new layers, which demonstrate increasing complexity, while expanding phrase lengths and the total number of repetitions.<sup>73</sup> This complexity lends itself to more creative dancing, and fosters greater interaction amongst musicians and dancers. Nketia states, “When the music consists of only a few basic ideas or phrases which are repeated over and over again, the dancer who is interested in contrasts will have very little to fall back on except his own imagination.”<sup>74</sup> Conversely, bad dancers will limit the scope in which musicians expand textures, and frequently lead to songs being cut short. This sense of interaction and influence between musicians and dancers serves to reinforce the communal nature of African music.

The aesthetics that guide West African music are the same that guide dancers; “In the African context, performance in music and dance responds ultimately to a single aesthetic concern, the realization of community, and “moral edification and entertainment, excitement and decorum.”<sup>75</sup> With this, the dances that accompany music can be viewed as an addition to the polyrhythmic textures that are present in African ensemble music, not a separate event. Dancers first strive to properly articulate the main, regulative beats, and once comfortable begin a more conversational approach that further defines cross rhythms, or possibly adds new subdivisions to the texture. In his seminal article on West African dance, “An Aesthetic of the Cool: West African Dance,” Robert F. Thompson states:

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<sup>73</sup> Nketia, *The Music of Africa*, 215.

<sup>74</sup> *Ibid*, 214.

<sup>75</sup> Chernoff, *African Rhythm and African Sensibility*, 149.



[Ensembles] essentially uses dancers as further voices in a polymetric choir. The conversation is additive, cool in its expression of community. The balance struck between meters and the bodily orchestration seems to communicate a soothing wholeness rather than a “hot” specialization. . . Dialogues in apart performing [and in] call-and-response [is] a means of putting innovation and tradition, invention and imitation, into amicable relationships with one another.<sup>76</sup>

In West African music, dancing gives the rhythmic structures a visible and physical form.<sup>77</sup> This idea provides a “choreographic component”<sup>78</sup> to ensemble music that is imperative when dissecting and analyzing how the music is constructed - the importance of this choreographic component will be elaborated upon in following sections.

### Bell Patterns

Common to most West African dance music is a prominently articulated, recurring rhythmic pattern that serves as the foundational material for a given dance.<sup>79</sup> Commonly referred to as bell patterns<sup>80</sup>, this short rhythmic figure – generally a single metric cycle (or bar) – is presented as an ostinato figure throughout a composition that serves as a temporal reference for all other parts and texture.<sup>81</sup> Originally, bell patterns were unique to various cultures and dances, but through greater interethnic contact on the African continent many have become decentralized and are now utilized by a variety of

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<sup>76</sup> Robert Farris Thompson, “An Aesthetic of the Cool: West African Dance,” *African Forum* 2, no. 2 (Fall 1966), 98. Quoted in Chernoff, *African Rhythm and African Sensibility*, 149.

<sup>77</sup> Chernoff, *African Rhythm and African Sensibility*, 143.

<sup>78</sup> Agawu, *Representing African Music*, 94.

<sup>79</sup> Ibid, 73.

<sup>80</sup> In many scholarly works related to West African music, bell patterns will also frequently be referred to as time lines or *topos* (plural, *topoi*).

<sup>81</sup> Agawu, *Representing African Music*, 73.

groups (though still demonstrating some regional variance).<sup>82</sup> Figure 4.1 shows eight bell patterns common in West African ensemble music.

1) Bell pattern typically found in southern Ewe dance music and a Yoruba variation.

Standard pattern

Yoruba pattern

Regulative beat

2) Time line associated with Kpanlogo dance.

Kpanlogo time line

Regulative beat

3) Time line commonly found in African Highlife music (popular music)

Highlife time line

Variation

Regulative beat

4) Time line of the Akan Adowa dance.

Adowa time line

Regulative beat

Figure 4.1. Eight common time lines in West African ensemble music.<sup>83</sup>

<sup>82</sup> Ibid, 73.

<sup>83</sup> Ibid, 75.

5) Time line of Gabada, a popular northern Ewe dance.

The notation for Gabada consists of three staves in 2/4 time. The top staff, labeled 'Gabada time line', features a melodic line with eighth and sixteenth notes. The middle staff, labeled 'Second bell pattern', shows a rhythmic pattern of quarter notes. The bottom staff, labeled 'Regulative beat/Main bell pattern', shows a simple quarter-note pulse.

6) Time line for Gahu, a popular southern Ewe dance.

The notation for Gahu consists of two staves in 4/4 time. The top staff, labeled 'Gahu time line', shows a melodic line with eighth and sixteenth notes. The bottom staff, labeled 'Regulative beat', shows a simple quarter-note pulse.

7) Time line of Mmensoun, elephant horn ensemble music of the Akan.

The notation for Mmensoun consists of two staves in 12/8 time. The top staff, labeled 'Mmensoun time line', shows a melodic line with eighth notes. The bottom staff, labeled 'Regulative beat', shows a simple quarter-note pulse.

8) Common time line.

The notation for the common time line consists of two staves in 2/4 time. The top staff, labeled 'Time line', shows a melodic line with eighth notes and rests. The bottom staff, labeled 'Regulative beat', shows a simple quarter-note pulse.

Figure 4.1. Eight common time lines in West African ensemble music (cont...) <sup>84</sup>

To better understand the importance of bell patterns, and how they are constructed, we will further dissect the first bell pattern from figure 4-1, a pattern associated with the Agbadza, Agbekor, and Adzida dances of the Southern Ewe (figure 4.2).

The notation for the bell pattern is a single staff in 12/8 time, labeled 'Bell'. It shows a melodic line with eighth notes and rests.

Figure 4.2. Bell pattern associated with Agbadza, Agbekor, and Adzida dances of Southern Ewe.

<sup>84</sup> Ibid, 75.

Though being in 12/8, the above bell pattern uses a mixture of subdivisions – in this instance 2 + 2 + 1 + 2 + 2 + 2 + 1 - to articulate its seven attack points. However, as will be discussed in later sections, assigning these values to linear constructs can distort the true feeling and relationship of the line in the greater texture, while obscuring any regulative pulse. Related to the importance of the bell pattern in providing temporal reference for ensembles is the accompanying dance. In the above section, dance was described as providing a choreographic component to West African ensemble music, frequently providing a regulative pulse to the polyrhythmic texture. In West African music “no one hears a [bell pattern] without also hearing – in actuality or imaginatively- the movement of the feet. And the movement of feet in turn registers directly or indirectly the metrical structure of the dance.”<sup>85</sup> By adding a regulative pulse (main beat) – four dotted quarter notes in 12/8 - to the above figure, we can get a better sense of the feel and structure of the pattern (figure 4.3).

The figure shows two staves of music in 12/8 time. The top staff, labeled 'Bell Pattern', contains seven notes with stems pointing upwards. The notes are positioned at the 1st, 3rd, 4th, 6th, 7th, 8th, and 10th eighth-note positions of the measure. The bottom staff, labeled 'Main beat', contains four dotted quarter notes with stems pointing downwards, positioned at the 1st, 4th, 7th, and 10th eighth-note positions. Both staves are enclosed in a large bracket on the left side, and the time signature '12/8' is written at the beginning of each staff.

Figure 4.3. Bell pattern with main beats

Of the seven attack points, only two (the first and sixth) coincide with main beats. The remaining attack points give the pattern an off-beat feel, with the final note serving as a strong anacrusis to a repetition of the pattern. This idea of suppressing the downbeat is

<sup>85</sup> Agawu, *Representing African Music*, 73.

commonly found in West African ensemble textures and, coupled with off-beat phrasing and staggered attack points throughout the ensemble, lends itself to giving the music a syncopated, self-propelling feeling.

### Polyrhythm and Polymeter

Jones states that, “Rhythm is to the African what harmony is to the Europeans, and it is in the complex interweaving of contrasting rhythmic patterns that he finds his greatest aesthetic satisfaction.”<sup>86</sup> Much of this interweaving and contrast is credited to the use of polymetric and polyrhythmic textures; Schuller, summarizing Jones, states, “African music, including the drumming, is wholly contrapuntal and basically conceived in terms of polymetric and polyrhythmic time relationships.”<sup>87</sup> The ideas of polyrhythm and polymeter have become a staple in the analysis of how West African music is organized and constructed, and are frequently used synonymously. However, in the scope of this discussion, a distinction must be made.

Polyrhythm is largely understood to be the use of two or more contrasting rhythms within a musical texture, over the same span of time. In West African music, this is commonly manifested in a 3:2 cross-rhythmic relationship that is the organizational foundation of a vast array of West African music.<sup>88</sup> Polyrhythmic structures, though more common in West African music, are not unheard of in European art music. The *ars subtilior* style common in fourteenth-century France is largely defined by its

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<sup>86</sup> A.M. Jones, “African Rhythm,” *Africa* 24 (1954), 24.

<sup>87</sup> Schuller, *Early Jazz*, 12.

<sup>88</sup> Eugene Novotney, *The 3:2 relationship as the foundation of timelines in West African musics* (D.M.A. Dissertation, University of Illinois at Urbana-Champaign, 1998).

polyrhythmic textures, and examples exist in the works of Haydn, Beethoven, Brahms, and in increasing frequency with twentieth-century composers, such as Stravinsky and Carter.<sup>89</sup> However, there is a vast difference between polyrhythm in Western art music and African music. Where as brief instances are used within Western art songs to create moments of rhythmic tension, West African music is largely structured around a high degree of repetition of polyrhythmic figures, often with increasing complexity upon each repetition, where the figures will hardly, if ever, align.

Polymeter, or mixed meter, is the simultaneous use of more than one meter in an ensemble texture. Agawu furthers, “Each functional component of the texture, be it an instrument or a group, is said to expose a distinct rhythmic pattern within its own metrical frame.”<sup>90</sup> Polymeter, perhaps more than polyrhythm, is cited as a defining feature of African music, and was frequently used to explain the rhythmic peculiarities of the music. In his 1953 article “The Techniques of Ewe Drumming and the Social Importance of Music in Africa,” S.D. Cudjoe gives his early impression of West African music: “The changing configuration of Ewe drumming is so well exploited by the greatest master-drummers that one gets the notion of a movable bar contracting or expanding in time signature according to the inspiration of the moment.”<sup>91</sup> This strong belief in polymeter has lead to transcribing and notating West African music in a manner that employs notating different voices in contrasting meters, or individual parts in constantly shifting meters. Chernoff states:

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<sup>89</sup> Agawu, *Representing African Music*, 81.

<sup>90</sup> Ibid, 79.

<sup>91</sup> S.D. Cudjoe, “The Techniques of Ewe Drumming and the Social Importance of Music in Africa,” *Phylon* 14 (1953), 288. Quoted in Chernoff, *African Rhythm and African Sensibility*, 47.

African music is often characterized as polymetric because, in contrast to Western music, African music cannot be notated without assigning different meters to the different instruments of an ensemble [...] if we try to apply Western notions of bars and time signatures, the music seems much more complicated than it really is.<sup>92</sup>

What Chernoff is inferring is that notating an entire piece (score) of West African music in a unified meter would over complicate the music, and that it is in fact better to use a polymetric approach as it better represents how the music is conceived. Example 4.4 is a reproduction of a *Nyayito* dance that originally appeared in Jones' *African Music*, and has since been reproduced in many works, including Schuller and Agawu. The figure represents how many West African works have been notated, and illustrates the use of polymeter as described above:

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<sup>92</sup> Chernoff, *African Rhythm and African Sensibility*, 45-7.

MASTER PATTERN A

The musical score consists of eight staves. Staves 1-3 are for Bell, Rattle, and Claps. Staff 4 is for Song, with lyrics: ku do, ha-lé ya he - ee, miawo to-ba-ha zu ma-ke ma - ke, ve-dziade dza de 'nyi me. Above the song line are parenthetical time signatures: (7/8), (2/4)(4/8)(6/8), (4/8)(2/4) (3/8), (6/8)(3/4), and (6/8)(3/4). Staves 5-8 are for Master drum and three Support drums. The lyrics GA KREBE KREBE, GA KREBE KREBE KI, KI - YA, KI - YA, KI - YA are placed above the drum staves. At the bottom right, the text KA - GAIJ KAGAIJ is written.

Figure 4.4. Excerpt from Southern Ewe funeral dance, “Nyayito,” as transcribed by A.M. Jones with parenthetical time signatures added by Agawu.<sup>93</sup>

Important to note in the above example is the varied use of time signatures – 12/8, 6/8, 5/8, 3/8, and, in the case of the Line 4 (“song”), a variety of shifting meters. Even with parts that are in a the same meter, such as lines 1, 2, and 3, bar lines do not necessarily coincide – as notated, line 3 begins its cycle on the third dotted quarter note of the previous layers. When the full ensemble is together in the final “measure,” there are at least four meters unfolding simultaneously.<sup>94</sup> With this, “[w]e are asked, in other words, to imagine a master drummer playing in 5/8 while the guy next to him plays in 6/8, and

<sup>93</sup> A.M. Jones, *Studies in African Music*, ii/12. Agawu, *Representing African Music*, 80.

<sup>94</sup> Agawu, *Representing African Music*, 79.



the one next to them in 3/8. Meanwhile the singer is in 6/8 or 3/4 while the bell and rattle are in 12/8 or 6/8.”<sup>95</sup> Schuller notes the complexity of viewing the music in this manner in his comments regarding his recreation of the same work (*Nyayito*):

Thus, out of a total of twenty-eight measures, vertical coincidence occurs only at five points. Another way of evaluating this remarkable feat is to realize that in a segment of music lasting only some six seconds, it is extremely difficult to avoid metric coincidence. When one remembers that this example of African music is improvised within a highly disciplined framework, one can only wonder at the connotation of “primitive” usually given to African music.<sup>96</sup>

A major reason why transcribing and notating West African music was approached in this manner was to place accented attacks in individual parts as a downbeat. What this does is illustrate metrical accents in separate layers, and allows for linear constructions of an individual voice that may make more sense when separated from the whole. Though this polymetric view of West African music had been a token analytical tool, certain issues arise that contest its use.

Firstly (and this will become a recurring point throughout following sections), by viewing West African music as polymetric the strong regulative pulse that is fundamental in dance music (which most music is used for in West African culture) is ignored. As discussed in the previous section, dance provides a choreographic component that cannot be viewed as separate from the ensemble; the accompanying dance generally provides the regulative pulse that influences the ensemble as a whole. Agawu articulates this point: “Strictly speaking, there is only one “rhythm of the dance”, all be it a compound “rhythm” expressed in a variety of internal articulations [...] [It] is more likely that these musics unfold within polyrhythmic matrices in single meters rather than in [...] “mixed”

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<sup>95</sup> Ibid, 79.

