2018-04-25

A Jazz Pianist’s Guide to Rhythmic Independence through the Adaptation of Afro-Cuban Rhythms.

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UNIVERSITY OF MIAMI

A JAZZ PIANIST’S GUIDE TO DEVELOPING RHYTHMIC INDEPENDENCE THROUGH THE ADAPTATION OF AFRO-CUBAN RHYTHMS

By
Zachary Charles Bartholomew

A DOCTORAL ESSAY

Submitted to the Faculty of the University of Miami in partial fulfillment of the requirements for the degree of Doctor of Musical Arts

Coral Gables, Florida
May 2018
A doctoral essay submitted in partial fulfillment of
the requirements for the degree of
Doctor of Musical Arts

A JAZZ PIANIST’S GUIDE TO DEVELOPING RHYTHMIC INDEPENDENCE
THROUGH THE ADAPTATION OF AFRO-CUBAN RHYTHMS

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A Jazz Pianist’s Guide to Rhythmic Independence through the Adaptation of Afro-Cuban Rhythms.

While a substantial amount of jazz educational material emphasizing note choices, orchestration, harmonic options, and stylistic analysis is available, there is surprisingly very little research on the piano’s immense rhythmic capabilities. This paper addresses the challenge of developing the pianist’s rhythmic independence and awareness through the study, practice, and adaptation of drumming techniques relating to Afro-Cuban rhythmic patterns. Because clave is an integral part of Afro-Cuban music, it will be the focal point of the paper and foundation on top of which all the rhythmic exercises will be practiced.

The reason for exploring Afro-Cuban drumset approaches and rhythmic vocabulary is to reveal to the pianist the creative possibilities and benefits which result from approaching the piano as a percussion instrument and using rhythm, rather than notes, as the impetus for improvisational vocabulary. Practicing and developing rhythmic awareness and independence will allow the pianist to function in rhythmically demanding musical scenarios, which in turn will increase his/her versatility and employability.
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Currently there exists a plethora of educational books and academic research dedicated to the understanding, methodology, and pedagogy of jazz piano. Included in this compendium of knowledge are vast amounts of resources addressing subjects such as chord voicings, comping techniques, solo piano techniques, transcriptions and analyses of pianists, specific styles of jazz piano (bebop, blues, Latin, stride, etc.), reharmonization, and chord/scale theory, to name a few. The abundance of past and ongoing research on piano-specific jazz techniques is perhaps due to the versatility of the instrument, which in turn allows for an overwhelmingly and nearly infinite amount of musical possibilities. While a substantial amount of jazz educational material emphasizing note choices, orchestration, harmonic options, and stylistic analysis is available, there is surprisingly very little research on the piano’s immense rhythmic capabilities.

Conversely, there is a considerable amount of drumset-specific jazz research and educational material which focus on rhythm. Just as there is an immense amount of pedagogical resources devoted to the previously mentioned aspects of jazz piano, the same can be stated for rhythmic material pertaining to jazz drumset. Subjects include, but are not limited to: transcriptions and analyses of drum solos/comping figures, grooves/rhythmic patterns (swing, bebop, funk, Afro-Cuban, odd-metered, etc.), syncopation, rhythmic independence between limbs, metric modulation, cross-rhythms, and polyrhythms. The rationale justifying the need for such research and material seems obvious: the drumset is a percussion instrument whose primary function in jazz is purely
rhythmic. Though there are some exceptions, the drummer typically has little to no melodic or harmonic function within the ensemble. This in turn allows the drummer to focus completely on rhythm\(^1\), articulation, dynamics, and texture. Understanding and mastering these rhythmic concepts are vital to the skillset of a drummer and the musical role the drumset plays in jazz music.

As previously mentioned, the vast amount of rhythmic knowledge that is essential to the skillset of a drummer is effectively addressed and represented in drumset educational material. However, is the drumset the only instrument in jazz education whose pedagogical resources should prioritize rhythm with such precision and resoluteness? The piano is also a percussion instrument and shares many similar capabilities with the drumset. Unfortunately, unlike the drumset, educational material existing on jazz piano does not typically reflect or address the extensive rhythmic possibilities available to pianists. What if more material existed which encouraged the jazz pianist to shift his/her focus to rhythmic concepts prioritized by drummers? Furthermore, what kinds of benefits would there be from adapting drumset techniques, rhythmic approaches, and exercises to the piano? How would the understanding and application of these skills aid in developing the pianist’s rhythmic awareness and independence? To what extent are such things practical, or even possible to transfer to the piano?

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\(^1\) The term “rhythm” is used in a general sense here meaning to encompass groove, comping figures, rhythmic patterns/groupings, and the orchestration/voicing of these elements on the drumset.
Throughout its history, the piano has frequently been associated with stringed instruments because it uses vibrating strings as a sound source. However, this classification is problematic since a piano's strings are not meant to be bowed or plucked, but instead struck percussively by felt hammers. Consequently, there have been recent movements arguing the validity of categorizing it as a percussion instrument. In her dissertation, “The Piano as Percussion Instrument,” Margaret Brink examines the piano’s percussive qualities in the context of Western Classical music, stating:

The first two decades of the twentieth century witnessed several styles of piano writing, one of which emphasized motorized rhythms and detached accented sounds. This study seeks to explore the piano's role in the emergence of this style and to define the percussive qualities of the piano.

In his dissertation entitled “Eighty-Eight Drums: The Piano as Percussion Instrument in Jazz,” Tom Van Seters explores further the piano’s percussive nature through investigating how the instrument specifically relates to the drums. When comparing some of the technical aspects of the two instruments, he observes, “Just as the drummer uses sticks and/or brushes to strike drums and/or cymbals, the pianist at times uses a range of striking motions when depressing keys, which then trigger hammers that strike strings.” These arguments, along with the inherently percussive attributes the piano possesses, offer a connection to be explored between the piano and drumset, and with it, an invitation to explore the vast rhythmic possibilities achievable on the instrument.

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4 Brink, “The Piano as Percussion Instrument.”
A closer examination of the piano’s musical role in jazz music can reveal more about its rhythmic functionality and symbiotic relationship with the drums. In the standard jazz ensemble, the piano is categorized as part of the rhythm section. This designation helps to outline the function of the piano in a group setting and highlights the notion that rhythm should be of high importance to the pianist. It also positions the piano in close proximity, both physically and functionally, to the drumset. This proximal relationship is beneficial to explore due to the many parallels existing between the piano and drumset, both in rhythmic capability and musical function.

One important parallel that unites pianists and drummers is their use of percussive action to produce sound. Another unifying trait is their shared ability to create rhythmic layers through the independent functioning of multiple limbs. Like the drums, the piano can orchestrate multiple voices and rhythms simultaneously. This capability allows the pianist the opportunity to adopt rhythmic devices and concepts utilized by drummers that require multiple voices/rhythmic layers and tailor them to the piano. Additionally, the pianist and drummer play similar rhythmic roles when accompanying soloists in a jazz ensemble setting. Discussing the symbiotic relationship between piano and drums and its continuing evolution, Seters states:

Pianists and drummers share important roles within the rhythm section, each supporting soloists with non-regular "comping" figures. They also communicate with each other through various forms of call and response, a practice that generally enhances what is known as the "hook-up" between them. Over time, the synergies between pianists and drummers increased as their respective vocabularies intersected and overlapped in more and more pronounced ways.

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6 Jazz rhythm sections typically consist of drums, bass, piano, and/or guitar.  
7 Ibid., ii.  
8 In jazz vernacular, accompanying is commonly referred to as “comping.”  
9 Ibid., 119.
The overlap and intersection of rhythmic vocabulary Seters mentions can be heard in many jazz recordings and continues to expand as jazz music develops. However, there is surprisingly very little scholarly work investigating this relationship and the rhythmic vocabulary shared between the two instruments. More importantly, with the overabundance of educational and research material dedicated to jazz piano, very minimal emphasis has been put on the exploration and realization of rhythmic capabilities of the instrument.

Need for Study

Since the early 2000s, it has become more commonplace for contemporary jazz artists, as well as college-aged jazz students, to perform music which employs rhythms that go beyond traditional 4/4 swing. Musicians in today’s limelight such as Vijay Iyer, Miguel Zenon, Avishai Cohen, Tigran Hamaysan, Dafnis Prieto, Gonzalo Rubalcaba, and Ari Hoenig, to name a few, are exemplars of incorporating advanced rhythmic ideas in their music. These rhythmic concepts may incorporate odd time signatures and mixed meters, syncopated grooves and rhythmic groupings, rhythmic patterns and ideas originating from specific musical cultures, or a combination of any/all these possibilities. Given the development of this rhythmic trend in the jazz world, jazz musicians are often expected, and required, to have a more advanced understanding and proficiency in rhythm. This high level of rhythmic proficiency is necessary to perform and function in many modern-day rhythm sections. Pianists can especially have much rhythmic demand put on them. Given the piano’s vast percussive and rhythmic capabilities, pianists may double a complicated bass line in the left hand while simultaneously playing horn
melodies or drumming comping figures in the right hand. These types of tasks require ample skill in both rhythmic awareness (having the ability to understand and execute rhythms accurately) and rhythmic independence (being able to play two independent parts/rhythms between both hands at once). Though the piano’s rhythmic capabilities may at times result in difficult and rhythmically involved piano parts, the skills obtained through learning this difficult material provide pianists with the potential to develop and incorporate more rhythmic approaches into their playing. However, since jazz piano instruction historically tends to emphasize the piano’s melodic and harmonic capabilities, often these two elements are the focus of academic settings and practice time, while the vast rhythmic possibilities on the instrument are left untapped and unexplored.