<sup>96</sup> Schuller, *Early Jazz*,

meters.”<sup>97</sup> Secondly, by viewing the music as polymetric, it implies that accents are metrical rather than phenomenal. Agawu elaborates on this:

Because meter and grouping are distinct, postulating a single meter in accordance with the dance allows phenomenal or contrametric accents to emerge against a steady background. Polymeter fails to convey the true accentual structure of African music insofar as it erases the essential tension between a firm and stable background and a fluid foreground.<sup>98</sup>

Basically, viewing textures as polymetric diminishes, or eliminates, the importance of accents that occur contrary to a regulative pulse. Viewing and conceptualizing the music in this manner would be to ignore the off-beat accentuation (syncopation) that characterizes a majority of West African and Afro-influenced music.<sup>99</sup>

By dismissing the idea of polymeter and embracing that West African music utilizes polyrhythmic textures that unfold over a regulative pulse and fixed metric structure, two main things are accomplished. First, it limits the complexity of West African music by placing everything in a single meter, which allows notational accuracy that lends itself to a better understanding of the relationships between parts, as well as the accent patterns that create off-beat phrasing and syncopation. This has largely been remedied in more modern scholarship, due in large part to the works of musicologist Dr. David Locke. In his dissertation, *The Music of Astiagbekor*, he states:

Every member of the performing group shares a commonly felt subjective beat; African rhythm is highly syncopated. By all means, patterns start at different moments, and yes, the opposition of rhythms is a desired effect, but these rhythmic events occur within an unchanging rhythmic framework present for all players [...] Since several streams of beats of different duration occur often simultaneously it is necessary to point out that one beat series is paramount, while other beat series occur in cross rhythm relationships to it.<sup>100</sup>

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<sup>97</sup> Ibid, 84.

<sup>98</sup> Agawu, *Representing African Music*, 84-5.

<sup>99</sup> *The Harvard Dictionary of Music*, s.v. “African Music.”

<sup>100</sup> David Locke, *The Music of Astiagbekor* (Ph.D. Diss., Wesleyan University, 1978), 307-22.

Figure 4.5 is a recreation of one of Locke's transcriptions that maintains a constant meter, allowing notational accuracy that better illustrates the true relationship between parts, versus a polymetric conception. In the figure, beaming reflects metric groupings – in all lines the final note or grouping serves as an anacrusis to the repeat. Brackets above a part indicate where the line's cycle begins and ends.

Gankogni repeat ad lib

1  
ko ko ko ko ko

Axatse

2  
pa pa-ti pa - ti - pa - ti - pa

Kagamu

3  
ka - ta ka - ta ka - ta ka - ta  
Begin

Kidi

4  
gi - di ki - di - gi - di ki - di

Sogo

5  
de de de

Lead

6  
de ge ge den to to

Figure 4.5. David Locke's transcription of a polyrhythmic texture from *Gahu*, a Southern Ewe dance.<sup>101</sup>

In studying this excerpt it is important to note that by maintaining a fixed meter, a vertical alignment is present that allows a truer depiction of the relationship between parts; it is easier to see, especially with bracketed parts, the prominence of off-beat

<sup>101</sup> David Locke, *Drum Gahu: The Rhythms of West African Drumming* (Crown Point: White Cliffs Media Co., 1987), 78.

entrances and attacks. In earlier transcriptions, the temptation would have been to assign contrasting meters to parts that placed beginnings of phrases and groupings as downbeats to new measures – imagine line 4 being presented as a bar of 3/8, followed by a bar of 4/8(2/4), ending with a measure of 2/16. The second reason why it is more practical to dismiss polymeter as an organizing tool is because by viewing the music within a strict meter it makes the concepts easier to apply to other musics that are presented in predominantly fixed meters.

### Cross-Rhythms versus Composite (Resultant) Rhythms

In analyzing West African music, cross-rhythm is another common device assigned to the indigenous rhythmic systems. Cross-rhythm is defined as a rhythm in which the regular pattern of accents of the prevailing meter is contradicted by a conflicting pattern, and not merely by a momentary displacement that leaves the prevailing meter fundamentally unchallenged.<sup>102</sup> This idea is a cornerstone of West African rhythmic systems, as evident in the commonality of the three-over-two relationship, and especially in regards to the prolonged use of cross-rhythmic and polyrhythmic textures that allow the music few or no points of vertical alignment.

Like polymeter, cross-rhythm is frequently used interchangeably with polyrhythm, and in conception is similar enough (if not virtually the same) that it is not necessarily inaccurate to do so; for all intents and purposes, all cross-rhythm is polyrhythm. With this, when discussing West African music the term cross-rhythm need not be used. Not only because polyrhythm already implies cross-rhythm, but also because the idea of cross-rhythm is arguably contrary to West African values and aesthetics. In

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<sup>102</sup> *The Harvard Dictionary of Music*, s.v. “Cross-rhythm.”

his 1997 book *African Music: Theoretical Content and Creative Continuum: The Culture-Exponent's Definitions*, Meki Nzewi provides a philosophical view against cross-rhythm:

[The term “cross rhythm”] is antithetical to African social and, therefore, ensemble philosophy. A community/family/team/[ensemble] does not work together at cross purposes. This musical structure [three quarter notes against two dotted quarter notes], which has depth essence, derives from the African philosophy of *interdependence* in human relationships.<sup>103</sup>

Instead of viewing separate parts or textures in the ensemble as working contrary to each other to create cross-rhythms, the relationships should be viewed as interdependent voices that create composite (or resultant) rhythms. To illustrate this point we will further dissect the common three-against-two rhythm (figure 4.6).

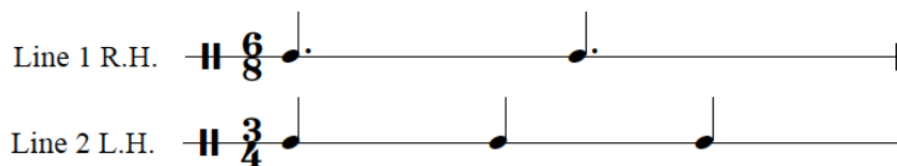


Figure 4.6. “Cross-rhythm”: Common three-against-two pattern (3:2)

The figure above shows the three-against-two cross-rhythm commonly found in West African music. The typical explanation of this figure has the right hand beating two beats while the left hand is simultaneously beating three beats in the same span of time. This explanation implies a sense of bi-metric organization, or polymeter - one part in 6/8 against one part in 3/4.<sup>104</sup> However, holding to the above arguments against polymeter and cross-rhythmic relationships, a better explanation is found in the resultant rhythm of

<sup>103</sup> Meki Nzewi, *African Music: Theoretical Content and Creative Continuum: The Culture-Exponent's Definitions* (Olderhausen: Institut für populärer Musik, 1997), 39.

<sup>104</sup> Agawu, *Representing African Music*, 92.

the simultaneous unfolding of the two lines. Instead of being two separate parts in two contrasting meters, the resultant rhythm created is manifested as a simple 6/8 (or 3/4) pattern (figure 4.7).



Figure 4.7. Resultant rhythm of figure 4.6

With this, the performer is not conceptualizing two contrasting rhythms (or performing simultaneously in 6/8 and 3/4), but rather executing a straightforward 6/8(3/4) rhythm. This same concept can be applied to bell patterns. Figure 4-8 takes the bell pattern with the main beat from the previous section and adds the resultant rhythm.

Bell pattern

Main beat

Resultant rhythm

Figure 4.8. Bell pattern with main beats and resultant rhythm

The implication of this is that West African musicians are infrequently, or never, conceptualizing the music in contrasting meters, but rather reliant on a keen awareness of how an individual part functions within the greater texture to create a resultant part. This awareness is predicated on a strongly developed ear, as well as an amplified sense of part interdependence.

### Additive versus Divisive Rhythm

Relating to the use of polymeter in constructing West African music is additive rhythm. In his writing Jones states that “the African approach to rhythm is largely additive, and so one is confronted with a series of rhythmic motifs of ever changing time length which can only be intelligibly set down in a series of bars of continually changing value.”<sup>105</sup> We saw this illustrated in figure 4.4, specifically in Line 4, “song.” The idea of additive constructs has become another cornerstone for how West African rhythmic systems are analyzed. Nketia states, “the use of additive rhythms in duple, triple, and hemiola patterns is the hallmark of rhythmic organization in African music”<sup>106</sup>; Schuller echoes Jones sentiment, “African rhythm is based on additive rather than divisive principles”<sup>107</sup>; and the concept was largely perpetuated in African ethnomusicology by Rose Brandel in her major study *The Music of Central Africa* (1961). However, more recent scholarship has begun to question the validity of viewing West African music as predominantly additive in conception.

The terms additive and divisive rhythm first appear in Carl Sachs’ *Rhythm and Tempo* (1953). In his writing Sachs describes divisive rhythm as being a regulatory pulse that can be evenly divided, while additive rhythms are generally presented as irregular groupings that are not confined to a steady division.<sup>108</sup> He summarizes the two concepts: “Divisive rhythm shows how the parts are meant to be disposed. It is regulative. Additive

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<sup>105</sup> Jones, *Studies in African Music*, i/8.

<sup>106</sup> Nketia, *The Music of Africa*, 131.

<sup>107</sup> Schuller, *Early Jazz*, 12.

<sup>108</sup> Carl Sachs, *Rhythm and Tempo: A Study in Music History* (New York: W.W. Norton & Co., 1953), 24-5.

rhythm shows how the parts are actually disposed. It is configurative.”<sup>109</sup> Agawu offers an elaboration on Sachs’ concepts:

...divisive rhythms [are] rhythms of the body, designed specifically for dance. Such rhythms came to dominate European music from the seventeenth century onward. Additive rhythms, on the other hand, are rhythms of speech. They originate in language and are subject to the asymmetrical periodicities of speech.<sup>110</sup>

Additive rhythms are generally manifested as irregular groupings within a standard meter, such as 4/4 (8/8) being divided as 3 + 3 + 2, or as bars of irregular meters being grouped together (Figure 4.1, 2).

1. Notation implying syncopation = "divisive" conception



2. Notation showing hemiolic content = "additive" concept



Figure 4.9. Rose Brandel’s demonstration of “two ways of notating the same [Mangbetu song]”<sup>111</sup>

The above figure (4.9) illustrates the difference between two notations of the same melody. The first notation shows a divisive construct - the example maintains a

<sup>109</sup> Ibid, 25.

<sup>110</sup> Agawu, *Representing African Music*, 87.

<sup>111</sup> Rose Brandel, *The Music of Central Africa: An Ethnomusicological Study* (The Hague: Martinus Nijhoff, 1966), 74. Agawu, *Representing African Music*, 87.



constant meter (3/4), and shown accents are phenomenal accents that occur largely on off (or weak) beats, giving the melody a syncopated feel. The second is an additive notation, with constantly shifting meters and bar lines that place the accented notes from the divisive example on the downbeats of new measures (metrical accents). The second example is how Jones states African music is constructed, and, in her studies and analysis, Brandel prefers this construction as she feels it is “truer to the [African] conception.”<sup>112</sup> With this emphasis on an additive process, Brandel also rejects the idea that West African music is syncopated. She states:

African hemiola rhythms could be misinterpreted as being syncopated. Should a notation within a symmetric context showing a basic undercurrent of regular beats be utilized, the stressed offbeat would make its appearance [...] The subsuming of an independent, asymmetric line under a “counter” line of regularity, however, would be a falsification of the rhythmic intent of the music.<sup>113</sup>

With this statement, Brandel completely discounts any divisive or regulative structure in favor of an additive process, which completely disregards the syncopated nature of the music. Even at the time of publication, her claims were largely unsubstantiated, and more recent scholarship has only further discredited her assertions.<sup>114</sup>

Figure 4.10 simplifies the additive versus divisive conceptions, showing a common 3 + 3 + 2 pattern notated two different ways.

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<sup>112</sup> Rose Brandel, *The Music of Central Africa*, 74.

<sup>113</sup> Ibid, 74.

<sup>114</sup> Agawu, *Representing African Music*, 87.



Figure 4.10. Two different notations of a common rhythmic figure<sup>115</sup>

Of this example, Agawu states:

Although the difference between the two ways of notating this rhythm may seem small, they stem from fundamentally different conceptions. Those who wish to convey a sense of the pattern's background, and who understand the surface morphology in relation to a regular subsurface articulation, will prefer the divisive format. Those who imagine the addition of three, then three, then two sixteenth notes will treat the well-formedness of 3+3+2 as fortuitous, a product of grouping rather than of metrical structure. They will be tempted to deny that African music has a bona fide metrical structure because of its frequent departures from a normative grouping structure.<sup>116</sup>

These two figures serve to illustrate the problem of viewing West African music as predominantly additive: the dismissal of a steady background pulse (or notational implication of a regulative pulse) leads to a diminished importance on the off-beat entrances and attacks which aid in creating syncopation and resultant rhythms. Similar to the discussion of polymeter, viewing separate parts as different additive constructs layered on each other only serves to distort the true relationships created within ensembles. This can also be seen in the recreation of Jones' transcription.

As mentioned earlier, a clear downbeat is often suppressed in ensemble parts, which makes it difficult, if not at times impossible, to identify the divisive structure of the music; however, clarity of a regulated pulse is frequently offered through the

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<sup>115</sup> Ibid, 88.

<sup>116</sup> Ibid, 88.

accompanying dance or other choreographic components of ensemble performances (such as clapping).<sup>117</sup> This choreographic component had been frequently neglected in early transcriptions of West African ensemble music, which lead to many transcriptions being void of a divisive structure (whether it is a constant meter or metric cycle), or assigning the regulative pulse its own additive construct. With this void, it becomes easier to claim an additive process is used to build separate parts and layers in West African ensemble music. Though, in doing so, one would have to largely ignore or dismiss the greater relationships that are present. Unfortunately, this was a commonly held view that perpetuated and inflated the importance of additive construction in West African ensemble music.

Though this section has brought into question the use of additive constructs when analyzing or creating West African music, the idea can still serve a practical function. If we revisit Sachs' definition of the terms divisive and additive, focusing on the "regulative" and "configurative" aspects, we can infer our own conclusions about African music that will relate to later exercises: West African ensemble music is divisive, while incorporating some additive properties. To elaborate on this, it is best to view divisive rhythms as a regular pulse or metric cycle, while viewing additive constructs as a way to define attack points within a metric cycle or relating to the divisive pulse. This idea is confirmed in Eugene Novotney's dissertation *The Three Against Two Relationship as the Foundation of Timelines in West African Musics* (1998). He states, "The African rhythmic structure [...] is a divisive structure and not an additive one [...] the standard patterns represent a series of attack points [...], not a series of durational values."<sup>118</sup> This

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<sup>117</sup> Agawu, *Representing African Music*, 88.

<sup>118</sup> Novotney, *The 3:2 Relationship*, 158.

idea directly correlates to the development of syncopation in jazz and will be illustrated later.

### Role of the Master Drummer

West African drum ensembles are typically comprised of two layers of performers: secondary drummers who “are those who usually fill in the music with persistent contrasting rhythms or those who underline the basic beats or provide the ‘ground’ of the music,”<sup>119</sup> and master drummers. Master drummers are some of the most well respected performers of traditional African music, and their primary role is as de facto leaders of ensembles, providing direction to the secondary musicians as well as cues for accompanying dancers. Locke states, “the principal function of the leading drum are 1) playing traditional rhythms of a musical type; and 2) playing rhythms which provide choreographic signals for the dancers.”<sup>120</sup>

Beyond their role as leaders of the group, master drummers are responsible for generating the solo (melodic) line in drum ensembles. While the secondary drummers are providing the basis for the music, master drummers improvise a solo part on top of the texture that, at times, may coincide with the accompaniment, but is frequently creating greater rhythmic tension and variety.<sup>121</sup> Locke states, “The lead drummer balances static and dynamic musical elements: he plays phrases appropriate to the piece and improvises upon them in stylistically acceptable ways.”<sup>122</sup> Additionally:

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<sup>119</sup> J.H. Kwabena Nketia, *Drumming in Akan Communities of Ghana* (Univeristy of Ghana by T. Nelson, 1963), 153.

<sup>120</sup> Locke, *The Music of Astiagboko*, 318.

<sup>121</sup> Squinobal, *West African Music*, 293.

<sup>122</sup> Locke, *Drum Gahu*, 75.

The music of the lead drum has a melodic quality; the timbral/tonal contrast between successive strokes and the contour of relative pitches within a phrase are integral to the lead drummer's art [...] Besides their concern for the timbre and tone of drum strokes, lead drummers obviously give careful attention to the timing of strokes. Although timing might seem to be primarily a matter of attack—the moment a stroke is made—the duration of a tone is also carefully controlled.<sup>123</sup>

It is important to understand that these improvisations incorporate very specific patterns and musical language that, though perceived by outsiders as another abstract layer contributing to the rhythmic complexity, possess specific meaning in West African culture.<sup>124</sup>

### Summary

Though West African music is often presented as a complex system of intertwining rhythms that create dense layers of seemingly contrasting parts, working at odds to somehow create cohesive ensemble music, the reality is that the music has been frequently mis-analyzed and assigned terms that only serve to perpetuate the complex perception of the music and add to its mystification. However, West African ensemble music, though more rhythmically complex than most Western art music, is conceived in familiar terms that are utilized in unique ways to create a distinctive rhythmic system. From the above discussion we can conclude that West African music is: (1) completely divisive in nature, though additive concepts can be used to define attack points, (2) in ensemble parts, clear downbeats are often suppressed and a high degree of off-beat attacks and displaced entrances are utilized, (3) the music is not polymetric, but is rather the unfolding of multiple polyrhythmic textures over a single, regulative pulse, and (4)

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<sup>123</sup> Locke, *Drum Gahu*, 73.

<sup>124</sup> Locke, *Drum Gahu*, 7.

that the music relies upon an amplified sense of part interdependence to be successfully performed.

### **Acculturation**

Musicologists and historians have largely established the significant relationship between the early development of jazz and its connection to West African music, especially noting the rhythmic correlations. It is largely understood that many of the definitive rhythmic characteristics of jazz – repetition, polyrhythm, syncopation, and beat democratization (creating equality in all beats through accenting weak beats or de-emphasizing strong beats) – are derived from the West African musical traditions. These concepts have remained integral stylistic aspects of jazz because of the resilience and preservation of West African traditions. However, when these concepts are utilized in jazz they become mostly unrecognizable as African. Gunther Schuller notes:

We have been certain for many years that jazz inflection and syncopation did not come from European “art music.” [...] the syncopation of jazz is no more than an idiomatic corruption, a flattened-out mutation of what was once the true polyrhythmic character of African music.<sup>125</sup>

What Schuller is referring to is the result of an amalgamation of West African and European musical elements that would lay the framework for what would become jazz.

Between 1451 and 1870 nearly ten million slaves were brought to the New World from West Africa – mostly from the region that, today, would constitute Dahomey, Togo, Nigeria, and Ghana.<sup>126</sup> Though music plays a prominent role in many tribes and societies throughout the African continent, West Africa is well known for its highly stylized

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<sup>125</sup> Schuller, *Early Jazz*, 13-15.

<sup>126</sup> Frederick Kaufman and John P. Guckin, *The African Roots of Jazz* (Alfred Publishing Co., Inc., 1979), 4-5.

rhythmic drumming. This strong drumming tradition, coupled with the exclusively oral/aural tradition in which the musical traditions are passed on, allowed the West African transplants to maintain many aspects of their musical heritage after being forcibly taken from their homeland.<sup>127</sup> However, as the slaves and their musical traditions were further exposed to, and integrated into Western (European) musical systems and styles, the musics began to combine to create new sounds.

The combining of characteristics from varying cultures into a new form is commonly referred to as acculturation. In their 1936 article for *American Anthropologist*, Redfield, Linton, and Herskovits offer a definition of acculturation as “[t]hose phenomena which result when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original cultural patterns of either or both groups.”<sup>128</sup> In the case of the development of jazz, the West African musical traditions brought with the slaves – especially the highly rhythmic nature of their music - combined with aspects of Western melodic and harmonic constructs, as well as forms, lead to the precursors of jazz. However, acculturation is not a guaranteed process. Musicologist Alan P. Merriam states, in regards to the successful blending of cultural characteristics:

In respect to Western influences, the probability of acculturation is enhanced by structural factors in the two musical systems themselves. It has been postulated that when the structures in two systems are similar, the potential for blending is much greater than when the structures are dissimilar, and that exchange of ideas thus will be frequent in the first instance, infrequent in the second.<sup>129</sup>

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<sup>127</sup> Ted Gioia, *The History of Jazz* (New York: Oxford University Press, 1997), 7.

<sup>128</sup> Robert Redfield, Ralph Linton and Melville J. Herskovits, “Memorandum for the Study of Acculturation,” *American Anthropologist* vol. 38 no. 1 (1936), 149.

<sup>129</sup> Alan P. Merriam, “Music in American Culture,” *American Anthropologist* Vol. 57, No. 6, (1955), 80.

This concept is elaborated on by George List in his article “Acculturation and Musical Tradition” appearing in the *Journal of the International Folk Music Council*:

I shall term a fourth level of acculturation "hybridization." This level is the most fruitful musically. When two musics of great vitality meet and mingle, producing a recognizably new and equally vital musical style or genre, the full process of hybridization has been effected. For the creation of such a new idiom it is not only necessary that the music of the subordinate culture have enormous vitality but that the dominant culture show a reasonably tolerant attitude towards this music. To produce such a synthesis it is also required that the two musical styles in question have sufficient elements in common that fusion is facilitated. Such likenesses in musical elements of course also facilitate tolerance upon the part of the dominant culture of the musical style of the subordinate.<sup>130</sup>

With this, we can view the creation of jazz and its precursors not as a fortuitous event, but rather a result of the compatibility of West African and European musical traditions and their merging through sustained exposure. List continues:

African and European music, on the other hand, exhibit certain common features which facilitate cross-fertilization. Both, for example, possess polyphony which utilizes the harmonic intervals of the third and fifth and their inversions. When large numbers of African Negroes were brought to the New World the basis thus existed for an amalgamation of musical styles. The further necessary factor, tolerance upon the part of the dominant European culture for the music of the subordinate culture, also existed in the United States. The result was the development of a new and exhilarating musical form, jazz. Jazz, practised by Negro and white alike, has captured the imagination of the world and is, with fortunate or unfortunate results, now engaged in impressing itself upon the world's musical styles. At its inception jazz showed clear evidence of Ameroeuropean antecedents. The cakewalk exhibits obvious structural and melodic elements derived from the Western military march. In the blues the African elements perhaps dominate. In its later development jazz became an art form as illustrated by the works of George Gershwin.<sup>131</sup>

The tolerance referred to by List, which is a crucial factor in acculturation and was necessary for the successful blending of West African and European music elements, was

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<sup>130</sup> George List, “Acculturation and Musical Tradition,” *Journal of the International Folk Music Council* vol. 16 (1964), 20.

<sup>131</sup> *Ibid*, 20.



one of the major reasons New Orleans plays a critical role in the development of jazz.

Though slaves were spread throughout the entire New World, the diversity and tolerance found in New Orleans created an atmosphere that fostered the development of what would become jazz. Because New Orleans alternated between French and Spanish rule, before eventually being acquired by the United States in the Louisiana Purchase of 1803, immigrants from these European countries played a decisive role in shaping the atmosphere of the city.<sup>132</sup> Additionally, the black population of the city was more diverse than other colonized areas of the New World with large slave populations. Civil unrest on the island of Hispaniola (now Haiti and the Dominican Republic) in the early nineteenth century lead to an influx of immigrants from the island country that brought with them influences from Latin culture; many slaves being brought to New Orleans were first filtered through the Caribbean.<sup>133</sup> The resulting mixture of European, African, Caribbean, and American elements made New Orleans one of the most diverse and tolerant environments in the nineteenth century. And nothing, perhaps, illustrates the tolerant attitude of the city better than the 1817 decision to establish a designated place for slaves to perform their indigenous music and dance - Congo Square.<sup>134</sup>

The tolerant attitude was also largely reflected in the religious climate of the city. New Orleans, with its strong Latin and Spanish influence, was predominantly Catholic. Though the Catholic Church itself is mired with a history of discrimination and intolerance, in the New World they were far more accepting of the eccentric social

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<sup>132</sup> Gioia, *The History of Jazz*, 6.

<sup>133</sup> *Ibid*, 7.

<sup>134</sup> *Ibid*, 7.

mixing that was prevalent in New Orleans.<sup>135</sup> Ted Gioia states, “[p]ut simply, the music and dances of Congo Square would not have been allowed in the more anglicanized colonies of the Americas.”<sup>136</sup> In these more anglicanized colonies, African musical traditions were being largely discouraged, if not explicitly suppressed.<sup>137</sup> Gioia provides examples of the varying levels in which African music and culture were attacked:

During the Stono Rebellion of 1739, drums had been used to signal an attack on the white population. Anxious to prevent further uprisings, South Carolina banned any use of drums by slaves. The Georgia slave code went even further in prohibiting not only drums, but also horns or loud instruments. Religious organizations also participated in the attempt to control the African elements of the slaves’ music. The *Hymns and Spiritual Songs* of Dr. Isaac Watts, published in various colonial editions beginning in the early 1700s, was frequently used as a way of “converting” African Americans to more edifying examples of Western music.<sup>138</sup>

However, as Gioia later points out, this desire to suppress and limit African musical traditions would often have the opposite effect:

European idioms were transformed and enriched by the African tradition on which they were grafted [...] This ability of African performance arts to transform the European tradition of composition while assimilating some of its elements is perhaps the most striking and powerful evolutionary force in the history of modern music.<sup>139</sup>

Though Gioia describes the process as a “powerful evolutionary force,” he is simply referring to the process of acculturation that, once the European and West African traditions were given the opportunity to coexist, was arguably a foregone conclusion.

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<sup>135</sup> Ibid, 6.

<sup>136</sup> Ibid, 6.

<sup>137</sup> Ibid, 7.

<sup>138</sup> Ibid, 7.

<sup>139</sup> Ibid, 7-8.

## Manifestation of African Rhythmic Elements in Modern Jazz

### Syncopation

Syncopation, in its simplest form, is a disturbance or interruption to the regular flow of rhythm, generally manifested as a stressed or accented note where it would not normally occur.<sup>140</sup> Syncopation has become a cornerstone of jazz rhythm and is largely agreed to be derived from West African musical traditions. Hal Galper states, “It was the African invention of syncopation that transformed western music into jazz. It was a rhythmic innovation [...] Syncopation is the life-blood of the music.”<sup>141</sup> Schuller asserts:

[...]the syncopation of jazz is no more than an idiomatic corruption, a flattened-out mutation of what was once the true polyrhythmic character of African music[...]The African slave’s adjustment to the white man’s music consisted precisely of translating these polymetric and polyrhythmic points of emphasis into the monometric and monorhythmic structure of European music. Syncopation, preceding or following the main beats, was the American Negro’s only workable compromise.<sup>142</sup>

Schuller continues:

Syncopation is the most direct way a musician has of emphasizing weak beats, other than outright accentuation. By transforming his natural gift for against-the-beat accentuation into syncopation, the Negro was able to accomplish three things: he reconfirmed the supremacy of rhythm in the hierarchy of musical elements; he found a way of retaining the equality or “democratization” of rhythmic impulses; and by combining these two features with his need to conceive all rhythms as “rhythmicized melodies,” he maintained a basic, internally self-propelling continuum in his music.<sup>143</sup>

Schuller alludes to two key points that will be addressed in greater detail in subsequent sections: “democratization” of rhythmic impulses and a self-propelling continuum in the

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<sup>140</sup> *The Harvard Dictionary of Music*, s.v. “Syncopation.”

<sup>141</sup> Hal Galper, *Forward motion: from Bach to BeBop* (Petaluma: Sher Music Co., 2005), 58.

<sup>142</sup> Schuller, *Early Jazz*, 15.

<sup>143</sup> *Ibid*, 16.

music.

In dissecting the relationship between how syncopation is used and manifested in modern jazz and its relation to West African music, the jazz precursor of ragtime best illustrates the correlation, and arguably serves as a bridge connecting the two traditions. In his writing, Schuller emphasizes the importance of the 3 + 3 + 2 pattern both in West African music and its pervasiveness in ragtime (this pattern will be discussed further in later sections); he specifically sights five variations of the pattern, which are all present in Scott Joplin's *Maple Leaf Rag* (figure 4.11).<sup>144</sup>



Figure 4.11. Variations of 3 + 3 + 2 pattern in *Maple Leaf Rag*<sup>145</sup>

By placing emphasis on the 3 + 3 + 2 pattern in ragtime, Schuller is applying the previously discussed concept of using additive constructs to define attack points against a regulative pulse, which creates syncopation. In support of syncopation in ragtime and early jazz being similar to West African rhythms, Kaufmann and Gaukin assert, “At the turn of [the twentieth] century, ragtime rhythmic patterns as found in tunes like *The Entertainer* by Scott Joplin (figure 4-12) still showed a strong resemblance to African cross rhythms.”<sup>146</sup>

<sup>144</sup> Schuller, *Early Jazz*, 24.

<sup>145</sup> Ibid, 24.

<sup>146</sup> Kaufman and Gaukin, *African Roots of Jazz*, 92.



Figure 4.12. *The Entertainer*, by Scott Joplin

The syncopation in ragtime, and numerous instances in modern jazz, are very overt examples of the off-beat accentuations and entrances that have come to typify how syncopation is often conceived in western music – figures that emphasize or stress off-beats. However, syncopation can be manifested in more subtle ways that are closely aligned to what Schuller refers to (and is referenced in his above quotes) as the West African idea of equality or “democratization” of the beat.

#### Democratization of the Beat

Schuller, in his 1968 *Early Jazz*, first introduced the idea of beat democratization; along with “swing,” he identifies it as one of the main characteristics that separates jazz from Western art music.<sup>147</sup> Since then, it has become a common term related to the rhythmic propensities of both West African music and jazz. Schuller explains the idea:

By “democratization” of rhythmic values, I mean very simply that in jazz so-called weak beats (or weak parts of rhythmic units) are *not* underplayed as in “classical” music. Instead they are brought up to the level of the strong beat. The jazz musician does this not only by maintaining an equality of dynamics among “weak” and “strong” elements, but also by preserving the full sonority of notes.<sup>148</sup>

<sup>147</sup> Schuller, *Early Jazz*, 6.

<sup>148</sup> *Ibid*, 7-8.