This paper will explore practice techniques for piano that develop rhythmic awareness and independence between the two hands. Because of the parallels between piano and drums, these practice techniques will be inspired, adapted, and developed from drumset exercises and approaches. Thus, the paper also seeks to explore and develop the intersecting vocabulary between the two instruments. The reason for exploring drumset approaches and rhythmic vocabulary is to reveal to the pianist the creative possibilities and benefits which result from approaching the piano as a percussion instrument and using rhythm, rather than notes, as the impetus for improvisational vocabulary. Practicing and developing rhythmic awareness and independence will allow the pianist to function in rhythmically demanding musical scenarios, which in turn will increase his/her versatility and employability. Having proficiency or expertise in these rhythmic skills will also help pianists play and interact with drummers who use advanced rhythmic concepts.
Since using drums to inform rhythmic vocabulary for pianists creates such a broad scope and infinite amount of possibilities, the focus of the topic has been narrowed to drumset vocabulary dealing specifically with Afro-Cuban clave-based rhythms. Afro-Cuban clave-based rhythmic patterns were chosen as the focus of this study for three main reasons:

1. The rhythmic heritage of jazz and Afro-Cuban music both stem from Africa, thus promoting a strong relationship between swing and clave rhythms. Clave can be used in swing, and the swing pattern in jazz can be traced back to African bell patterns.10

2. The syncopated nature of clave-based patterns requires musicians to subdivide and organize bars of music in different ways, thus increasing rhythmic awareness.

3. An immense amount of rhythmic possibilities can be crafted and extracted from clave-based patterns through the use of rhythmic displacement, ostinatos, permutation, and rhythmic layering.

The approaches and techniques explored in this paper will be applied to improvisation and comping. Before proceeding, it is important to note that rhythm does not exist in a vacuum separate from other elements of music, and so the improvement of rhythm tends to also yield positive results in the harmonic and melodic aspects of one’s playing. Though melodic and harmonic possibilities will not be the focus of this paper, to have practical value, the rhythmic concepts, approaches, and exercises explored need to

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10 Cuban-born jazz drummer Ignacio Berroa conducts collegiate masterclasses which highlight the rhythmic ancestry jazz and Afro-Cuban music share. During these presentations/lectures he demonstrates the relationship/integration of swing and clave through performance and provides recordings of African bell patterns which strongly resemble the jazz swing pattern.
be paired with notes and put into a harmonic context. However, the rhythmic exercises and concepts explored will first be learned and notated from a purely rhythmic perspective, either using rhythmic notation or a single note to make the rhythmic concept very clear. After the rhythmic coordination for each idea/exercise is learned and understood on a basic level, then melodies and harmonies will be paired with the rhythms.

**Purpose of the Study**

The purpose of this study is for the contemporary jazz pianist to gain rhythmic awareness and independence between the two hands through the study, practice, and application of drumming techniques, specifically those utilizing Afro-Cuban clave-based rhythmic patterns.

**Research Questions**

Specific research questions to be addressed by this study include:

1. Why is it important to develop highly advanced rhythmic awareness and independence as a modern jazz pianist?
2. What are some effective drum books, educational materials, or sources that can help jazz pianists advance their rhythmic concept/capabilities?
3. What are some Afro-Cuban clave-based exercises and approaches that can effectively be translated to piano in order to develop rhythmic awareness and independence?
4. Why use Afro-Cuban clave-based rhythmic exercises and how do they translate into modern jazz?
CHAPTER 2

LITERATURE REVIEW

Regarding current jazz piano literature and educational materials, there exists an abundant collection of resources available for both the student and educator. However, much of these instructional, technical, and analytical writings focus on melodic improvisation and harmonic theory. Subjects such as chord/scale relationships, chord voicings, and harmonic theoretical applications have been covered in depth. Contrastingly, the topic of rhythmic possibilities available to the jazz pianist has been far less explored within this compendium of literature. In 2012, Thomas Van Seters published “Eighty-Eight Drums: The Piano as Percussion Instrument in Jazz,” an insightful doctoral thesis which acknowledges and calls attention to the existing underrepresentation of rhythmic educational and technical literature in jazz, with specific regard to the piano. Examining this predicament in the opening chapter, he observes:

By contrast, there has been far less discussion about rhythm in jazz, especially as it applies to non-drummer instrumental practice. This gap in the literature includes many of what could be considered the percussive techniques used by pianists. The literature that does exist tends to describe in only very general terms a pianist's normative performance role within the rhythm section and usually only in the most mainstream of jazz styles.11

Books such as Jeb Patton’s An Approach to Comping Vol. 1 & 2 are valuable resources for pianists that address rhythm, but the rhythmic context is confined solely to comping. Furthermore, these comping figures are stylistically restricted to transcriptions of pianists who emerged from the bebop era of jazz. Most other jazz piano literature only briefly addresses rhythm or doesn’t cover it at all. Even more rarely discussed in jazz piano literature is the topic of rhythmic independence. It is for these reasons, plus others

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discussed later, that this study will examine Afro-Cuban drumming literature to find sources for rhythmic inspiration, development, and instruction for the jazz pianist.

**Non-Drummer Specific Rhythmic Literature**

It must be noted that some, though not a substantial amount of, non-drummer specific rhythmic literature exists. Malcolm Santiago’s book *Beyond the Metronome: Becoming an Inchronous Musician* contains lessons and exercises to help musicians develop and internalize their sense of steady time. These exercises revolve around various play-along click tracks of Santiago’s design that force the musician to address and develop the accuracy of their subdivision and steadiness of their rhythmic pulse. In the preface, he affirms that musicians should put an equally important emphasis on their ability to play in time as their ability to play in tune. In his own words:

*Intonation* is one’s ability to play accurate pitches. Without this, melodies sound tainted, harmonies sound indiscernible. *Inchronation* is my own word for an equally valuable skill: one’s ability to play accurately or steadily in time, without unintentionally speeding up or slowing down…what many experienced ensemble musicians refer to as playing “in time.”

This book doesn’t dictate what musicians should practice or play over the click tracks, but rather uses the tracks to address rhythmic awareness in a general sense.

Another non-instrument specific book on rhythm is Peter Magadini’s *Polyrhythms: The Musician’s Guide*, a book full of polyrhythmic figures/exercises that are “adaptable for all instruments or none at all, whichever the musician prefers.” This book is a useful resource in raising awareness of the importance of practicing rhythm and illustrates the many possible combinations, layering, and groupings of rhythms which can

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be used in music. The content, however, is limited only to rhythms written out over a steady pulse (typically quarter notes in 4/4 time) and has no link or reference to other elements of music such as melody, harmony, and form.

Ted Reed’s book, *Progressive Steps to Syncopation for the Modern Drummer*, is also a very useful source for developing one’s rhythmic awareness. Even though the book’s targeted demographic is drummers, the pedagogical focus is to develop one’s ability to read rhythms and gain familiarity with syncopation. These exercises can be practiced by any musician through tapping quarter notes in one hand and the rhythm of each exercise in the other hand or tapping quarter notes with one’s foot and clapping the rhythms of each exercise.

Ari Hoenig and Johannes Weidenmueller’s books, *Intro to Polyrhythms: Contracting and Expanding Form Vol.1 & 2*, address the use of polyrhythms and metric modulations in the context of a jazz rhythm section playing common jazz forms. Though the book can technically be used by any instrument, most of the written and audio examples focus on applying the rhythmic concepts to the drumset and bass. However, they do include a section in the beginning of the book labeled “Practice Tips for Pianists” which lists methods for pianists to apply rhythmic concepts to the piano and develop left and right-hand independence.

One book addressing polyrhythms written specifically for piano is Jeffery Fineberg’s *Polymetric Puzzles - Exercises and Short Pieces for Piano and Keyboard*. Fineberg depicts polyrhythms as a type of musical puzzle that the keyboardist must solve.

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14 Reed, *Progressive Steps to Syncopation for the Modern Drummer*.
15 Hoenig and Weidenmueller demonstrate their rhythmic concepts over the twelve-bar blues form and AABA forms of songs such as “All the Things You Are,” “Take the A Train,” “So What,” and “I’ve Got Rhythm.”
through assembling the left and right-hand parts into a completed segment of music.\textsuperscript{16} Notes/scale degrees, intervals, melodic shapes, and hand motion (contrary or parallel) are assigned to specific rhythms for each hand throughout the book in a gradual increase of difficulty from one puzzle to the next. These numerous puzzles serve “to give the musician more opportunities to accomplish independence of the hands, using techniques that progressively increase in difficulty.”\textsuperscript{17} The puzzles do provide ample opportunity for pianists to practice playing various polyrhythms and rhythmic groupings simultaneously in each hand, and Fineberg is quite thorough in covering various rhythmic and linear combinations. However, the book functions essentially as a collection of written etudes and does not quite address the musical application of the skills and rhythmic independence gained from mastering the two hundred pages of rhythmic puzzles. This leaves it up to the musician to discover on his/her own how to apply these skills in a more practical and musical way.

These resources represent the bulk of the current non-percussion/drumset rhythmic literature available to musicians. While each of the previously mentioned books are valuable sources, there is no way that such a small number of books could cover all the possible subjects addressing the development, exploration, and improvement of rhythm. This point becomes more evident if the amount of literature addressing harmonic and melodic musical themes is compared to the short list of literature concentrating on rhythm. Furthermore, with the exception of the Hoenig and Weidenmueller book, one thing lacking in the existing rhythmic literature is a method of taking the rhythmic ideas and concepts addressed and applying them to real musical scenarios applicable to jazz.

\textsuperscript{16} Fineberg, \textit{Polymetric Puzzles: Exercises and Short Pieces for Piano and Keyboard}, 1.
\textsuperscript{17} Fineberg, 1.
musicians. In this study, the rhythmic material explored will be inspired by Afro-Cuban drumming patterns and grooves. The material will then be adapted to the piano and applied to improvisation, comping, and composition in ways which coincide with the piano’s rhythmic capabilities and relationship with the drums.

Afro-Cuban Drum Literature

Afro-Cuban music is rich with rhythmic content and places a strong emphasis on drums and percussion. Consequently, there is quite a bit of literature available that provides information on various grooves, rhythms, and patterns commonly used in the genre. More relevant to this study, there are several drum instructional/method books addressing the subject of Afro-Cuban drumming and Cuban clave-based rhythms. These include:

- *Afro-Cuban Coordination for Drumset: The Essential Method and Workbook*, by Maria-Martinez\(^\text{18}\)
- *Afro-Cuban Rhythms for Drumset*, by Frank Malabe and Bob Weiner\(^\text{19}\)
- *Conversations in Clave: The Ultimate Technical Study of Four-Way Independence in Afro-Cuban Rhythms*, by Horacio Hernandez\(^\text{20}\)
- *Funkifying the Clave: Afro-Cuban Grooves for Bass and Drums*, by Lincoln Goines and Robby Ameen\(^\text{21}\)

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\(^\text{21}\) Goines and Ameen, *Funkifying the Clave: Afro-Cuban Grooves for Bass and Drums*. 
• *The New Method for Afro-Cuban Drumming*, by Jimmy Branly

• *A New Way of Groovin’: Combing Jazz and Rumba Clave for a New Sound on the Drumset*, by Ignacio Berroa

• *A World of Rhythmic Possibilities*, by Dafnis Prieto

From the list of Afro-Cuban drumming resources, the books by Berroa and Prieto will be referenced most heavily in this study due to their relevance concerning the application of Afro-Cuban rhythmic language into jazz music. Prieto’s book offers many creative and challenging rhythmic possibilities, exercises, and concepts inspired from clave-based rhythms (namely the clave, cáscara, and 6/8 cowbell pattern) as well as influential drummers. Chapter seven of his book is entitled “Max in Clave,” which is dedicated to and draws inspiration from the great jazz drummer Max Roach. Berroa’s book has a narrower focus which predominantly constitutes juxtaposing the *Abakuá* clave (rumba clave based in triple subdivision), and the jazz swing pattern (also based in triple subdivision) against the same rhythmic figures and grooves/patterns. Ultimately, Berroa’s book trains the drummer to combine the clave and swing patterns together, interspersing the two at will while playing grooves or soloing.

**Afro-Cuban and “Latin Jazz” Piano Literature**

Although this paper is not a pedagogical guide to learning how to play an Afro-Cuban or “Latin Jazz” piano style, it should be mentioned that there are many resources which cover this topic. One excellent book which covers the history of Afro-Caribbean

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22 Branly, *A New Method for Afro-Cuban Drumming*. 
25 Prieto.
piano, reviews essential Afro-Cuban rhythms, and provides analysis of both traditional and modern examples of *montunos* from a variety of pianists is *101 Montunos* by Rebeca Mauleón-Santana.\(^{26}\) While there is an overlap in rhythmic content between this paper and Afro-Cuban piano method books, the purposes of each have distinct differences. Books such as *101 Montunos* provide pianists with the information and instruction needed to understand and fulfill the piano’s role within a specific genre of music, whereas this paper’s objective adapts similar Afro-Cuban rhythmic content to the piano to achieve mastery in rhythmic awareness and independence, namely in a modern jazz context.

It can be argued that Afro-Cuban and “Latin Jazz” method books typically do not directly explore the topics of rhythmic awareness and independence for pianists. Their focus lies on playing montunos and other pianistic idioms common to the genre, which typically involve the left-hand and right-hand playing the same rhythm simultaneously.\(^{27}\) Elaborating on this point, Hector Martignon, author of *Salsa Piano*, states: “The clearest and most obvious way a pianist outlines the clave structure is with octaves in the right hand. The left hand exactly doubles it rhythmically, and mostly, but not always, melodically.”\(^{28}\) Contrarily, this paper’s intention is to focus on developing the pianist’s ability to play two independent rhythms simultaneously through the rhythmic concepts explored as a means of encouraging creative freedom in performing different rhythmic ideas.


\(^{27}\) In Afro-Cuban music, a montuno is an ostinato melody, most often consisting of arpeggiated chords in syncopated patterns played by the piano. The montuno outlines the harmony and syncs rhythmically with the clave pattern being played.

The Clave

Since this paper’s research relies so heavily on Afro-Cuban rhythms, some background information on the clave’s rhythmic content and musical function is necessary. In his paper “The Afro-Cuban Abakuá: Rhythmic Origins to Modern Applications,” Donald Brooks Truly offers a detailed explanation of the importance of the clave in Abakuá and Afro-Cuban music:

The Abakuá rhythms, and most Afro-Cuban rhythms for that matter, are structured around a two-bar, five-note repetitive pattern known as the clave that is most commonly written in 4/4, cut time (alla breve), and 6/8. Regardless how it is written, it should always be heard and felt in a two feel. The clave, both an instrument and a rhythmic figure, is the single most important element of Abakuá rhythms in terms of phrasing and structure.29

The main purpose of clave is to hold rhythmic and melodic parts together; it is a point of reference. Many of the rumba styles are so rhythmically dense, with layered patterns and polyrhythms, that, without clave, they would be extremely difficult if not impossible to fit into place. In fact, clave is such a dominant force in Afro-Cuban music that even when it is not being physically played, it still exists and is felt.30

The clave gives the complex rhythmic soundscape of Afro-Cuban music a sort of musical anchor, providing a foundation and common rhythmic denominator for all the interlocking rhythmic cells being played.

There are two styles of clave: son and rumba. The only difference between the two is the displacement of the third note, as shown in Figure 1 below.

30 Truly, 43.
Son clave is associated with the dance styles of Cuban popular music, whereas the more syncopated rumba clave is associated with folkloric styles of Cuban traditional music.\textsuperscript{31} Due to its added syncopation and musical traits which will later be discussed, this paper will focus mainly on rumba clave and its rhythmic relationship with jazz.

Another important aspect of the clave which needs to be explained involves the terminology 3-2 and 2-3. In his book, \textit{A World of Rhythmic Possibilities}, Dafnis Prieto explains the meaning of terms 3-2 and 2-3 clave in the chapter “The Cáscara / The Clave, Their Relationship and Beyond.”

The terminology of the Clave being played as either “3-2” or “2-3” simply refers to the starting point of the four-beat Clave pattern, meaning that we can play the same pattern starting on the “3-side” or on the “2-side.” The basic way to analyze and understand this terminology is to divide the four-beat Clave in half. Then we can clearly see the two “sides” of the Clave pattern.\textsuperscript{32}

To illustrate Prieto’s explanation, included below are examples of the 3-2 and 2-3 clave, with each side clearly marked and the measure divided in half.

\textsuperscript{31} Truly, 42.
\textsuperscript{32} Prieto, \textit{A World of Rhythmic Possibilities}, 2016, 18.
Depending on the context, the clave can be felt and played in both duple and triple subdivisions. The discrepancy between the feel of the two subdivisions is what Truly refers to in his quote mentioning writing the clave in 4/4 (duple) and 6/8 (triple). Displayed below are three different ways of notating and thinking about rumba clave. Figure 2 is played and felt using duple subdivision while Figures 3 and 4 use triple subdivision. The quarter note pulse felt underneath the clave rhythm is written below each pattern as a reference.
Figure 2.5: Rumba Clave in Triple Subdivision (Abakuá Clave) Written in 4/4 Time

Figure 2.6: Rumba Clave in Triple Subdivision (Abakuá Clave) Written in 12/8 Time

It is important to note that Figures 2.5 and 2.6 are exactly the same rhythm notated in different time signatures, but Figure 2.4 is slightly different due to the spacing of the subdivisions. The clave in duple subdivision has a more “straight-eighth” feel. However, when heard with the underlying quarter note pulse, the rumba clave in triple subdivision has a certain “swing-like” characteristic similar to the ride cymbal swing pattern in jazz. It is for this reason that fusing rumba clave with the swing pattern and shuffle feel found in jazz works so well.