In West African ensemble music, the concept of beat democratization is inherent. Given the emphasis on offbeat attacks and entrances, coupled with independent parts starting at various points within a polyrhythmic texture, an equality of beat is unavoidable. So much so that (as mentioned above) strong off-beat entrances are often mischaracterized as downbeats. In the development of jazz, the idea of beat democratization was continued, but on a more base level.

Arguably, the most common manifestation of beat democratization in jazz has been emphasizing beats two and four (in 4/4 time), versus the heavy emphasis of one and three present in much of western classical music. This metric emphasis on beats two and four helps to create a propelling sense to the music that contributes to the “swing” feel.

Berliner states:

In many African American musical genres, the accents of the drummer’s hi-hat cymbal, together with the audience’s complementary handclapping and finger snapping, reinforce patterns that fall on the backbeats and intensify the backbeat’s pull away from the strong beats. This, in turn, maximizes the force of the subsequent *swing* back toward the strong beats.<sup>149</sup>

This rhythmic emphasis on beats two and four, coupled with harmonic shifts on one and/or three, create an equality of beat in the music. Beyond this base manifestation, which has been present throughout much of the history of jazz, the increasing importance of the eighth note (that was largely spurred in the be-bop movement of the 1940s) lead to beat democratization at a smaller subdivision.

In his research, Schuller postulates that in West African music the performers are feeling the eighth note as the basic rhythmic unit, and that the prevalence of eighth note lines that emerged in the be-bop era is a direct extension of West African music. He states:

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<sup>149</sup> Berliner, *Thinking in Jazz*, 148-9.

[...] it is possible to say that [African musicians] either thinks in eighth notes or, if he is momentarily thinking in quarter notes, is capable of feeling the eighth-note subdivision just as strongly at any given moment in his music. This fact, of course, leads to the interesting speculation whether the penchant in “modern jazz” to feel the eighth note as a basic time unit is in any way related to African music. It is certainly clear by now that one of Charlie Parker’s most enduring innovations was precisely this splitting of the four beats in a bar into eight [...]. Once again, the fact that no comparable trend has developed in European “art music” lends support to this theory.<sup>150</sup>

This idea of feeling the eighth note as the basic rhythmic unit is also supported by the idea of the density referent, introduced by Nketia in his book *The Music of Africa*.<sup>151</sup>

Density referent can simply be viewed as the smallest possible subdivision present in the music; often in West African music, this will be the eighth note. By always feeling this subdivision, as Schuller theorizes, West African musicians are able to generate or place many of their musical gestures based off of the eighth note pulse, including polyrhythms. Figure 4.13 illustrates a four-over-three polyrhythm based off attack points within twelve eighth notes.

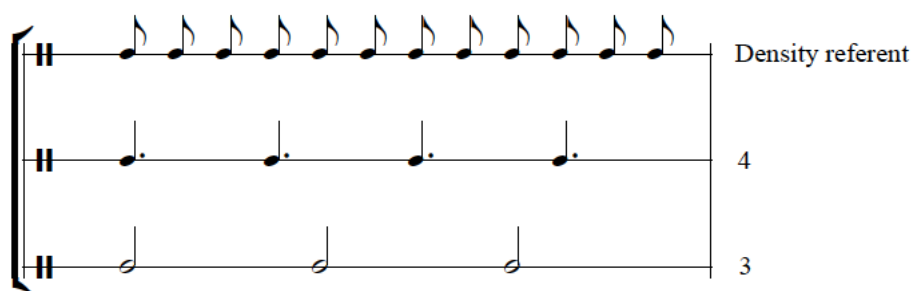


Figure 4.13. 4:3 polyrhythm based off density referent of eighth notes

<sup>150</sup> Schuller, *Early Jazz*, 25.

<sup>151</sup> J.H. Kwabena Nketia, *The Music of Africa* (New York: W.W. Northon & Company, Inc., 1974), 127.

Additionally, complicated textures with high degrees of accents and “unpredictable” attack points are often the same pattern being executed by different performers, displaced to start at varying points within the texture based off of the eighth note. Kaufmann and Gaukin noted “[i]n some cases the basic pattern was started by one group [...] and picked up by another group on the 1<sup>st</sup>, 2<sup>nd</sup>, or 3<sup>rd</sup> beat of the middle of the first rhythmic phrase” (figure 4.15).<sup>152</sup>



Figure 4.15. Rhythmic pattern displaced by eighth note<sup>153</sup>

The emergence of the eighth note line in jazz, paired with maintaining the democratization of the beat, lead to a natural tendency for performers to accent the upbeats – a technique that is commonly referred to as “back accenting” (or “back tonguing”). Figure 4.16 illustrates this concept.



Figure 4.16: Sonny Rollins' improvisation on “Almost Like Being in Love” (1949)

Though this concept is present in most periods throughout the development of jazz, it is most prevalent in the be-bop and post-bop eras of the 1940s and 1950s.

<sup>152</sup> Kaufmann and Gaukin, *African Roots of Jazz*, 90.

<sup>153</sup> *Ibid*, 91.



## “Swing”

Swing is one of the most frequently cited defining qualities of jazz, yet proves to be the most elusive concept to explain. Louis Armstrong perhaps best embodies a common attitude towards swing in his famous quote, “if you have to ask, you’ll never know.”<sup>154</sup> Arguably, a variety of factors influence what creates swing, and how swing is perceived is largely subjective, being based on the listeners understanding and experience. With this, swing can be viewed, analyzed, and understood in a variety of ways – how does the placement of accents in longer phrases contribute to swing? Does phrase length itself influence swing? Is swing mostly an interpretation of smaller subdivisions? What consideration should tempo be given in understanding swing? While all of these questions are merited, the following section will focus mainly on the interpretation of subdivision, and factors related to this, to better understand a commonly held view of “swing.”

In his dissertation *Fundamental Rhythmic Characteristics of Improvised Straight-Ahead Jazz*, Anthony Belfiglio identifies, through analysis of a broad array of jazz pedagogy resources, 12 characteristics that he finds are commonly identified as contributing to “swing”: beat, rhythmic accuracy, democratization of the beat, relaxed-flowing-effortless quality, forward motion, rhythmic variety, idiomatic articulation, polyrhythm, phrasing flexibility, tension and release, interpretation of subdivision, and interpretation of beat placement.<sup>155</sup> In discussing how swing relates to West African rhythmic elements, of the aforementioned 12 characteristics, beat, democratization of the

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<sup>154</sup> Richard J. Lawn and Jeffrey L. Hellmer, *Jazz: Theory and Practice* (Belmont, CS: Wadsworth Publishing Company, 1993), 153.

<sup>155</sup> Anthony Belfiglio, *Fundamental Rhythmic Characteristics of Improvised Straight-Ahead Jazz* (D.M.A. Diss., University of Texas at Austin, 2008), 7.

beat, polyrhythm, and interpretation of subdivision are perhaps the most important elements.

Beat can simply be viewed as the underlying pulse of music that provides a temporal reference for both audience and performers.<sup>156</sup> Similar to West African ensemble music, jazz music that “swings” possesses a consistent, regulative pulse that is referential to how additional parts are perceived to be placed in the metric context of a piece. Beat democratization, as discussed in the previous section, is simply emphasizing weak beats to bring them to level of strong beats. Beat placement refers to where rhythmic figures are placed in relation to the beat, and greatly influences rhythmic accuracy. This is one point where jazz differs from its West African antecedents. In West African ensemble music, accurate beat placement is imperative in order to maintain proper feel, as well as facilitate rhythmic accuracy; often times, if a single performer is either early or late (ahead or behind the beat) by even a minute margin, a piece can lose its rhythmic integrity. However, jazz possesses a far more acceptable range of where performers can place figures in relation to the underlying pulse. Benward and Wildman describe this concept:

A beat can either be wide or narrow. For example, although each beat occurs as a “point” in time, try to envision the difference between the “point” made by an ultrafine-line pen and a magic marker. The ultrafine-line pen demonstrates the center of the beat, while the magic marker widens the possibilities, allowing a loose, swinging, personal approach to time on many structural levels. A wide-beat concept is not just a haphazard reaction, however; it is idiomatic to the jazz style.<sup>157</sup>

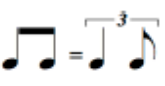
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<sup>156</sup> *The Harvard Dictionary of Music*, s.v. “Beat.”

<sup>157</sup> Bruce Benward and Joan Wildman, *Jazz improvisation in theory and practice* (Dubuque, IA: Wm C. Brown Publishers, 1984), 127.

Though jazz is perceived of having more flexibility in beat placement, the challenge for jazz musicians is to not allow this flexibility to turn into rhythmic ambiguity. Paul Berliner states that musicians “must strive to develop an unwavering sense of beat to serve as the conceptual anchor for the flexible use of their [rhythmic] vocabulary.”<sup>158</sup> By developing a strong sense of time, musicians will gain the ability to alter beat placement based on style, mood, or personal preference, without slipping into rhythmic ambiguity. This can lead to more idiomatically authentic performances. Finally, interpretation of the subdivision is another crucial element in creating swing, and one that has been frequently scrutinized in recent jazz scholarship.

Studies by Rose, Collier, and Friberg and Sundström have been dedicated to analyzing the timing of various aspects of swing feel, largely focusing on identifying rhythmic ratios between how performers execute down beats to upbeats – timings commonly referred to as swing ratios. Swing ratios are measurements dealing with how performers interpret the subdivision in eighth note figures and lines to create a swing feel.

Commonly, swing is defined (or shown) as , which utilizes a triplet subdivision and creates a 2:1 swing ratio. In his book *What to listen for in jazz*, Kernfeld offers a description about the importance of the triplet subdivision in creating swing:

The essential qualities of a simple swing rhythm can be summarized by Lester Young’s concise definition, the rhythmic phrase “tinkety boom.” Simple swing should meet three criteria:

1. Some beats are explicitly divided into three parts (tin ke ty).
2. The first and third parts receive emphasis (TIN ke TY).
3. The third part sounds as if it were connected more to the following beat than its own (TIN ke TY-BOOM) and thus pushes the rhythm forward.<sup>159</sup>

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<sup>158</sup> Berliner, *Thinking in Jazz*, 150.

<sup>159</sup> Barry Kernfeld, *What to Listen for in Jazz* (New Haven: Yale University Press, 1997), 14.

This manifestation of a triplet feel in creating swing is also an important link to the West African tradition. By utilizing a triplet feel as opposed to straight eighth notes, jazz musicians are creating a polyrhythmic relationship of three-over-two (3:2) on nearly every beat, which arguably lends to the self-propelling and buoyant feeling of the music, while still seeming relaxed and effortless. Of this phenomenon, Charli Persip, drummer for Tadd Dameron and Dizzy Gillespie, says:

See, the triplet feeling in the rhythm, ‘dah-dah-dah, dah-dah-dah,’ makes you relax. It makes you hold back; you can’t rush triplets. But the duple part of the rhythm is like marches, ‘one and two and’ or ‘one and two and three and four and.’ That kind of division of time makes you move ahead, forge ahead, march – ‘boom, boom, boom, boom.’ That’s the push of the rhythm. And that’s why it is so nice when you combine those two feelings. Then you get a complete rhythm that marches and still relaxes.<sup>160</sup>

To paraphrase Schuller, the swing feel of jazz can largely be viewed as a compromise of true West African polyrhythmic texture adapted to fit in the rhythmic confines of jazz.<sup>161</sup> However, studies have shown that there is a broad spectrum of swing ratios employed in jazz performance, that fall on a spectrum between 1:1 and 3:1, often based on tempo, feel, and personal style. At medium tempos (tempos between 120 and 180 bpm), swing ratios of between 1.5:1 and 1.8:1 were found to be most common in instrumental soloists, whereas when tempos increase to 200+ bpm, the swing ratio gravitates closer to 1:1- a straight feel.<sup>162</sup> Though these studies and measurements offer insight into how swing is perceived and generated, they offer little practicality in application. Though by approaching swing as a triplet feel, and understanding how that

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<sup>160</sup> Berliner, *Thinking in Jazz*, 153.

<sup>161</sup> Schuller, *Early Jazz*, 15.

<sup>162</sup> Belfiglio, *Fundamental Characteristics*, 61.

relates to a polyrhythmic conception, performers can work to gain flexibility within this framework to gain comfort with the aforementioned rhythmic aspects that contribute to “swing.”

### Polyrhythm

As discussed in the previous section, the swing feel that often defines jazz can be viewed as polyrhythmic - a 3:2 relationship created on nearly every beat which lends to a self propelling and buoyant feeling in the music. If we were to hold to this view, it is very much in line with the prolonged use of polyrhythmic textures that is a staple of West African ensemble music. Beyond its relationship to swing, polyrhythm is arguably more present in drum textures as a way to create rhythmic tension and release behind soloists. Figure 4.x is a polyrhythmic figure commonly used by Elvin Jones that exploits a displaced quarter note triplet incorporated into a typical swing pattern (figure 4.17).

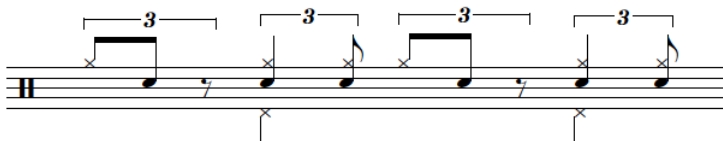


Figure 4-17: Polyrhythmic figure commonly used by Elvin Jones<sup>163</sup>

Figures, such as the one above, are more easily executed on drum-set because of the ability to perform multiple layers at one. This also allows for a more prolonged use of polyrhythmic textures that closely resembles West African ensemble textures. However, the way polyrhythm is characteristically used by single line instruments is often more

<sup>163</sup> <http://jonmccaslinjazzdrummer.blogspot.com/2009/12/elvin-jones-independence-exercises.html> (accessed 19 December 2015)

similar to the Western (classical) conception – the brief use of a contrasting rhythmic strand to create rhythmic tension. This is frequently accomplished through the use of triplets.

Tuplets can be used to create polyrhythms over a smaller time span, which in turn creates brief moments of rhythmic tension and release. Most frequently triplets will be used, though any polyrhythmic relationship can be utilized (3:2, 4:3, 5:2, 5:4, 7:4, etc...). With the prevalence of the eighth note in improvised lines, triplets can be used briefly to break up the monotony of eighth note lines (figure 4.18), or can be strung together to create longer passages that create a higher degree of rhythmic tension (figures 4.19 and 4.20).



Figure 4.18. Charlie Parker's improvisation on "Confirmation" (1946)



Example 4.19. Joe Henderson's improvisation on "Straight Ahead" (1964)



Example 4.20. Sonny Rollins' improvisation on "Moritat" (1957)

Interestingly, in figure 4.19, due to the accent pattern being exploited by Henderson, a three-over-four polyrhythm is being created over each measure, while still utilizing triplets to create rhythmic variety and tension.