Importance of Clapping and Singing Rhythms

It seems to be universally agreed upon that singing and/or clapping the rhythmic material one is attempting to master is extremely beneficial. Many of the sources referenced in this review specifically mention the advantage of supplementing rhythmic
practice on one’s instrument with the clapping/vocalization of rhythm. Included below from are quotes from various authors/musicians on the subject.

Before you start playing any of these exercises on your instrument you should be able to clap, speak or sing them first. This helps you isolate the exercises and eliminates factors that could interfere, such as note choices or other technical aspects of your instrument, etc.\(^{33}\)

-Ari Hoenig

I would recommend to those experiencing difficulties with their independence and coordination in such exercises, that they sing (in this case) the stick-control part while clapping the desired steady pattern on the right hand (Clave, Cáscara, Swing, etc.).\(^{34}\)

It is important to understand that the core of rhythmic independence and coordination starts in our brain and not necessarily in our limbs. Whether consciously or unconsciously, it is in our brain where rhythmic independence and coordination initially happens.\(^{35}\)

Singing a rhythm with an intended and sonic meaning is not an option but almost mandatory by many great teachers of rhythm in the world.\(^{36}\)

-Dafnis Prieto

To establish and understand polyrhythms without using a particular instrument, I suggest the musician clap his hands or use one hand on a flat surface to play the counter rhythm while a metronome maintains the basic pulse. When working without a metronome, use both hands – one for the counter rhythm and the other for the basic pulse. Two different sounding surfaces are suggested if this last method is used. The musician may also clap or sing one rhythm while his foot taps out the second rhythm.\(^{37}\)

-Peter Magadini

In this book, the instrument you practice on is unimportant. You could use your primary instrument, be it drums, bass, sax, or kazoo, or you could tap your knees, clap your hands, or pound a podium with your shoe. Choose the mode of


\(^{35}\) Prieto, 62.

\(^{36}\) Prieto, 7.

Thus, the practice strategy of clapping/vocalizing rhythms will be incorporated into the methodology of this paper when addressing the process of developing rhythmic independence and incorporating Afro-Cuban drum patterns to the piano.

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38 Santiago, *Beyond the Metronome: Becoming an Inchronous Musician*, xv.
CHAPTER 3

METHOD

Overview

This paper offers an exploration into the rhythmic possibilities and rhythmic independence that can be gained by the jazz pianist through the study, analysis, adaptation, and practice of Afro-Cuban rhythms. As a result, a practice-led methodology of the process of assimilating this material will be created for pedagogical purposes. First, a study and analysis will be done on the rhythmic content and learning methods found in various Afro-Cuban drumming instructional books. Relevant musical content and useful pedagogical learning/practice strategies and exercises will then be extracted from these sources and presented in the paper. Finally, these rhythmic conceptions, patterns, and exercises will be adapted to the piano and practiced by following a step-by-step instructional method devised by the author. This method involves four sequential stages/levels of practice approaches which progressively increase in difficulty and complexity.

Practice Method of Assimilating Rhythmic Concepts & Material

1. Clapping and Singing the Rhythms

The first phase of learning involves internalizing the rhythmic content/concept through clapping and singing the rhythms, patterns, and/or grooves. Simultaneously clapping and singing two independent rhythms is a useful practice in rhythmic independence, and the benefits of this practice technique seems to be universally
encouraged by experts in the field. The content in this stage of learning will be presented through rhythmic notation, using either one or two staves. The majority of rhythmic material to be investigated involves independence between the two hands and thus will contain two independent rhythms, which when written will be juxtaposed on top of one another through two separate staves.

**Figure 3.1: Clapping 2-3 Rumba Clave & Singing Upbeats**

2. **Assigning Rhythmic Material to Left and Right Hand on the Piano**

Once the rhythmic material has been sufficiently learned through clapping and singing, the rhythms will be transferred to the piano and assigned to each hand, which will enable the pianist to practice rhythmic coordination between the right and left hand. The note choices will first be narrowed down to a single note, octave, or chord in each hand. Once learned, each rhythm will be swapped to the opposite hand to further enhance rhythmic coordination and independence.

For the sake of this paper, rhythmic coordination and independence can be interchanged with the term “rhythmic interdependence.” In his book, *The Art of Bop Drumming*, John Riley writes a very insightful paragraph on interdependence.

Independence is a misnomer because the last thing a drummer wants is his limbs to work independently. What you should work for is what I call interdependence,

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39 Refer back to CHAPTER 2 of this paper for direct quotes from musicians on this subject.
where each limb knows exactly what the others are doing and how they work together, not independently.  

**Figure 3.2:** Assigning Notes to Rhythms Practiced in Previous Example

![Assigning Notes to Rhythms](image)

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3. **Assign Melodic and/or Harmonic Content to Rhythmic Material in Each Hand.**

After rhythmic proficiency and independence is gained practicing the previous material, melodic and harmonic elements can be added. This phase of assimilation can be quite extensive and open-ended due to the vast amount of melodic and harmonic possibilities and combinations. An effective starting point involves incorporating scales and/or arpeggios, since they are melodic material commonly practiced by pianists.

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In addition to exploring scalar exercises, patterns, and other pianistic techniques, drum-specific patterns and exercises can be adapted and applied in the same way. Content to be explored in this fashion will include basic drum stick-control exercises and Afro-Cuban rhythms such as the clave, cascara, 6/8 cowbell pattern, and cinquillo. These rhythms can be paired with one another in different combinations as well as juxtaposed against different groupings of subdivisions (such as only the upbeats, as illustrated in the previous examples). The various rhythmic pairings/combinations will be assigned melodic content within a specific harmonic scale/mode or harmonic progression. To illustrate an example of adapting drum-specific exercises to the piano, the previously notated figure will be assigned ascending and descending melodic content modified to emulate a basic drum-stick control exercise commonly referred to as a paradiddle.41

When adapting right hand (R) and left hand (L) drum strokes to a single hand on piano,

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41 A paradiddle consists of two single strokes followed by a double stroke, i.e., RLRR or LRLL.
“R” will be designated to the right side of the hand and “L” to the left side. Thus, the left-hand thumb would be labeled “R” and the 5th finger “L,” while the inverse would be true for the right-hand.

**Figure 3.4a:** Paradiddle on Upbeats with 2-3 Rumba Clave – Descending Pattern

![Figure 3.4a](image)

**Figure 3.4b:** Rhythmic and Melodic Material Assigned to Opposite Hands

![Figure 3.4b](image)

**Figure 3.5a:** Paradiddle on Upbeats with 2-3 Rumba Clave - Ascending Pattern

![Figure 3.5a](image)

**Figure 3.5b:** Rhythmic and Melodic Material Assigned to Opposite Hands

![Figure 3.5b](image)
4. **Apply Content to Musical Context**

The purpose of assimilating these drumset-appropriated rhythmic concepts is to not only increase the pianist’s rhythmic awareness and independence, but also to find ways of incorporating the material into his/her playing. This can be accomplished through practicing the rhythmic material in the context of jazz compositions and standards from the Great American Songbook. An effective strategy to initiate this integration is through pairing the melodies of such compositions with the rhythmic patterns being practiced.

Below are two examples of the melody of the Miles Davis tune “Solar” paired with the 2-3 rumba clave. The first is a rhythmically simplified version of the melody, which may be easier to initially synchronize with the clave, and the second is a more accurate interpretation of how one might play the melody after gaining a higher level of rhythmic freedom and independence.

**Figure 3.6:** Simplified Melody of “Solar” (m. 1-4) Paired with 2-3 Rumba Clave
At the beginning stages of synchronizing the two rhythmic voices, the right-hand can play a fixed note, such as “C.” Once a level of comfort and proficiency has been achieved, the right-hand can outline the chord progression of the tune by playing the root of the chord, predetermined voicings transposed for each chord, arpeggios, a melodic pattern transposed to fit each chord, or a combination of all of these techniques, all the while keeping the clave rhythm intact. Furthermore, since the harmonic form of “Solar” is a variation of a C minor blues, the right hand can also play a C minor motif which remains static over the moving harmony. This technique results in a melodic ostinato which creates tension over the changing chords while also providing a fixed countermelody. The following two examples illustrate the application of arpeggios and a harmonically static melodic motif to the clave over the form of “Solar.”
Again, to achieve even greater independence, the hands can be swapped, placing the melody in the right hand and clave pattern in the left. This will create different textures and options which will be explored in greater detail later.

The final method of assimilating the rhythmic concepts explored in this paper will be through the practice of prevalent pedagogical improvisational strategies utilized in jazz education. These approaches will be conducted within the context of compositions and harmonic progressions commonly found within the jazz musician’s repertoire. The compositional and harmonic frameworks that will serve as a medium for improvisational implementation include: II – V – I progressions, turnarounds, twelve-bar blues, standards, and bebop, post-bop, and original compositions.

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42 The chords in this example are being anticipated by starting the arpeggio on the “and” of beat four, but could also be delayed by beginning on beat two of the following measure.
Furthermore, the improvisational strategies and approaches to be implemented in conjunction with the Afro-Cuban rhythmic content of this study will be comprised of exercises involving scales and arpeggios, patterns, and jazz solo transcription material. These strategies will be elaborated upon and explored further, but the same principles and methods used in previous examples can be applied to all the improvisational devices. Illustrated below are examples of a jazz solo transcription as well as a scalar-based exercise over a ii – V – i progression, both paired with rumba clave. The clave pattern in the left-hand is initially presented in rhythmic notation for clarity’s sake, but could be realized a number of different ways. In the jazz transcription example, three-note rootless chord voicings are joined with the clave rhythm, whereas a bassline pattern has been chosen for the ii – V – i progression.

Figure 3.10: Excerpt of Chick Corea’s Solo on “Matrix” Paired with 2-3 Rumba Clave

Figure 3.11: Rootless LH Voicings Applied to “Matrix” Solo Transcription Example
It should be noted that other Afro-Cuban rhythms such as the cáscara, cinquillo, and 6/8 cowbell pattern can be applied in a similar fashion to future examples, but for consistency’s sake the 2-3 rumba clave has been chosen to demonstrate continued application of the same rhythmic pattern to a variety of musical contexts and exercises. Additionally, it is important to state that the purpose of playing clave, or any other rhythms utilized in this paper, is not to become locked into only playing a fixed rhythm repeatedly, but to use the rhythmic awareness, independence, and other skills gained through this practice to play creative rhythmic ideas uninhibitedly. Like learning a pattern or a jazz solo, the end goal is not to use the material verbatim in every performance, but to learn to incorporate the desired elements of the solo or pattern into one’s own unique style of playing.
CHAPTER 4

RHYTHMIC INDEPENDENCE EXERCISES WITH RUMBA CLAVE

This chapter will focus on utilizing the rumba clave pattern in numerous ways to develop rhythmic independence for the jazz pianist. As outlined in the previous chapter, this process will take the pianist through four sequential stages which each increase in difficulty and complexity. The first stage involving clapping and singing rhythms is inspired by independence exercises found in drum books such as Hernandez’s *Conversations in Clave*, Berroa’s *A New Way of Groovin’*, and Prieto’s *A World of Rhythmic Possibilities*. The three subsequent stages involve assimilating these drum-inspired exercises into pianistic application.

Each chapter containing independence exercises will follow a similar format to this one, and, contingent on the rhythmic pattern used, be adjusted accordingly. Common themes for the left hand will include: adapting the rhythmic pattern to form a repeated bass figure/ostinato, adapting the rhythmic pattern into comping rhythms, adapting the rhythmic pattern to melodic ideas, and combining the various approaches so that the pianist is free to improvise and go between the pianistic devices depending his/her musical tastes and the musical context. The right hand will be used to juxtapose other rhythms and musical ideas against the fixed left-hand rhythm. Later, the roles of the two hands will be reversed and adapting the clave, and other rhythmic patterns, to the right hand will be addressed.

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43 Exercises are inspired specifically from the following sections/chapters of each book: Hernandez’s “Rhythmic Permutations with Rumba Clave,” Berroa’s “Part 1 – Ride Cymbal & Bass Drum Exercises,” and Prieto’s “Technically Speaking.”
To encourage a thorough understanding and eventual mastery of the rhythmic concepts being addressed, detailed visual rhythmic illustrations are provided to serve as both a reference and learning tool.

*Singing and Clapping Rhythms with 2-3 Rumba Clave*

The following exercises pair duple subdivisions with the 2-3 rumba clave, progressing from longer to shorter note values. The bottom staff containing the clave pattern should be clapped while the top staff is vocalized. Practice this at a slow tempo until familiarity is gained with the relationship between the two rhythms and it is possible to execute both rhythms accurately. To achieve greater rhythmic independence, swap the staves so the various subdivisions are now being clapped while the clave pattern is vocalized. Try tapping quarter notes with your foot and/or practicing along with a metronome while working on these rhythmic exercises, though be cognizant that the metronome is used to aid in rhythmic accuracy and not relied on as a crutch. A dotted line between the two staves illustrates when the two rhythms align with one another. Being aware of when this occurs can aid one’s rhythmic synchronization.

**Figure 4.1a:** 2-3 Rumba Clave with Half Notes on Beats 1 & 3
Figure 4.2a: 2-3 Rumba Clave with Quarter Notes on Beats 2 & 4

Figure 4.3a: 2-3 Rumba Clave with Quarter Notes on Beats 1 & 3

Figure 4.4a: 2-3 Rumba Clave with Quarter Notes on Beats 2 & 3

Figure 4.5a: 2-3 Rumba Clave with Quarter Notes on Beats 3 & 4
Figure 4.6a: 2-3 Rumba Clave with Quarter Notes on Beats 4 & 1

Figure 4.7a: 2-3 Rumba Clave with Eighth Notes on Beat 1

Figure 4.8a: 2-3 Rumba Clave with Eighth Notes on Beat 2

Figure 4.9a: 2-3 Rumba Clave with Eighth Notes on Beat 3

Figure 4.10a: 2-3 Rumba Clave with Eighth Notes on Beat 4
Figure 4.11a: 2-3 Rumba Clave with Eighth Notes on Each Beat

Figure 4.12a: 2-3 Rumba Clave with Eighth Notes on Off-Beats

Figure 4.13a: 2-3 Rumba Clave with Sixteenth Notes on Beat 1

Figure 4.14a: 2-3 Rumba Clave with Sixteenth Notes on Beat 2
**Figure 4.15a:** 2-3 Rumba Clave with Sixteenth Notes on Beat 3

**Figure 4.16a:** 2-3 Rumba Clave with Sixteenth Notes on Beat 4

**Figure 4.17a:** 2-3 Rumba Clave with Sixteenth Notes on 1\textsuperscript{st} & 2\textsuperscript{nd} Partial of the Beat

**Figure 4.18a:** 2-3 Rumba Clave with Sixteenth Notes 2\textsuperscript{nd} & 3\textsuperscript{rd} Partial of the Beat
**Figure 4.19a:** 2-3 Rumba Clave with Sixteenth Notes on 3\textsuperscript{rd} & 4\textsuperscript{th} Partial of the Beat

![2-3 Rumba Clave with Sixteenth Notes on 3\textsuperscript{rd} & 4\textsuperscript{th} Partial of the Beat](image)

**Figure 4.20a:** 2-3 Rumba Clave with Sixteenth Notes on 4\textsuperscript{th} & 1\textsuperscript{st} Partial of the Beat

![2-3 Rumba Clave with Sixteenth Notes on 4\textsuperscript{th} & 1\textsuperscript{st} Partial of the Beat](image)

**Figure 4.21a:** 2-3 Rumba Clave with Sixteenth Notes on 2\textsuperscript{nd} & 4\textsuperscript{th} Partial of the Beat

![2-3 Rumba Clave with Sixteenth Notes on 2\textsuperscript{nd} & 4\textsuperscript{th} Partial of the Beat](image)

**Figure 4.22a:** 2-3 Rumba Clave with Common Montuno Rhythm

![2-3 Rumba Clave with Common Montuno Rhythm](image)
Applying Left-Hand Bass Figures to the Clave Rhythm

In this stage, notes will now be assigned to the exercises previously illustrated. To first begin assimilating the rhythmic material to the piano, the pianist should choose a single note in each hand and practice playing each exercise that way. To avoid redundancy and save space, this process will not be illustrated. One can simply revisit the previous rhythmic exercises and assign the note C3 to the bottom staff (left hand) and C4 to the top (right hand). Once proficiency is gained doing this, it will be significantly easier to master the exercises in this section.

Left-hand ostinatos/bass figures are prime examples of a practical pianistic device which can be paired with the clave rhythm. Allocating the clave rhythm to a left-hand bass figure allows the pianist to simultaneously orchestrate harmony and create a syncopated groove. Doing this in the left hand while improvising single-line and/or chordal ideas in the right hand requires a great deal of rhythmic independence. This can be done over static harmony, such as a pedal point or modal composition, or harmonic progressions of varying complexity. This section will use static harmony, in this case C minor, and assign only one or two notes in the right hand to fit the rhythms from the previous section. This will allow the pianist to focus on coordinating the rhythms of both
hands together, paving the way for further independence required of improvising melodic figures in the right hand.

Even within the parameters of a static C minor tonality, there are many melodic possibilities that can be realized for a bass figure. For the two-handed exercises, a single bass melody is used throughout for the sake of clarity. However, additional bass figures are included separately below the exercises. The reader is encouraged to insert all the alternate bass figures to replace the left-hand part in the ensuing exercises. This will allow for more options and increased independence while improvising, and perhaps inspire the pianist to come up with additional ideas of his/her own.