### Rhythmic Repetition

Rhythmic repetition has become an essential element of jazz that musicologists believe is directly correlated to the West African antecedents of the music.<sup>164</sup> Gridley and Rave state:

Another trait of jazz that should be noted is its extensive use of short-pattern repetition. Though it is found in some passages of formal European concert pieces, such repetition is not nearly as prominent in European practice as it is in African and jazz practice. The left hand figures used by boogie-woogie pianists – which clearly parallel the African use of the ostinato – provide a good illustration of this, as do also the jazz drummer’s “ride rhythms.” These practices point back to the African music’s masterful use of repetition as a way of building and sustaining excitement.<sup>165</sup>

In the above discussion of West African ensemble music, the bell pattern was cited as being a short, repeated figure that served as the metric and rhythmic foundation of the music, while providing a temporal reference for other textures within the ensemble. This concept has been preserved in jazz in two ways: (1) through the use of rhythmic repetition as an organizing principle in the music, and by (2) retaining rhythmic figures that are commonly found in West African music. One of the simplest manifestations of this would be the repeated figure commonly performed on the ride cymbal that has become known as a “ride pattern” (figure 4.21).

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<sup>164</sup> Mark C. Gridley, *Jazz Styles: History and analysis* (Englewoods Cliff, NJ: Prentice Hall, 1988), 48.

<sup>165</sup> Mark C. Gridley and Wallace Rave, “Towards Identification of African Traits in Early Jazz” *The Black Perspective in Music* Vol. 12, No. 1 (Spring 1984), 54.



Figure 4.21. Typical “ride” pattern

Frequently this pattern will be accompanied by a figure in the bass that is comprised entirely of quarter notes (“walking” bass line); this can be viewed as akin to the regulative pulse that is often found in the dance or clapping or West African ensemble music. Combined, these two repeated figures (with occasional variances) provide the rhythmic and metric foundation for a majority of jazz works (figure 4.22).

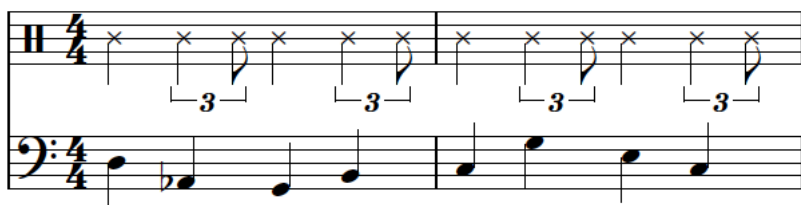


Figure 4.22. Ride pattern with walking bass line

Discussed above was Schuller’s observation of the importance of the 3+3+2 pattern in West African music, and how this figure and its variations were frequently employed in ragtime. These examples demonstrate the importance of irregular ground patterns in both West African music and its influence on the development of jazz. The above examples show this pattern at the sixteenth note level, however, the figure is frequently presented in the underlying eighth note pulse as well. This 3+3+2 pattern is commonly known as the *tresillo* (figure 4.23), and is regularly found in African and jazz music, as well as many styles of Afro-influenced music.





Figure 4.23. Tresillo figure

The *tresillo* figure is commonly integrated into Western music because of the ease in which it can be placed into a 4/4 bar. As discussed above, this figure greatly influenced the development of syncopation as a cornerstone of jazz, and is one of the clearest examples of West African rhythmic patterns being retained in modern jazz. Schuller says of this, and similar rhythms found in African music:

It is probably safe to say that by and large the simpler African rhythmic patterns survived in jazz [...] because they could be adapted more readily to European rhythmic conceptions. Some survived, others were discarded as the Europeanization progressed. It may also account for the fact that patterns such as [the tresillo have] remained one of the most useful and common syncopated patterns in jazz.<sup>166</sup>

In addition to simpler West African rhythmic patterns being retained in modern jazz, there are examples of more complicated elements being used to connect the music to its African roots. Arguably, Art Blakey was a pioneering figure in incorporating source material from West African music. This was largely spurred by the time he spent in Africa in the late 1940s. Musicologist Burt Korall states:

As early as the latter years of the 1940s, he began looking into African and Latin root sources, absorbing rhythms and techniques essential to the two intersecting musical streams. His interest in techniques of Latin and African derivation progressively became a factor in his playing... Blakey had a flair for juggling a variety of musical elements and making them collectively work for him. His Tom-Tom playing, the way he used his elbow to change a drum's sound, and his timbale and cow bell techniques, as applied to jazz, all grew out of his burgeoning

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<sup>166</sup> Schuller, *Early Jazz*, 18.

Afro-Latin interests.<sup>167</sup>

The use of specific African musical elements in Blakey's music is perhaps most explicit on his 1962 album *African Beat*. The album incorporates elements from traditional African music and modern jazz in order to illustrate the common roots of both. A prime example of the use of African material can be found on Blakey's recording of the Guy Warren composition "Mystery of Love." Blakey uses a variation of a bell pattern common in Ewe and Yoruba dance ensembles (figure 4.24).



Figure 4.24. Art Blakey's time line on "Mystery of Love"

This pattern can be viewed as an altered orientation of the Yoruba variation of the bell pattern shown in figure 4.1.

Largely due to the efforts and contributions of Blakey, West African rhythmic elements continue to serve as organizing tools in jazz and improvised music, and have arguably been at the forefront of more progressive movements in jazz for the last 30 years. Notable is the M-Base collective that emerged in the mid 1980s, and that is continued today under the guidance of saxophonist Steve Coleman. The collective was formed by a group of African-American musicians who "consciously conceived of their efforts as contributing to a deep heritage of black American, improvisatory music that

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<sup>167</sup> Burt Korall, *Drummin' Men - The Heartbeat of Jazz: the BeBop Years* (Oxford: Oxford University Press, 2002), 139.

had ties with the African diaspora.”<sup>168</sup> The formation of the group was largely reactionary to the neo-conservative movement in jazz spearheaded by Wynton Marsalis, and provided a creative outlet for musicians to push for further innovation in lieu of adhering to traditions established in the 1940s, 50s, and 60s.<sup>169</sup> The music of M-Base, especially the more recent incarnations, is heavily influenced by West African rhythmic concepts, frequently employing overlapping rhythmic cycles that are akin to the polyrhythmic ensemble music of the Ewe and Yoruba traditions. With this, the music shares characteristics common to West African music, most notably rhythmic displacement and increased emphasis on off-beat attacks that obscure downbeats. Pianist Vijay Iyer describes the music:

As is common in many African-derived musics, the majority of the accents are displaced from the main beats. (In fact, so strong is the effect of this displacement that the main pulse is typically perceived by casual listeners to be one half-beat off of its true location. However, this may be corrected by careful attention to the other interlocking parts and to Coleman’s improvisation within the overall structure.)<sup>170</sup>

Though M-Base has been in existence for over 30 years, their contributions to jazz and improvised music are still overshadowed by the neo-conservative movement that came to dominate not only jazz performance in the 1980s, but largely shaped the concurrent development and institutionalization of jazz pedagogy.<sup>171</sup>

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<sup>168</sup> Matthew Daniel Clayton, II, *M-Base: Envisioning Change for Jazz in the 1980s and Beyond* (Ph.D. Diss., Harvard University, 2009), 3.

<sup>169</sup> Ibid, 2.

<sup>170</sup> Vijay Iyer, “Steve Coleman, M-Base, and Music Collectivism, Part 4: M-Base: Some musical elaborations,” <http://archive.cnmat.berkeley.edu/~vijay/mbase4.html> (1996), accessed 3 March 2016.

<sup>171</sup> Clayton, *M-Base*, 1.

## CHAPTER V

### EXERCISES

Rhythm remains a largely nebulous concept in terms of jazz pedagogy due to the difficulties it poses in being able to create objective measures to assess students' understanding and application. However, if we as educators are going to continue to perpetuate the notion of the importance of rhythm, it is necessary to give further consideration to how to aid students in developing a stronger sense of rhythm and time; part of this may include relinquishing the role of an assessor, and instead focusing more on guiding students to begin to understand and use rhythm creatively without the consequence of lower grades.

The following chapter will present exercises derived from previously discussed concepts found in West African ensemble music that have directly influenced the development or expansion of jazz rhythm. These exercises are by no means a comprehensive guide to improve rhythm and time, but rather a collection of ideas to aid educators and performers in becoming cognizant in ways to improve an area of neglect. Additionally, the exercises presented are not necessarily sequential - each deals with a separate concept that may be worked on in any order at the individual's discretion. However, it is the author's recommendation that students start with the "Part Interdependence" section, as these exercises are intended to provide a foundation of listening

for and executing rhythms. A majority of the exercises will be presented in either solely rhythmic notation, or using simple melodic patterns. This is a conscious decision on the part of the author to reinforce the idea that a student does not need a vast melodic or harmonic knowledge to begin studying advancing rhythmic concepts. In introducing each exercise there will be a stated objective of what the exercises are intended to accomplish, followed by a process for approaching the exercise. Keeping that in mind, the following are recommended guidelines for practicing all of the following exercises:

1. All exercises should be performed utilizing a metronome or other time keeping device to maintain a steady, regulative pulse.
2. All exercises should first be performed by clapping, singing, or playing a single note on an instrument.
3. Once comfortable clapping, singing, or executing the exercises on a single note, they can be performed utilizing any melodic or harmonic concepts they student is comfortable with.
4. Work to apply the concepts into simple harmonic structures or forms (ii-V7-I, 12-bar blues, etc...)

This sequence is suggested in order to better internalize and hear the rhythmic concepts before applying them to melodic and harmonic materials.

It is the author's hope that these exercises will serve as a springboard for further development of exercises based on individual interest, as well as providing strategies to help individuals creatively approach rhythm.

## **Part Interdependence**

A critical component of successfully executing the complicated rhythmic textures that are present in West African ensemble music is developing a profound sense of part-interdependence. This idea of part-interdependence in West African music is often misconstrued as performers possessing a bi-metric sense of time and rhythm – or rather being able to play simultaneously in two contrasting meters. From the prior discussion we can acknowledge that approaching West African music bi-metrically is a misrepresentation of the true conception of the music - which is all the parts working together to create a cohesive structure, or what will be referred to as resultant rhythms throughout this section. By understanding that the different layers do not function independently within the elaborate textures, but that each part influences the whole, we gain a better sense of how the music is constructed and executed. This becomes especially important in being able to accurately generate and execute polyrhythms.

Outside of aiding in gaining a better understanding of polyrhythmic relationships, developing a sense of part-interdependence allows us to better relate to, and fit into, a variety of rhythmic textures, while concurrently developing a stronger sense of individual time. The following section will present exercises and concepts dedicated to improving individual time and rhythm by working to increase awareness of part-interdependence.

### **Listening for Resultant Rhythms**

To begin the discussion of listening for resultant rhythms, we will utilize a figure that is deceptively challenging to many progressing students - accurately placing off-beats. Arguably, this is due to the strong emphasis on downbeats in Western music that causes notes to want to pull towards these strong beats. Additionally, some students (especially

beginners) are uncomfortable performing with a regulative pulse, such as a metronome. With this lack of comfort, students often take a reactive approach to working with time keeping devices; they wait until downbeats happen and then react to try to place notes in the correct metric context. What this amounts to is frequently a guessing game. To solve this, students are often instructed to subdivide at the eighth note level to better place the off-beats (figure 5.1).

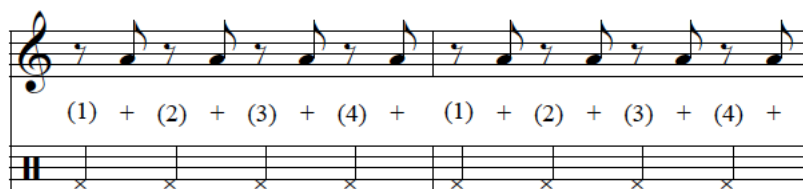


Figure 5.1. Subdividing eighth notes to place off-beats

Though subdividing in this manner does increase accuracy, there are still inherent problems that hinder success; namely, students are focusing on counting rhythm rather than hearing, feeling, and internalizing it as part of a greater texture. And often they are instructed to do so without a regulative pulse, which leads to an interpretation independent of a strict metric structure.

Rather than subdividing, students should be prompted to listen for the resultant rhythm off-beats create, in this instance a continuous eighth note line (figure 5.2).



Figure 5.2. Off-beats as a resultant rhythm

Though the end result is ultimately the same, the conceptual difference between figures 5.1 and 5.2 is significant. By approaching hearing and conceptualizing rhythms as resultant, students will gain the ability to accurately place rhythms in a variety of contexts by increasing their awareness of how rhythms fit into greater textures, as well as how rhythms are constructed linearly. This concept can be applied to any subdivision.

### **Exercise 1.1: Altering the regulative pulse to generate resultant rhythms**

Objectives:

To improve the ability to hear rhythms as resultant in order to improve time, feel, and rhythmic accuracy.

Process:

Begin by performing figure 5.2 (above), focusing not on counting the rhythm but by hearing a continuous strand of eighth notes – the metronome on downbeats, the student playing/clapping on the off-beats. Begin at tempos where the student can successfully hear and execute the resultant rhythms. Gradually increase tempos as a level of comfort is gained. Once the student is comfortable successfully performing consecutive off-beats, the regulative pulse can be altered to occur on different parts of the beat. Figure 5.3 continues with the continuous strand of eighth notes, but now the student will be conceptualizing playing/clapping on the downbeat while the metronome will represent the off-beats.





Figure 5.3. Altering the regulative pulse – pulse as off-beats

Explore setting the regulative pulse on different subdivisions of the beat – various triplet or various sixteenth notes. Figure 5-4 illustrates having the regulative pulse set as the second note of the triplet - this, depending on tempo, closely mimics a swing feel.

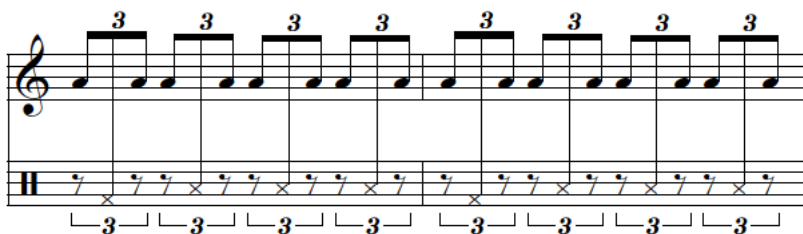


Figure 5.4. Altering the regulative pulse – pulse as second note of triplet

After a level of comfort is attained performing these exercises either clapping or playing an individual note, begin to incorporate scales or other simple melodic patterns (figure 5.5).



Figure 5.5. Altering the regulative pulse – pulse as 4<sup>th</sup> note of sixteenth note grouping using a major scale

As in the above example (figure 5.5), the note where the regulative pulse falls does not have to be suppressed (be performed as a rest); the imperative part of the exercise is to coordinate and maintain where the regulative pulse falls in the texture, focusing on accurate placement by conceptualizing the regulative pulse as part of the rhythmic line.

### Polyrhythms as Resultant Rhythms

A major tenant of African rhythmic systems is the use of polyrhythm, frequently for a prolonged period. This command of polyrhythm is often attributed to a bi-metric sense of time that African musicians purportedly possess. However, as discussed in previous sections, the success of executing the complicated polyrhythmic textures is largely predicated on a strongly developed sense of part-interdependence. A key component to understanding part-interdependence as it relates to polyrhythm is acknowledging that rhythmic strands work together to create resultant rhythms rather than being perceived as contrasting strands (cross-rhythms). Figures 5.6 and 5.7 illustrate a 3:2 and 4:3 polyrhythm, respectively, and the resultant rhythms that are created between the rhythmic strands.