For these examples, the bass motif lasts one measure and repeats with each reiteration of the clave. Since the rhythm will from now be played on the piano, it is important to note that the left hand can play the figure using short, more percussive articulation, connect the notes together playing more legato, or use a multitude of variations/combinations of articulations. The purpose for pointing this is out is to make the pianist aware that the way one plays these rhythms can provide quite a variety of sound and create different musical effects. For all the exercises, the clave rhythm will be notated as it has been thus far. However, to demonstrate the difference between playing “percussive” and “legato” versions of the rhythm, notated examples are illustrated below. In each example the clave is written first in a purely rhythmic fashion, followed by a version to which bass notes have been assigned. The pianist is encouraged to practice all the exercises using both styles of playing, even though both versions will not be notated. The bass figure in Figure 4.1b will be used for all the independence exercises in this
section. As previously stated, alternate melodic variations of the bass figure are provided following the exercises.

**Figure 4.1b: 2-3 Rumba Clave Rhythm “Percussive” Version**

![Figure 4.1b: 2-3 Rumba Clave Rhythm “Percussive” Version](image1)

**Figure 4.2b: 2-3 Rumba Clave Rhythm “Legato” Version**

![Figure 4.2b: 2-3 Rumba Clave Rhythm “Legato” Version](image2)

The two-handed piano exercises follow a similar progression as the rhythmic exercises, starting with longer note values and progressing to shorter ones. The right-hand material has been limited to the root and the fifth of the chord to prioritize rhythmic coordination between the two hands and allow the pianist to focus on the left-hand ostinato. Other notes from the chord/scale can be used in place of the root and fifth, if so desired. The next section will explore more melodic possibilities in the right hand, but for these exercises has been kept simple on purpose.
Figure 4.3b: Quarter Notes Played Over Bass Clave Motif

Figure 4.4b: Quarter Notes Played on Beats 1 & 2 Over Bass Clave Motif

Figure 4.5b: Quarter Notes Played on Beats 2 & 3 Over Bass Clave Motif

Figure 4.6b: Quarter Notes Played on Beats 3 & 4 Over Bass Clave Motif
Figure 4.7b: Quarter Notes Played on Beats 4 & 1 Over Bass Clave Motif

Figure 4.8b: Quarter Note Paradiddle Over Bass Clave Motif

Figure 4.9b: Eighth Notes Played Over Bass Clave Motif

Figure 4.10b: Eighth Notes Played on Beats 1 & 2 Over Bass Clave Motif
Figure 4.11b: Eighth Notes Played on Beats 2 & 3 Over Bass Clave Motif

Figure 4.12b: Eighth Notes Played on Beats 3 & 4 Over Bass Clave Motif

Figure 4.13b: Eighth Notes Played on Beats 4 & 1 Over Bass Clave Motif

Figure 4.14b: Eighth Note Paradiddles Played Over Bass Clave Motif
Figure 4.15b: Eighth Notes Played on Off-Beats Over Bass Clave Motif

Figure 4.16b: Paradiddle Played on Off-Beats Over Bass Clave Motif

Figure 4.17b: Sixteenth Notes Played Over Bass Clave Motif

Figure 4.18b: Sixteenth Notes Played on Beats 1 & 2 Over Bass Clave Motif
Figure 4.19b: Sixteenth Notes Played on Beats 2 & 3 Over Bass Clave Motif

Figure 4.20b: Sixteenth Notes Played on Beats 3 & 4 Over Bass Clave Motif

Figure 4.21b: Sixteenth Notes Played on Beats 4 & 1 Over Bass Clave Motif

Figure 4.22b: Sixteenth Notes Played on 1st & 2nd Partial of the Beat Over Clave Motif
Figure 4.23b: Sixteenth Notes Played on 2\textsuperscript{nd} & 3\textsuperscript{rd} Partial of the Beat Over Clave Motif

Figure 4.24b: Sixteenth Notes Played on 3\textsuperscript{rd} & 4\textsuperscript{th} Partial of the Beat Over Clave Motif

Figure 4.25b: Sixteenth Notes Played on 4\textsuperscript{th} & 1\textsuperscript{st} Partial of the Beat Over Clave Motif

Figure 4.26b: Sixteenth Notes Played on 2\textsuperscript{nd} & 4\textsuperscript{th} Partial of the Beat Over Clave Motif
Figure 4.27b: Paradiddles Played on 2nd & 4th Partial of the Beat Over Clave Motif

Figure 4.28b: Dotted Eighth Notes Played Over Clave Motif

Figure 4.29b: Melodic Variation of Previous Exercise

Figure 4.30b: Common Montuno Rhythm Played Over Bass Clave Motif
When playing through these figures, note which rhythms prove to be more
difficult and focus more time on those. These exercises should be practiced slowly at
first, then gradually sped up. Coordinating the two hands with one another and focusing
on rhythmic accuracy is the goal of this stage of assimilating Afro-Cuban rhythms to the
piano. The next step towards a more musical application of rhythmic independence is to
begin adding more right-hand melodic involvement. Having the left-hand rhythmic
pattern mastered will allow the pianist to shift more attention to the right hand, making it
possible to play melodies and improvise in rhythmic synchronicity between both hands.

Alternate Variations of C Minor Bass Figures Using 2-3 Rumba Clave Rhythm

In both the previous and following exercises, the pianist should practice
interchanging the original bass figure provided with the variations (4.1c – 4.11c) listed
below. This process should become easier with each new variation practiced since the
rhythm remains constant and only a few notes change. Note that the last four variations
switch chord qualities from minor to dominant and major seventh chords.

Figure 4.1c: Melodic Variation of Bass Clave Motif

Figure 4.2c: Melodic Variation of Bass Clave Motif
Figure 4.3c: Melodic Variation of Bass Clave Motif

Figure 4.4c: Melodic Variation of Bass Clave Motif

Figure 4.5c: Melodic Variation of Bass Clave Motif

Figure 4.6c: Melodic Variation of Bass Clave Motif

Figure 4.7c: Melodic Variation of Bass Clave Motif

Figure 4.8c: Melodic Variation of Bass Clave Motif
Figure 4.9c: Melodic Variation of Bass Clave Motif

Figure 4.10c: Melodic Variation of Bass Clave Motif

Figure 4.11c: Melodic Variation of Bass Clave Motif
CHAPTER 5
ENHANCING MELODIC CONTENT IN THE RIGHT HAND

Once the rhythmic coordination between the two hands becomes comfortable, the pianist can begin to enhance the melodic content played in the right hand. This chapter addresses this process through exploring two varying approaches. The first approach concentrates on physical aspects, utilizing melodic patterns/shapes designed to increase hand independence and technical proficiency. The second approach explores the use of rhythmic development and variation as a basis for improvisational ideas. Thus, chapter five will organize into two sections, each dedicated to its respective approach.

SECTION ONE:
Assigning melodic patterns to the previous rhythmic exercises.

This section will pair two, three, and four-note melodic shapes with the rhythms previously assigned to the right hand. The melodic motif will first be presented starting on the beat. After this initial pattern becomes comfortable, rhythmic permutations of the figure starting on various parts of the beat will be practiced one at a time. Each melodic shape in this section is formed by using notes from the C Harmonic minor scale, thus all the following exercises are diatonic. As a result, all the examples can be easily transposed to other keys and/or adapted to other types of scales, such as major, harmonic major, melodic minor, diminished, and whole tone.

The first two examples, ascending 2nds and 3rds, have been taken through each rhythmic permutation in order to provide the reader with clear steps on how to practice these exercises. The remaining melodic shapes are illustrated using only the initial iteration of the pattern starting on the beat. However, each should be taken through the
remaining permutations, as shown through the first two examples. When practicing these exercises, note that a variation of the original bass figure is being used throughout chapter five.

**Figure 5.1a:** Two-Note Ascending 2\textsuperscript{nds} Melodic Shape in C Minor

![Two-Note Ascending 2\textsuperscript{nds} Melodic Shape in C Minor](image)

**Figure 5.1b:** Ascending 2\textsuperscript{nds} Melodic Shape Played on Off-Beats

![Ascending 2\textsuperscript{nds} Melodic Shape Played on Off-Beats](image)

**Figure 5.1c:** Ascending 2\textsuperscript{nds} Melodic Shape Played as Eighth Notes

![Ascending 2\textsuperscript{nds} Melodic Shape Played as Eighth Notes](image)
Figure 5.1d: Ascending 2nds Melodic Shape Played on the First Two Sixteenth Notes

Figure 5.1e: Ascending 2nds Melodic Shape Starting on the 2nd Partial of the Beat

Figure 5.1f: Ascending 2nds Melodic Shape Starting on the 3rd Partial of the Beat

Figure 5.1g: Ascending 2nds Melodic Shape Starting on the 4th Partial of the Beat
Figure 5.1h: Ascending 2nd Melodic Shape Played on the 2nd & 4th Partial of the Beat

Figure 5.1i: Ascending 2nd Melodic Shape Played as Dotted Eighth Notes

Figure 5.2a: Two-Note Ascending 3rd Melodic Shape in C Minor

Figure 5.2b: Ascending 3rd Melodic Shape Played on Off-Beats
Figure 5.2c: Ascending 3\textsuperscript{rd}s Melodic Shape Played as Eighth Notes