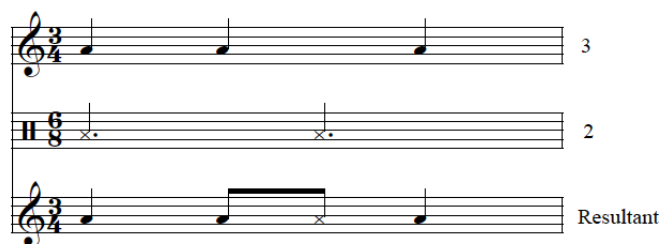


Figure 5.6. 3:2 polyrhythm as a resultant rhythm

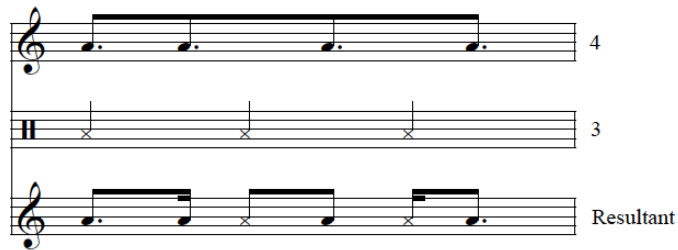


Figure 5.7. 4:3 polyrhythm as a resultant rhythm

The following section will present strategies and exercises that will allow students to successfully construct and perform polyrhythms by understanding and exploiting the resultant rhythms.

### **Exercise 1.2: Polyrhythms as resultant rhythms**

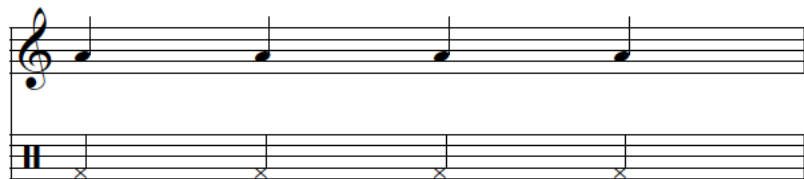
Objectives:

The student will gain the ability to successfully execute polyrhythms by better understanding the resultant rhythms between rhythmic strands.

Process:

To better understand how polyrhythms can be perceived as resultant rhythms it is important to first dissect how polyrhythms are generated in order to grasp the relationship between the two rhythmic strands. To gain a clearer understanding of how to create and conceptualize polyrhythms, we will briefly review the process to create polyrhythms and their resultant rhythms by generating a five-over-four (5:4) feel.

1. Establish the metric framework. In this example, we will use 4/4 meter:



2. Subdivide each note of the top line by what will ultimately be the top rhythmic strand – to create a 5:4 polyrhythm you would divide each note as a quintuplet:



3. Accent every fourth note. Or, if using a different meter, such as 3/4, you would accent every third note:



4. Suppress all notes except the accented notes; this creates the polyrhythm – 5:4:



5. Combine the attack points of the two lines to generate the resultant rhythm:

The image shows two rhythmic strands in treble clef. Each strand consists of a sequence of eighth notes with a '5' above a bracket, indicating a five-measure phrase. The first strand has a dotted quarter note followed by an eighth note, and the second strand has a quarter note followed by an eighth note. Below these two strands is a single staff labeled 'Resultant Rhythm' which shows the combined attack points of the two strands as 'x' marks on a four-measure line.

Once the relationship between the two rhythmic strands is established and the resultant rhythm is generated, we can use this to more comfortably and accurately execute polyrhythms. The following process will utilize a four-over-three polyrhythm and its resultant rhythm:

1. Practice playing/clapping the resultant rhythm with a metronome.

The image shows two staves. The top staff is in treble clef and contains a sequence of four quarter notes. The bottom staff is in bass clef and contains four 'x' marks, representing the resultant rhythm.

2. Begin to accent the notes of the polyrhythm while still playing/clapping the resultant rhythm.

The image shows two staves. The top staff is in treble clef and contains a sequence of four quarter notes, each with an accent (>) above it. The bottom staff is in bass clef and contains four 'x' marks, representing the resultant rhythm.

3. Play/clap only the notes of the polyrhythm while still conceptualizing the resultant rhythm.

The image shows three staves. The top staff is in treble clef and contains a sequence of four quarter notes, each with an accent (>) above it. The middle staff is in treble clef and contains a sequence of four quarter notes, each with an 'x' below it, representing the polyrhythm notes. The bottom staff is in bass clef and contains four 'x' marks, representing the resultant rhythm.

This process reinforces both the idea of exploiting part interdependence to better hear and understand rhythmic relationships, as well as allowing performers to more accurately and confidently execute complicated polyrhythms.

### **Polyrhythms**

From the preceding discussions it is clear that African music is largely organized through the use of polyrhythm. To begin the discussion of exercises utilizing polyrhythms we will briefly revisit an earlier statement from Paul Berliner's *Thinking in Jazz*:

In its most basic form, [polyrhythmic] invention creates a recurring cycle of rhythmic counterpoint. Within the same time span, the basic beats of different meters cross over one another, creating syncopation and temporarily increasing the music's rhythmic instability and tension. They then coincide with one another, resolving the tension. This relationship is simply a springboard to further exploration on the part of improvisers who grasp its implications.<sup>172</sup>

In studying polyrhythm, to the point of having a masterful command of internalizing and understanding polymetric relationships, an improviser has a powerful tool in which to create a vast array of rhythmic tension and release. However, when initially learning rhythms and possible subdivisions, most students focus on note values that evenly divide the previous note (figure 5-8)

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<sup>172</sup> Berliner, *Thinking in Jazz*, 153.

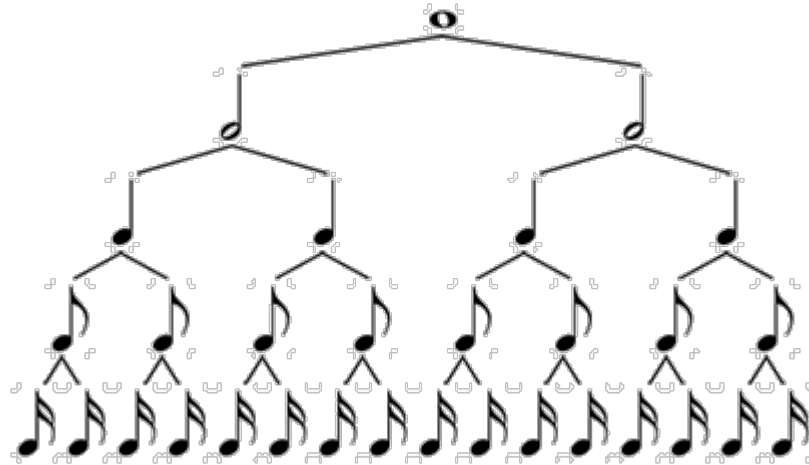


Figure 5.8. Rhythmic tree showing common subdivisions<sup>173</sup>

Focusing on only these subdivisions ignores the uneven possibilities that create polyrhythm. To continue the analogy of a “rhythm tree,” figure 5.8 presents us a tree with only one branch. To understand all the rhythmic possibilities that exist, we would better served by expanding the rhythm tree to include uneven subdivisions – triplets, quintuplets, septuplets, etc...

In order to gain a broad understanding of how to internalize and execute polyrhythms in real time improvisation, the concept should be approached in two manners: (1) a performer needs to have the ability to identify when and what polymetric relationship is happening (3:2, 4:3, 5:4, etc...) and be able to react to the multiple rhythmic strands and internal subdivisions of each, and (2) a performer should be comfortable creating polyrhythmic feels over a single, fixed pulse.

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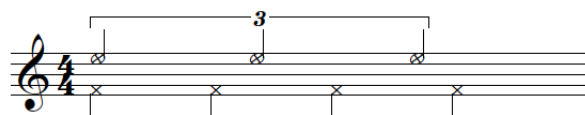
<sup>173</sup> <http://www.mtschools.net/noteandrestvalues?ckattempt=1> (accessed 19 Decemeber 2015)

### Preliminary Exercise: Creating Polyrhythmic Accompaniments

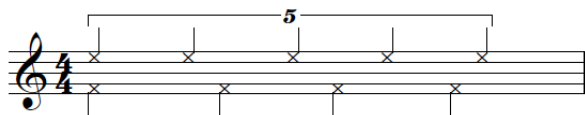
The exercises presented in the following section (section 1: reacting to polyrhythms) will require the use of polyrhythmic accompaniments as an aid in the study and practice of polyrhythms. Before attempting the exercises below, it will be necessary for the student to create polyrhythmic accompaniments. With the influx of available technology, which also has the benefit of being relatively easy to use, there are numerous software programs and applications that are able to do so. The author recommends Polynome, an easy to use application that allows the creation of any polyrhythm, as well as customizable accent patterns and sounds. Failing an availability of newer technology, two metronomes (preferably with different sounds) can also be used.

Using any program, app, or device the student is comfortable with, create accompaniment tracks for a variety of polyrhythmic textures (figure 5.10 and 5.11):

3:4 Polyrhythm



5:4 Polyrhythm



7:4 Polyrhythm

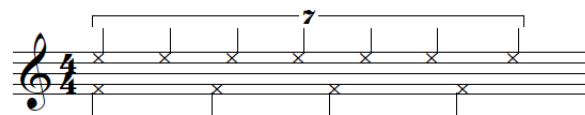


Figure 5.10. Possible polyrhythms over 4/4



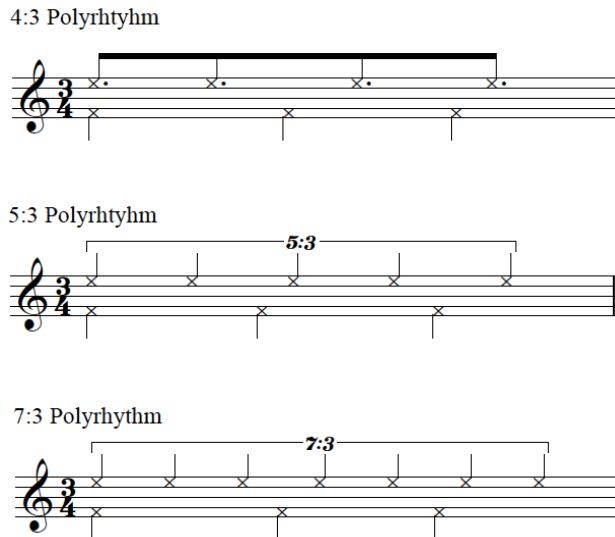


Figure 5.11. Possible polyrhythms over 3/4

### Reacting to Polyrhythmic Textures

An important aspect of gaining comfort with polyrhythmic textures is the ability to identify the polyrhythmic relationships (3:2, 7:5, etc...) and adapt to the separate rhythmic strands. The following section will present exercises that are intended to aid students and performers in gaining familiarity with polyrhythms by working to attain a level of comfort in identifying rhythmic relationships of polyrhythms, as well as being able to confidently articulate internal subdivisions of the rhythmic strands. Additionally, by using a polyrhythmic accompaniment, hearing the resultant rhythm to better understand how the rhythmic strands interact will be further reinforced.

#### **Exercise 2.1: Generating internal subdivisions of polyrhythms**

Objectives:

To gain the ability to identify polyrhythmic textures while articulating varying internal subdivisions.

Process:

With the polyrhythmic accompaniment serving as the time keeping device, begin by performing the internal subdivisions – single, duple, triple, quadruple – of one of the rhythmic strands. Work to attain evenness between all notes, making sure they are all the same length while maintaining the subdivision. Repeat each until comfortable with the specific subdivision. Figure 5.12 demonstrates the subdivisions of the four feel over a 3:4 polyrhythms.

The figure consists of two systems of musical notation, each with a treble clef staff and a bass clef staff. The top system shows a 4-beat feel with a 3:4 polyrhythm. The treble staff contains a sequence of four quarter notes, followed by a repeat sign. The bass staff contains a sequence of four eighth notes, followed by a repeat sign. A bracket with the number '3' spans the first three eighth notes in the bass staff. The bottom system shows a 3-beat feel with a 3:4 polyrhythm. The treble staff contains a sequence of three eighth notes, followed by a repeat sign. The bass staff contains a sequence of three eighth notes, followed by a repeat sign. A bracket with the number '3' spans the first three eighth notes in the bass staff. The number '3' is written above the first treble staff of the bottom system.

Figure 5.12. Subdivisions of the 4 feel over a 3:4 polyrhythm

Once a level of comfort has been reached with one of the rhythmic strands, repeat the process utilizing the other rhythmic strand (figure 5.13).

Figure 5.13. Subdivisions of the 3 feel over a 3:4 polyrhythm

These exercises should first be performed by clapping, singing, or playing a single note; once comfortable with accurately executing the various subdivisions with this limitation, exercises can be repeated using advancing melodic and harmonic material.

### Exercise 2.2: Alternating between rhythmic strands

Objective:

To gain proficiency alternating between rhythmic strands of polyrhythmic textures.

Process:

With the polyrhythmic accompaniment, again, serving as the time keeping device, practice alternating between the various subdivisions of the two rhythmic strands, changing each measure. Figure 5.14 demonstrates this idea using duple subdivisions over a 3:4 polyrhythm.

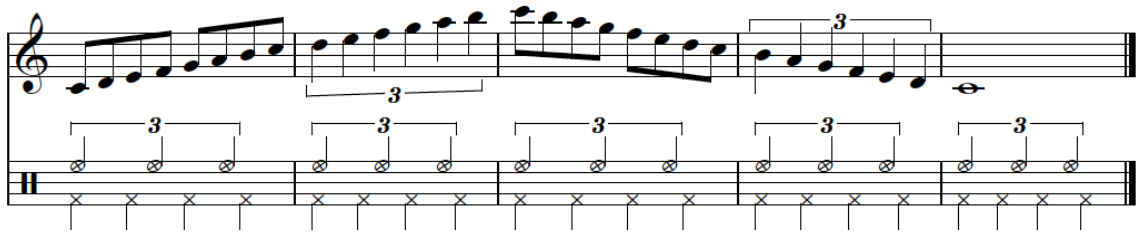


Figure 5.14. Alternating duple subdivisions between 3 and 4 feel over a 3:4 polyrhythm using a major scale

This exercise should be repeated alternating between any two subdivisions:

1. Single to single; Single to duple; single to triple; single to quadruple.
2. Duple to single; duple to duple; duple to triple; duple to quadruple.
3. Triple to single; triple to duple; triple to triple; triple to quadruple.
4. Quadruple to single; quadruple to duple; quadruple to triple; quadruple to quadruple.

### Exercise 2.3: Accenting off-beats in polyrhythmic textures

An important characteristic of both West African and jazz music is beat democratization – bringing the weak beats to the same level as stronger beats. This is frequently accomplished by emphasizing the off-beats through out right accentuation, or by suppressing downbeats to give prominence to off-beats. The following exercises will focus on accenting off-beats/weak beats in polyrhythmic textures.

Objectives:

Attaining comfort in accenting weak beats in polyrhythmic textures.

Process:

With the polyrhythmic accompaniment as the time keeping device, utilizing the duple subdivision, practice accenting the off-beats of both rhythmic strands in three manners: 1) by accenting the off-beats, 2) by suppressing the downbeats of each measure, and by 3) suppressing all the downbeats.

1. Accenting off-beats.      2. Suppressing downbeat of each measure.      3. Suppressing all downbeats.

Figure 5.15. Emphasizing off-beats in a polyrhythmic texture (3:4)

### Exercise 2.4: Melodies over polyrhythms

Objective:

Utilizing the concepts from the previous exercises, perform melodies over polyrhythmic textures.

Process:

Take simple melodies and adapt them to fit over the various rhythmic strands of the polyrhythmic accompaniment. It is best to start with melodies comprised of predominantly quarter, half, and dotted half notes. Figure 5.16 demonstrates this exercise using the first eight measures of the jazz standard “All The Things You Are” (Kern).

A.) Melody in 4 over 3:4 polyrhythm

B.) Melody in 3 over 3:4 polyrhythm

5

Figure 5.16. “All The Things You Are” (A-section) over a 3:4 polyrhythm

This is a very basic presentation of the melody; students should work to perform the melodies more idiomatically, altering rhythms and adding embellishments that fit into the underlying pulse(s).

### Generating Polyrythms Over Fixed Meters

The previous section presented a series of exercises that utilized polyrhythmic accompaniments to assist students in better hearing and reacting to polyrhythms. With this, students will have a better grasp of how polyrhythms and their subdivisions are related, while having a better command of executing these rhythms. The following section will present exercises that will be reliant on students generating polyrhythms over a fixed pulse (meter).

### Exercise 2.5: Generating polyrhythms over a fixed meter

#### Objective:

To gain proficiency executing polyrhythms over a fixed meter.

#### Process:

This is in essence an extension of exercises 1.1 – 1.3, but now there will be no polyrhythmic accompaniment; it is the responsibility of the student to generate polyrhythms over a fixed meter. As the exercises are performed, the focus should be on maintaining evenness to the notes, ensuring that each is the same length and properly placed in the texture. This will be better accomplished if the student conceptualizes the resultant rhythm that is being created between the two rhythmic strands as discussed in section 1.3 (above).



Figure 5.17. 5:4 polyrhythm over fixed meter (4/4) using scale in thirds

### Creating Rhythmic Variety Within Polyrhythms

Though polyrhythms themselves create an array of rhythmic tension and release, once a comfort is gained in conceptualizing and executing the base rhythms, we can start to explore creating greater rhythmic variety within polyrhythmic textures. This section will be dedicated to introducing ways to create rhythmic variety within polyrhythms

employing the ideas of suppressing notes, note groupings, and incorporating internal subdivisions.

### **Exercise 2.6: Suppressing notes**

Frequently in West African music, notes within the elaborate textures will be suppressed in order to accentuate specific rhythmic figures, as well as to contribute to the syncopated feel of the music. As performers, the challenge with note suppression becomes maintaining clarity in the rhythm when only executing certain notes. In other words, we want to maintain the rhythmic feel, but not have to play every note in order to do so. The following exercises will present different strategies to address suppressing notes to create rhythmic variety.

Objectives:

To gain comfort suppressing notes within polyrhythmic textures to create greater rhythmic variety.

Process:

With a metronome, and while still conceptualizing the resultant rhythm of the selected polyrhythm, begin by suppressing one note, alternating notes in the texture (figure 5.18,a). Once comfortable, proceed to suppressing two notes – the downbeat and one additional note (figure 5.18,b). Next, work to suppress two adjacent notes (figure 5.18,c). Finally, work to suppress all but one note, while still maintaining a clear polyrhythmic feel (figure 5.18,d)



A.) Suppressing one note

B.) Suppressing two notes: downbeat and additional note

C.) Suppressing two notes: adjacent notes

D.) Suppressing all but one note

Figure 5.18. Suppressing notes to create rhythmic variety

Explore suppressing notes within the context of improvisations, making sure to maintain the underlying rhythmic feel. Focus on how suppressing notes affects the line and flow, as well as the unique rhythms and syncopation that can be created.

### Exercise 2.7: Note groupings within polyrhythmic textures

Though additive concepts will be addressed in subsequent exercises, we can apply a similar idea of grouping notes into twos and threes within polyrhythms. Note grouping

is an effective way to create syncopation, and when applied to polyrhythms, only amplifies the rhythmic tension.

Objectives:

Creating rhythmic variety by exploiting note groupings within polyrhythms.

Process:

Within polyrhythms, especially ones employing odd beats over the base feel (5:3, 7:3, 5:4, 7:4), the polymeter can be broken down into groupings of twos and threes. By accenting these groupings, further rhythmic variety is created. Using figure 5.19 as a basis, explore the different groupings that can be created by accenting note groupings of twos and threes within polyrhythmic textures.

A.) 5:4 polyrhythm grouped 3 + 2

B.) 5:4 polyrhythm grouped 2 + 3

Figure 5.19. Suppressing notes to create rhythmic variety

Work to gain comfort exploiting note groupings of twos and threes over other polyrhythms – 7:4, 5:3, and 7:3. When practicing this exercise, as with all exercises

dealing with polyrhythms, work to continue to conceptualize and internalize the resultant rhythm to aid in accurate note placement.

### Exercise 2.8: Internal subdivisions of polyrhythms

Once a comfort is reached performing the base polyrhythm, performers can continue to subdivide to create more rhythmic variety and tension (see figure 5.x above). The following section will present strategies to work towards gaining a level of proficiency incorporating smaller subdivisions into polyrhythms.

Objective:

Incorporating internal subdivisions into polyrhythms.

Process:

Begin by selecting a base polyrhythm – the examples below use 5:4, but multiple polyrhythms should be explored. Using the base polyrhythm, begin by subdividing one note, alternating where it is placed in the texture (figure 5.20).



Figure 5.20. Possibilities subdividing one note in polyrhythm

When executing these exercises, continue to focus on the correct placement of the underlying polyrhythm. Though the examples only illustrate incorporating a duple subdivision into the polyrhythm, any subdivision can be employed. However, tempo will

dictate what subdivisions can practically be applied; do not sacrifice accurate placement to insert more notes into the texture.

Continue by adding subdivisions to more notes - two, three, four, etc... - until the student is comfortable playing consecutive lines of subdivided polyrhythms. Once the student is comfortable with a variety of subdivisions, explore combinations that create unique rhythmic patterns (figure 5.21).



Figure 5.21. Examples of subdivision within polyrhythms

### **Exercise 2.9: Displacing polyrhythms**

To create the densely layered ensemble music that is common in Africa, a high degree of staggered entrances are used. Frequently, the same (or similar) rhythms will be performed in different voices, but displaced to begin at varying points within the texture. What this creates is a high degree of rhythmic tension that is rarely resolved. We can mimic this feeling in improvisations by displacing where we start rhythmic figures within a measure.

Objective:

To create tension using rhythmic displacement.

Process:

Utilizing any of the above exercises, practice starting the figures beginning on varying beats within the measure (figure 5.22). Though the figure does not begin on the

downbeat, continue to conceptualize and work to hear the resultant rhythms to ensure accurate placement.



Figure 5.22. Quintuplet displaced to start on varying beats in 4/4 meter

### Polyrhythms Over Smaller Time Spans

The above exercises dealt with creating polyrhythms over an entire bar (or metric cycle), which is arguably the use of polyrhythm that is closest to the West African conception. However, polyrhythms can be created at smaller levels through the use of tuplets; and realistically, polyrhythms over the entire bar can be viewed as an elongated tuplet – a tuplet that spans a duration of a whole note.

This section will present exercises that create polyrhythm by exploiting tuplets that span quarter and half notes.

#### **Exercise 2.11: Tuplets spanning the quarter note**

Objective:

To gain comfort playing tuplets of three, five, six, and seven over the quarter note.

Process:

Perform the tuplets in figure 5.23 focusing on maintaining evenness between each note. Start at a tempo where evenness can be maintained, and the subdivision is clear.

Figure 5.23. Tuplets spanning the quarter note over a swing feel

### Exercise 2.12: Tuplets spanning the half note

Objective:

To gain comfort playing tuplets of three, five, six, seven, and nine over half notes.

Process:

Perform the tuplets in figure 5.24 focusing on maintaining evenness between each note. Start at a tempo where evenness can be maintained, and the subdivision is clear.

Where applicable, conceptualize resultant rhythms to ensure accurate placement.

Figure 5.24. Tuplets spanning the half note over a swing feel

The aforementioned concepts of suppressing notes and note groupings can be applied to exercises 2.11 and 2.12 to add more rhythmic variety.

## Additive Rhythms

Additive rhythms are generally presented as irregular note groupings within a fixed meter, or as bars of irregular meters that allow accents to be placed on downbeats of new measures. This conception was frequently assigned to rhythms in African music as a method to analyze how the rhythms may be linearly conceived. However, if we are to look at the additive constructs alone, the relationship with how the rhythms fit in a greater texture is largely ignored; and this, as discussed above, is to ignore the syncopation inherent to West African music. Rather, additive rhythms should be understood to define attack points over a fixed pulse, thus aiding in creating accentuation of off-beats and syncopation.

This section will present strategies and exercises to utilize additive rhythms as a manner to create syncopation, both through the use of additive figures, as well as by creating accent points within eighth note lines.

### The Tresillo Rhythm and Its Variations

In the above section regarding rhythmic repetition and rhythmic figures the importance of the *tresillo* rhythm on the development of syncopation in ragtime and jazz was detailed. The figure, three notes (attacks) grouped 3 + 3 + 2, is a commonly found rhythm in African music, and one of the clearest examples of African rhythms being retained in jazz and other Afro-influenced musics.

By understanding this figure and its variations (figure 5.25), and how it can be exploited in both creating ground patterns and used to create accent patterns in eighth note lines, improvisers will have a tool that generates syncopation while connecting the music to the African tradition.

### Exercise 3.1: *Tresillo* rhythm and its variations

Objective:

To gain a comfort with the *tresillo* figure and its variations, and the syncopation created.

Process:

Perform the rhythmic figures in figure 5.x focusing on accurate placement.

Always be mindful of where the off-beats are placed, and the resulting syncopation.

The image shows a musical staff with a treble clef and a bass clef. The treble clef staff contains three measures of music. The first measure is labeled 'Tresillo' and contains three eighth notes with accents. The second measure is labeled '3 + 2 + 3' and contains three eighth notes with accents. The third measure is labeled '2 + 3 + 3' and contains three eighth notes with accents. The bass clef staff contains three measures of music, each with a double bar line at the end, indicating a rest or a specific rhythmic pattern.

Figure 5.25. *Tresillo* rhythm and its variations

### Exercise 3.2: *Tresillo* rhythm as accent points in eighth note lines

Objective:

To utilize the *tresillo* figure to define accent points within eighth note lines.

Process:

Utilizing the *tresillo* figure and its variations, play consecutive eighth notes inserting accents where indicated. Again, focus on the syncopation that is being created.

The image shows a musical staff with a treble clef and a bass clef. The treble clef staff contains three measures of music. Each measure contains a sequence of eighth notes with accents. The first measure has three eighth notes with accents. The second measure has three eighth notes with accents. The third measure has three eighth notes with accents. The bass clef staff contains three measures of music, each with a double bar line at the end, indicating a rest or a specific rhythmic pattern.

Figure 5.26. *Tresillo* rhythm and its variations as underlying rhythm



Continue by working to incorporate these patterns into scales, and other familiar melodic material.

### Exercise 3.3: *Tresillo* figure as the basis for rhythmic motives

Objective:

To use the *tresillo* rhythm as the basis to create rhythmic motives.

Process:

Using the *tresillo* figure and its variations as the base rhythm, explore combining eighth notes with full value notes to create strong, syncopated rhythms. Figure 5.27 provides examples – note, the second figure is a commonly found rhythm throughout much of the history of jazz.



Figure 5.27. *Tresillo* using mix of eighth notes and full value notes (quarter and dotted-quarter)

### Displacing Additive Rhythms

Rhythmic displacement is the act of shifting figures to varying parts of the bar – moving figures ahead or behind in the texture. This accomplishes two main things: first, by displacing the rhythmic figures, new accent patterns are created that generate greater rhythmic variety. Secondly, it is a technique that can assist performers in creating phrases that traverse barlines.

### Exercise 3.4: Rhythmic displacement – delay

Objective:

To gain the ability to displace the *tresillo* rhythm later in the bar to create greater rhythmic variety.

Process:

Begin by performing the *tresillo* rhythm and its variations delayed by an eighth note (figure 5-28), focusing, again, on the accent pattern and the syncopation being created.



Figure 5.28. *Tresillo* delayed by an eighth note

Once comfortable with performing the basic *tresillo* figure, use it to define attack points in an eighth note line (figure 5.29).



Figure 5.29. *Tresillo* delayed by an eighth note as underlying rhythm

Repeat the same process above, displacing the figure by a quarter note - two eighth notes (figure 5.30), and again by a dotted-quarter note – three eighth notes (figure 5.31).



Figure 5.30 *Tresillo* delayed by a quarter note (two eighths)



Figure 5.31. *Tresillo* delayed by a dotted-quarter note (three eighths)

All of the above examples can also utilize mixing note values – eighths, quarter, and dotted-quarters – to create rhythmic motives.

### Exercise 3.5: Rhythmic displacement – anticipation

Objective:

To gain the ability to displace the *tresillo* by placing it before the bar (rhythmic anticipation).

Process:

Begin by performing the *tresillo* rhythm and its variations anticipated by an eighth note (figure 5.32). As in the previous exercise, first perform the underlying rhythm to internalize the accent pattern and syncopation, then move on to using it to define attack points within an eighth note line.



Figure 5.32. *Tresillo* and its variations anticipated by an eighth note

Repeat the process anticipating the figure by a quarter note (figure 5.33) and by a dotted-quarter note (figure 5.34).



Figure 5-33: *Tresillo* anticipated by a quarter note (two eighths)



Figure 5-34: *Tresillo* anticipated by a dotted-quarter note (three eighths).

### Augmentation and Diminution of Additive Rhythms

In music, augmentation is defined as a “compositional procedure in which the note-values of a musical statement are lengthened (usually doubled).”<sup>174</sup> Contrasting this

<sup>174</sup> Grove online: [http://0-www.oxfordmusiconline.com.source.unco.edu/subscriber/article/opr/t114/e472?q=augmentation&search=quick&pos=3&\\_start=1#firsthit](http://0-www.oxfordmusiconline.com.source.unco.edu/subscriber/article/opr/t114/e472?q=augmentation&search=quick&pos=3&_start=1#firsthit) (accessed 15 December 2015).

is diminution, the “Shortening of the time-values of the notes of melodic parts.”<sup>175</sup> By applying these concepts to the *tresillo*, new accent patterns are created that can be exploited in the same manner as the regular *tresillo* rhythm. Figure 5-35 illustrates the *tresillo* figures and its variations augmented to a quarter note level (eighth notes become quartet notes), while figure 5-36 shows the *tresillo* diminished to sixteenth notes (eighths become sixteenths).