Figure 5.2d: Ascending 3\textsuperscript{rd}s Melodic Shape Played on First Two Sixteenth Notes

Figure 5.2e: Ascending 3\textsuperscript{rd}s Melodic Shape Starting on the 2\textsuperscript{nd} Partial of the Beat

Figure 5.2f: Ascending 3\textsuperscript{rd}s Melodic Shape Starting on the 3\textsuperscript{rd} Partial of the Beat
Figure 5.2g: Ascending 3\textsuperscript{rd}s Melodic Shape Starting on the 4\textsuperscript{th} Partial of the Beat

Figure 5.2h: Ascending 3\textsuperscript{rd}s Melodic Shape Played on the 2\textsuperscript{nd} & 4\textsuperscript{th} Partial of the Beat

Figure 5.2i: Ascending 3\textsuperscript{rd}s Melodic Shape Played as Dotted Eighth Notes

Observing the steps laid out in the previous two examples (5.1 and 5.2), the subsequent melodic shapes should be practiced the same way. Each notated pattern begins on the beat and should gradually be taken through each rhythmic permutation previously explored. The examples are notated in sixteenth note subdivision so that the repeated pattern is easy to visually identify and displace to other parts of the beat. As a
reference, the rhythmic permutations are listed below and involve playing the motif using the following rhythms:

- Quarter Notes
- Off-Beats
- Eighth Notes
- Sixteenth notes starting on the 2nd partial of the beat
- Sixteenth notes starting on the 3rd partial of the beat
- Sixteenth notes starting on the 4th partial of the beat
- Sixteenth notes on the 2nd and 4th partial of the beat
- Dotted 8th note groupings
- Cinquillo Rhythm

It should be noted that the following examples are but some of the possible intervallic/melodic shapes and rhythmic possibilities which can be practiced, and the pianist is encouraged to explore additional melodic and rhythmic ideas. Furthermore, the following examples represent only one realization of each melodic shape, of which there are many possibilities. Like the previous examples, these melodic figures are all taken from notes of the C Harmonic minor scale, and include the following diatonic shapes:

- 2nds
- 3rds
- 6ths
- Triads

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44 The term “Off-Beats” refers to eighth notes played on the “and” of each beat, or the second eighth note of every beat.
• Seventh chords

A note to the pianist: each pattern should first be practiced slowly in the right hand before incorporating both hands together.

**Figure 5.3:** Two-Note Descending 2nds Melodic Shape

**Figure 5.4:** Two-Note Descending 3rds Melodic Shape

**Figure 5.5:** Two-Note Descending 6ths Melodic Shape
Figure 5.6: Two-Note Descending Broken Triad Melodic Shape

Figure 5.7: Two-Note Ascending 6th Melodic Shape

Figure 5.8: Two-Note Ascending Broken Triad Melodic Shape

Figure 5.9: Three-Note Ascending 2nds Melodic Shape
**Figure 5.10:** Three-Note Ascending 3rds Melodic Shape

**Figure 5.11:** Three-Note Descending 2nds Melodic Shape

**Figure 5.12:** Three-Note Descending 3rds Melodic Shape

**Figure 5.13:** Four-Note Ascending Diatonic Triads Melodic Shape
Figure 5.14: Four-Note Descending Diatonic Triads Melodic Shape

Figure 5.15: Four-Note Ascending Diatonic Seventh Chords Melodic Shape

Figure 5.16: Four-Note Ascending Diatonic Seventh Chords Variation Melodic Shape

Figure 5.17: Four-Note Descending Diatonic Seventh Chords Melodic Shape
Assimilating these melodic patterns into the pianist’s muscle memory and musical arsenal help alleviate the disparity which occurs between one’s cognitive musical ideas and the physical execution of those ideas. Furthermore, technical proficiency of these exercises grants the pianist a level of freedom and effortlessness that lowers the amount of mental exertion required to navigate around the keyboard. Acquiring this digital dexterity allows the pianist to reallocate that percentage of mental focus to improvisation and musical interaction.

SECTION TWO:

*Using rhythm as a creative impetus for motivic development, variation, and embellishment.*

This section explores the use of rhythmic embellishment and variation to enhance and develop simple melodic ideas. The purpose of the following examples is to investigate rhythmic possibilities one can use to develop a musical idea when improvising. The examples will use a simple two-bar melodic phrase written in quarter notes. This melody will serve as a constant theme from which rhythmic variations and embellishments will be created. While notes will be added and displaced, each example
retains the original theme within the variation. In the examples where the theme is heavily embellished and/or displaced, most, if not all, of the notes of the theme are given accents. These accented notes can also be thought of as rhythmic “landing points” within each phrase.

When improvising, it can be helpful to mentally assign specific notes and/or parts of the beat as landing points. This mental strategy can help one keep his/her place in the measure when playing syncopated rhythms, while at the same time hone one’s awareness to what beat (or part of the beat) they begin and end each musical phrase. In the following examples, the pianist should take note where these landing points occur. This strategy increases rhythmic awareness of not only the accuracy of the rhythm in the right hand, but also its relationship with the clave being played in the left hand. As with the previous exercises, the pianist is encouraged to come up with alternate melodic realizations of his/her own.

**Figure 5.19a: Simple Quarter Note Melodic Motif**
Figure 5.19b: Rhythmic Permutation of Quarter Note Motif

\[ C_m \]

Figure 5.19c: Realization of Previous Rhythmic Permutation

\[ C_m \]

Figure 5.19d: Rhythmic Permutation of Quarter Note Motif

\[ C_m \]

Figure 5.19e: Realization of Previous Rhythmic Permutation

\[ C_m \]
Figure 5.19f: Rhythmic Permutation of Quarter Note Motif

Figure 5.19g: Realization of Previous Rhythmic Permutation

Figure 5.19h: Rhythmic Permutation of Quarter Note Motif

Figure 5.19i: Realization of Previous Rhythmic Permutation
Figure 5.19j: Rhythmic Permutation of Quarter Note Motif

Figure 5.19k: Realization of Previous Rhythmic Permutation

Figure 5.19l: Rhythmic Permutation of Quarter Note Motif

Figure 5.19m: Realization of Previous Rhythmic Permutation
Figure 5.19n: Rhythmic Permutation of Quarter Note Motif

Figure 5.19o: Realization of Previous Rhythmic Permutation

Figure 5.19p: Rhythmic Permutation of Quarter Note Motif

Figure 5.19q: Realization of Previous Rhythmic Permutation
Practicing the two approaches investigated in this chapter gives the pianist an ample variety of rhythmic and melodic material to synchronize with the left-hand clave figure. After working through the numerous exercises of juxtaposed rhythms/melodies against the left-hand ostinato, the pianist will discover a marked improvement of his/her rhythmic independence. As emphasized before, these examples are but a template of the process one should take to achieve greater rhythmic independence. These exercises could have just as easily been written for any other key or chord quality. Therefore, mastering the previous exercises should not only allow the pianist to accurately play each figure, but also empower him/her with the knowledge of how to adapt and apply these rhythmic concepts to other musical scenarios. Before moving on to the next chapter, the pianist is encouraged to pair the alternate bass figures with the right-hand material, try some of the examples in different keys, and follow the process laid out in section two of this chapter with a new melodic theme of their choosing.
CHAPTER SIX
HARMONIC PROGRESSIONS AND PRACTICAL APPLICATION

After practicing last chapter’s content in other keys and/or chord qualities, the next logical step is to transition from static harmony to harmonic progressions. Initially, this will be done using chord progressions commonly found in jazz, such as the ii – V – i progression, and ultimately culminate in playing over the entire harmonic forms of jazz compositions.

To begin this process, various possible left-hand realizations of a ii – V – i played in C minor are illustrated below. Similar to the previous examples, the bass figures use the 2-3 rumba clave rhythm and are in the key of C minor.

**Figure 6.1a:** Possible ii – V – i Bass Figure in C Minor

**Figure 6.1b:** Possible ii – V – i Bass Figure in C Minor

**Figure 6.1c:** Possible ii – V – i Bass Figure in C Minor
Once the left hand becomes comfortable changing between chords while maintaining the clave rhythm, the approaches from the last two chapters can be applied to the right hand within this context. To stay consistent, technical exercises from chapter 45 The 3rd beat of measure two could be changed to have an A Natural in the chord to fit the C melodic minor scale or a Cmi6 chord.
five will be illustrated first, and then a simple melodic theme written over the progression will be explored. As stated before, the right hand should be practiced slowly at first before adding the left hand. To avoid some redundancy, not all of the technical exercises will be illustrated. Instead, only one rhythmic pattern will be paired with each melodic pattern. However, the pianist should follow the same process discussed in chapter five and practice each right-hand melodic and rhythmic combination over the chord progression.

Since multiple chords have now been introduced, it is possible to use a combination of multiple scales/modes which all work over the progression. As a default, the C harmonic minor scale will be used for the majority of these examples. In the examples where this is not the case, there will be a footnote indicating the alternate scales/modes being used.