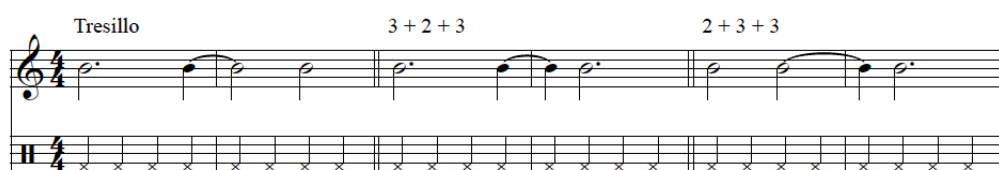


Figure 5.35. *Tresillo* and variations augmented to quarter note level

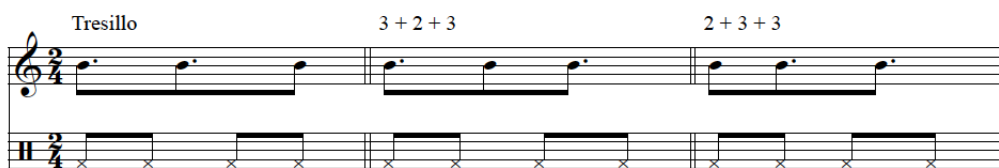


Figure 5.36. *Tresillo* diminution to sixteenth note level

### Exercise 3.6: Augmenting the *tresillo* rhythm

Objective:

Using the augmented *tresillo* rhythm to create rhythmic figures and attack points.

<sup>175</sup> Grove Online: [http://0-www.oxfordmusiconline.com.source.unco.edu/subscriber/article/opr/t237/e2970?q=diminution&search=quick&pos=2&\\_start=1#firsthit](http://0-www.oxfordmusiconline.com.source.unco.edu/subscriber/article/opr/t237/e2970?q=diminution&search=quick&pos=2&_start=1#firsthit) (accessed 15 December 2015).

Process:

Similar to the exercises above, use the augmented *tresillo* rhythm (figure 5.35) to both create new rhythms, as well as underlying rhythms to define attack points within longer eight note lines (figure 5.37).



Figure 5.37: Tresillo augmented as underlying rhythm in eighth note line

This process is especially helpful when performing at faster tempos.

### **Exercise 3.7: Diminution of the *tresillo* rhythm**

Objective:

Using diminution, alter the *tresillo* rhythm to create rhythmic figures and attack points.

Process:

Similar to the exercises above, use the diminished *tresillo* rhythm (figure 5-36) to both create new rhythms, as well as underlying rhythms to define attack points within sixteenth note lines (figure 5-38). These resulting figures are very similar to rhythms commonly found in ragtime.



Figure 5.38. *Tresillo* diminished as underlying rhythm in sixteenth note line

For both above exercises 3.6 and 3.7, the concept of displacement can be applied to create new accent patterns and even greater rhythmic variety.

### Expanding Additive Concepts

To this point, the only additive rhythm presented has been the *tresillo*. This is largely due to its commonality within West African and Afro-influenced music, as well as the ease in which it can fit into a 4/4 measure. However, the additive concept can be expanded; and by doing so, we can create rhythms that create even greater syncopation, while expanding phrases and traversing barlines. Figure 5-39 illustrates some possibilities of two-measure additive figures.

The image displays four systems of musical notation, each consisting of a treble clef staff and a bass clef staff. The treble staff in each system contains a melodic line with eighth-note patterns and accents, while the bass staff contains a rhythmic accompaniment of eighth notes. The systems are numbered 1, 6, 11, and 14, indicating the starting measure of each system.

Figure 5.39. Possibilities of two measure additive figures.

Beyond two measures, additive constructs can be used to create rhythms and phrases of indeterminate length. The longer an additive construct is used, the more variations that become available. The ensuing exercise will serve as a guideline to using additive concepts to construct longer rhythms and phrases.

### Exercise 3.8: Expanding the additive concept

Objective:

To use the additive concept to construct longer rhythms and phrases.



Process:

Use the following steps as a general guideline to create longer passages utilizing additive concepts.

NOTE: A general formula is that for every 4/4 measure there will be two groupings of three (dotted-quarter note) and one grouping of two (quarter note) - in three measures, you will have six groupings of three, and three groupings of two. However, this does not necessarily have to be adhered to – you can choose to utilize any grouping at anytime. This will only create greater variety, and lead to figures that will not necessarily coincide with the beginning or end of a measure.

1. Use groupings of twos and threes (quarter and dotted-quarter notes) to create an additive rhythm over three or more measures:



2. Use the created figure as an underlying rhythm for attack points within an eighth note line:



3. (Optional) Vary the rhythm to use eighth notes mixed with longer values (quarter and dotted quarter) to create rhythmic variety:



4. (Optional) Displace rhythm, either by anticipation or delaying in the bar, to create new accent patterns:



### Developing Rhythmic Motives (Repeated Patterns)

West African music is largely reliant on repeated figures and patterns to provide an organizational and temporal basis for the music. This is most commonly presented as bell patterns. Bell patterns themselves can give improvising musicians motivic material to use, or, by gaining an understanding of how these patterns are created, musicians can generate their own rhythmic figures to use as an organizing tool in improvisations.

This section will present strategies to use source material in improvisations, as well as exercises to develop personal rhythmic motives.

#### Exercise 4.1: Incorporating source material

Objective:

Using bell patterns or other source material as rhythmic motives in improvisation.

Process:

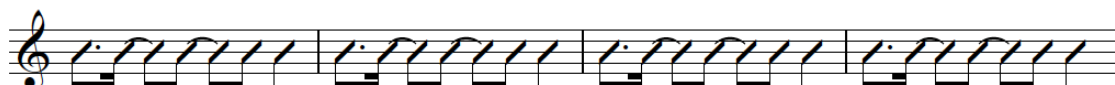
By using bell patterns from figure 4-1 (above), we have a variety of short rhythmic motives that can be exploited in improvisation. Begin by choosing a bell pattern that will serve as a rhythmic motive; for this example we will use the time line associated with the Kpanlogo dance (figure 5.40).



Figure 5-40: Time line associated with Kpanlogo dance.

We can use this figure in several manners:

1. As the lone figure for improvisation, in its original orientation:



2. As the lone figure for improvisation, but displaced to start on any beat:



3. Incorporated into longer phrases by adding pick-ups or by extending the phrase (displaced motives from step #2 can be used as well) :



This process works well for figures that are already in 2/4 or 4/4. However, many of the above bell patterns are in 12/8, which creates different possibilities for how they could be used in improvisation over typical meters – we will assume 4/4 for the following examples.

One manner in which we could approach bell patterns in 12/8 is to understand that they will often be presented with four main beats as the regulative pulse – four dotted quarter notes. With this, we could simply alter the rhythms to fit into 4/4 (figure 5.41)

becomes

Figure 5.41. Blakey's orientation of a 12/8 bell pattern adapted to 4/4

This manner allows the new figure to retain the same sound and feel as the original bell pattern – in the case of figure 5-41, the polyrhythm in the second half of the bar is maintained. The other way in which we could use the original 12/8 pattern is to keep the written rhythm, but impose it over a 4/4 meter (figure 5-42). What this creates is a six beat motive that traverses the barline, and though losing the polyrhythm of the original patterns, still possesses a high degree of syncopation.

Figure 5.42. Blakey's orientation of a 12/8 bell pattern imposed over 4/4

These bell patterns and orientations can also be displaced, approached by pick-up phrases, or extended, as in the above examples.

Using these methods, different bell patterns or rhythmic motives from source material can be explored to give performers a rhythmic vocabulary that is directly derived from African sources.

#### Exercise 4.2: Creating bell patterns/time lines/topos

In his book, *Representing African Music*, Kofi Agawu hypothesizes a process in which to generate time lines (bell patterns), specifically citing the pattern common in highlife music (figure 4.1,3).<sup>176</sup> His process is as follows:

Step one: Establish a 4/4 metrical cycle



Step two: Suppress the downbeat



Step three: Subdivide remaining beats



Step four: Suppress the on-beats

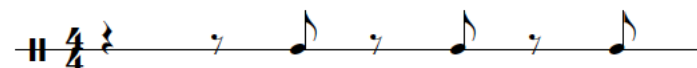


Figure 5.43. Generating a time line<sup>177</sup>

Of this process he states:

The reason for beginning with the main beats is to ensure that interpretation is grounded by the choreographic supplement, here a straightforward foot movement, perhaps alternating left and right, coinciding with the four main beats. And the thought behind suppression of beats is to introduce an element of play.

<sup>176</sup> Agawu, *Representing African Music*, 78.

<sup>177</sup> Ibid, 78.

The idea of knowing where the beat is but articulating it as a silence is part of an aesthetic of play found in numerous African communities. The generative process shown [...] is thus consonant with indigenous habits of rhythmic organization, even if it is never framed as such.<sup>178</sup>

He continues:

Generating *topoi* (timelines) in this fashion is of course a speculative exercise, but it has the advantage of inciting the analyst to modest acts of composition and thereby reinforcing the dialectical stance that facilitates understanding of African rhythm.<sup>179</sup>

The following exercise will use Agawu's process as a basis for developing rhythmic motives (or personal timelines) to be used as an organizing tool in improvisation.

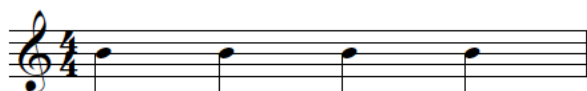
Objectives:

To use the above generative process to create rhythmic motives.

Process:

Using Agawu's generative process, experiment to create short rhythmic motives that can be used as organizing tools in improvisation. When creating motives, not all on-beats need to be suppressed. Rather, accents can be used to draw attention to off-beats and diminish the emphasis of on-beats. Additional consideration can be given to utilizing different note values to create rhythmic variety, or using ties to connect notes over downbeats. Below is an example of using the process to create a rhythmic motive.

Step one: Establish the metric cycle (meter)

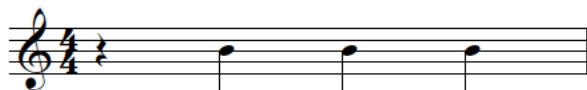



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<sup>178</sup> Ibid, 77-78.

<sup>179</sup> Ibid, 78.

Step two: Suppress the downbeat



Step three: Subdivide the remaining notes



Step four: Suppress on-beats (or emphasize off-beats)



These patterns can then be displaced, and incorporated into longer phrases.

### Advanced Exercises

The preceding exercises all employed a generated accompaniment – either a metronome with a fixed pulse, or a polyrhythmic accompaniment. By utilizing these tools when beginning the study of polyrhythms, it will aid students in better internalizing and executing the advancing concepts. However, once a level of comfort has been reached performing the exercises with a metronome or polyrhythmic track, students should challenge themselves to provide their own accompaniment; this can be accomplished by clapping (or tapping with feet) any polyrhythm, while singing or playing. Begin by repeating exercises 2.1, 2.2, 2.3, and 2.4 while self-accompanying, focusing on clearly maintaining the polyrhythm in clapping or foot taps. Utilize a variety of polyrhythms, continuing to conceptualize the resultant rhythms to maintain accuracy and evenness. Once the student is able to successfully perform these exercises while self-accompanying,

work to gain a level of proficiency freely improvising, or improvising over forms, while maintaining a steady, self-generated polyrhythm.



## CHAPTER VI

### CONCLUSIONS

Rhythm is the most commonly identified musical element that distinguishes jazz from other genres of music, and is largely agreed upon by educators and performers to be a critical element in improvisation. However, rhythm, though arguably being the most defining characteristic of jazz, has lagged behind in being represented in formal pedagogy. This has led to an abundance of methods and information dedicated to melody, harmony, and instrumental technique, but with comparatively few resources dedicated to rhythm. If we as educators are to continue to propagate the importance of rhythm, strategies and exercises need to be developed that can be included in formal pedagogy. This can include looking more analytically at rhythmic concepts utilized by past masters, and by finding strategies and inspiration from other sources.

It is important to acknowledge the correlations that exist between how rhythm evolved in jazz and its West African antecedents. Syncopation, the use of polyrhythm, and rhythmic repetition can all be attributed as direct consequences of the West African influence on jazz; and by gaining a deeper understanding of how these concepts are conceptualized and executed within the complexity of West African music, it gives jazz performers and educators a potential wealth of information that can be used in performance and pedagogy.

### **Suggestions for Further Research**

Rhythm remains a largely nebulous concept in terms of jazz pedagogy due to the difficulties it poses in being able to create objective measures to assess students' understanding and application. However, if we as educators are going to continue to perpetuate the notion of the importance of rhythm, it is necessary to give further consideration to how to aid students in developing a stronger sense of rhythm and time.

This project set out to gain a better understanding of West African rhythmic practices as a means to develop exercises and concepts that could be applied to improving the use of rhythm in improvisation. Throughout the course of this study, the author, through developing and practicing the presented exercises, noticed improvement in his own ability to better generate rhythmic material, as well as the ability to perform with better time and feel. Additionally, a corollary effect of practicing these exercises was improved listening skills, especially to hear and understand rhythm, which ultimately lead to greater sensitivity and interaction when performing with other musicians.

However, this individual improvement does not immediately validate these exercises or methods. In order to assess the usefulness of the outlined exercises, as well as to gain a better sense of how they could possibly be incorporated into either classroom or individual instruction, it is necessary to present the exercises contained in this study in an academic environment. Below is a suggested method to test the validity of the exercises.

A homogeneous group of intermediate improvisers (10-15 participants) are to be selected to participate in a fifteen-week study (a common length of a college semester).

Participants will be selected based on the following criteria:

1. Participant demonstrates proficiency on their respective instrument.

2. Participant demonstrates basic knowledge of jazz improvisation including: harmony (chord/scale theory), style, and some melodic vocabulary.
3. Participant has the ability to read and comprehend musical notation.
4. Participant is dedicated to 10-12 hours of individual practice per week.
5. Participant is available for two hours of group instruction per week.

The selected participants will be asked to perform a two-chorus solo on the chord progression to the jazz standard “Autumn Leaves,” executed at a medium-swing tempo, with rhythm section accompaniment. This performance will be recorded and critiqued to assess the student’s baseline level of proficiency, specifically focusing on the student’s comfort with time and feel, as well as rhythmic variety. Participants will then be divided into two groups, A and B. Each group will be assembled to create a balance of skills; one group will not be considered stronger or more capable than the other.

Over the fifteen-week study each group will receive two hours of instruction per week. Group A will be presented with concepts and exercises commonly found in jazz pedagogy - exercises and assignments that are focused on acquisition and application of harmonic knowledge and jazz-language derived mainly from be-bop and post-bop language of the 1940s and 1950s, with applicable exercises in the continued development of style. Group B will be presented with the same exercises as Group A, but will be given additional rhythm exercises derived from the presented research. At the end of the fifteen weeks participants will again be recorded performing two improvised choruses on “Autumn Leaves.” These recordings will again be critiqued focusing on participant’s use of rhythm and comfort with time and feel, as well as being compared to the original baseline recordings in order to assess participants’ progress. Finally, using the data and

observations collected over the course of the fifteen-week study, conclusions can be drawn about the effectiveness of the rhythm exercises on aiding students' rhythmic maturation, as well as suggestion and strategies to effectively implement the exercises into private or classroom instruction.

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