**Figure 6.2a:** Ascending 2nds Played on the 1st and 2nd Partial of the Beat
Figure 6.2b: Ascending 3\textsuperscript{rd}s Played on the 3\textsuperscript{rd} and 4\textsuperscript{th} Partial of the Beat

Figure 6.2c: Ascending 6\textsuperscript{th}s Played on the 2\textsuperscript{nd} and 3\textsuperscript{rd} Partial of the Beat

Figure 6.2d: Descending 2\textsuperscript{nd}s Played on the 1\textsuperscript{st} and 2\textsuperscript{nd} Partial of the Beat

Figure 6.2e: Descending 3\textsuperscript{rd}s Played with Montuno Rhythm
Figure 6.2f: Descending 6ths Played on the 2nd and 4th Partial of the Beat

Figure 6.2g: Ascending Scale Played with Cinquillo Rhythm

Figure 6.2h: Ascending Diatonic Triads Starting on Each Beat

Figure 6.2i: Descending Diatonic Triads Starting on 2nd Partial of the Beat
Figure 6.2j: Ascending Diatonic Arpeggios

Figure 6.2k: Descending Diatonic Arpeggios

Figure 6.2l: Ascending Diatonic Seventh Chords

Figure 6.2m: Descending Diatonic Seventh Chords
All the examples up to this point are based on diatonic scalar patterns. Since a chord progression is now being outlined by the left hand, the pianist can similarly outline the chords in the right-hand lines. This can be done by arpeggiating the chords and their inversions. The following examples pair the rhythmic patterns previously used with arpeggiated triads and seventh chords. These melodic shapes outline the harmony in a way slightly different from purely scalar patterns, thus providing the pianist with more melodic options.

Figure 6.3a: Arpeggiated Triads of the Chord Progression Played as Dotted Eighth Notes

Figure 6.3b: Arpeggiated Seventh Chords Played Using Montuno Rhythm
The pianist can further expand his/her melodic options by arpeggiating the notes of specific chord voicings. Since there are numerous ways of voicing chords, this approach can lead to many creative melodic ideas. Below is one example of the voicings a pianist might use while comping a ii – V – i in C minor.

The following examples use the voicings of figure 6.4 as melodic shapes to outline the harmonic progression. The pianist is encouraged to take other voicings he/she may use and try the same approach. In a similar fashion, these exercises can be transposed to ii – V – i progressions in other keys. Being proficient in these melodic approaches (scalar patterns, arpeggios/inversions, and chordal shapes) allows the pianist to allocate more mental attentiveness towards rhythm. These three types of melodic devices can be used as a foundation to which rhythmic patterns and permutations can be applied. This, in turn, builds rhythmic independence, which is why various melodic approaches are investigated in this chapter.
Figure 6.5a: Arpeggiated Chord Voicings Played as Sixteenth Notes

Figure 6.5b: Previous Example with Opposite Melodic Direction

Figure 6.5c: Arpeggiated Chord Voicings Melodic Variation

Figure 6.5d: Previous Example with Opposite Melodic Direction
Pairing the previous scalar exercises, chord voicings, and melodic shapes with the numerous rhythmic permutations explored equips the pianist with a substantial amount of material which can be used in an improvisatorial setting. This material can be applied to the harmonic progressions of jazz standards, as well as many other forms and styles of music. At the initial phase of this process, it is helpful to choose songs composed of simple chord progressions and then incrementally advance to more complex compositions.

Since all the examples thus far have been in the key of C minor, two idyllic pieces to begin working on are Kenny Dorham’s “Blue Bossa” and Miles Davis’s “Solar.” Both pieces are in C minor, have a short form, and involve commonly used harmonic progressions, such as ii – V – i’s. Before putting the hands together, the left-hand part should be practiced independently. Illustrated below are two examples of possible bass
figures (taken from or inspired by previous examples) written over the harmonic progression of each piece.

As done with previous examples, the left-hand clave pattern is notated as a one-bar phrase using sixteenth notes rather than a two-bar phrase using eighth notes. Notating the clave in this way makes the pattern clear since every iteration of the rhythm is contained within one measure, rather than two. However, this shortens the amount of measures by half when writing out the form of “Blue Bossa” and “Solar” since each two-bar eighth note phrase has been converted to a single measure written as sixteenth notes. To clarify this point, versions of the bass figures written in eighth notes are provided for figures 6.6a and 6.6c.

**Figure 6.6a:** Possible Realization of Left-Hand 2-3 Clave Bass Over “Blue Bossa”
Figure 6.6aa: Previous Example Notated Using Eighth Notes

Figure 6.6b: Alternate Realization of Left-Hand 2-3 Clave Bass Over “Blue Bossa”
Figure 6.6c: Possible Realization of Left-Hand 2-3 Clave Bass Over “Solar”

Figure 6.6cc: Previous Example Notated Using Eighth Notes

Figure 6.6d: Alternate Realization of Left-Hand 2-3 Clave Bass Over “Solar”
Once the left-hand part can be played comfortably, the right-hand melodic and rhythmic ideas previously explored can be practiced over the harmonic form of each piece. Since this process has been documented extensively already, each pattern will not be re-illustrated. Instead, samples of possible solos written in the form of etudes will be used to demonstrate the application of material from previous chapters to the two jazz pieces. Each etude will utilize multiple rhythmic and melodic concepts covered thus far.
Figure 6.7a: Sample Solo Written Over the Form of “Blue Bossa”

1. Cinquillo rhythm paired with scalar pattern.
2. Arpeggiated chord voicing played starting on 2nd partial of each beat.
3. Arpeggiated chord voicings played using sixteenth notes.
4. Cáscara rhythm paired with arpeggiated chord voicing.
5. Arpeggiated chord voicing played on 2nd and 4th partials of the beat.
6. Arpeggiated chord voicings played using dotted eighth note rhythm.
Figure 6.7b: Alternate Solo Written Over the Form of “Blue Bossa”

1. Sixteenth note scalar pattern.
2. Cinquillo rhythm paired with arpeggiated chord voicing.
3. Chord voicings played on 2\textsuperscript{nd} and 4\textsuperscript{th} partials of the beat.
4. Dotted eighth note rhythm.
5. Arpeggiated chord voicings played as sixteenth notes.
6. Sixteenth note melodic figure created from Db major scale.
7. Descending 2\textsuperscript{nd} melodic figure paired with rhythmic pattern.
8. Arpeggiated chord voicing with rhythmic landing point on 4\textsuperscript{th} partial of the beat.

The two solos written over the form of “Blue Bossa” utilize various melodic patterns, shapes, and rhythms. This style is reflective of the material covered in approach #1 of
chapter five. Contrastingly, the two solos written over the form of “Solar” focus on developing one rhythmic and melodic idea, reflective of approach #2 from chapter five. Both approaches are important to practice and require a great deal of rhythmic independence to execute in sync with the clave rhythm played in the left hand.

**Figure 6.8a: Sample Motivic Solo Written Over the Form of “Solar”**

1. Melodic and rhythmic motif (2\textsuperscript{nd} and 4\textsuperscript{th} partial of the beat) developed throughout chorus.
2. End of motif with sixteenth note line leading to next chorus.
Figure 6.8b: Alternate Motivic Solo Written Over the Form of “Solar”

1. Montuno rhythm paired with melodic motif composed of 6ths developed throughout chorus.

These type of rhythmic independence exercises are ideal for developing solo piano techniques since the left hand fulfills the role of the rhythm section. Changing the note choices of the left hand to quartal voicings and open fifths in a comping style reminiscent of McCoy Tyner allows the pianist to transfer this same rhythmic language to ensemble playing. The right-hand material may need to be adjusted accordingly since this left-hand comping style occupies a different range of the instrument than the bass figures and may interfere with melodic lines played in the mid-to-low range of the piano.
Figure 6.9a: First “Blue Bossa” Solo 8va with McCoy Tyner Left-Hand Comping Style

Playing every note of the clave rhythm each measure in this style makes the left-hand comping a bit busy and very technically demanding. Omitting some parts of the pattern and replacing them with longer held note values creates a more playable, and more musical, use of this comping style. Below is an example what the left hand could play underneath the solo of the previous example.
The sample solos are designed to showcase a variety of patterns, rhythms, and approaches the pianist can incorporate into his/her playing. These approaches can be applied to most, if not all, jazz standards, given the tempo is within a playable/practical range. The pianist is encouraged to apply these ideas to other jazz compositions, write out his/her own solos and left-hand figures, and practice improvising in this style. This
process will help assimilate rhythmic ideas and rhythmic independence into one’s everyday playing, especially when practiced over pieces which are frequently performed.
CHAPTER SEVEN
COMPING PATTERNS IN THE RIGHT HAND OVER LEFT-HAND CLAVE

For the jazz pianist, comping can be considered just as an important of a skill to
develop as the ability to improvise a solo. In fact, oftentimes a pianist will spend more
time comping during a performance than soloing. It is for this reason that the current
chapter explores how the rhythmic material covered can be applied to comping. Since
there is already a plethora of published material covering voicings and other comping
techniques, the focus of this chapter centers around Afro-Cuban rhythms and the
rhythmic relationship between the two hands rather than note choice.

One interesting comping possibility the pianist can explore is layering other
Afro-Cuban rhythms in the right hand on top of the left-hand clave rhythm. To explore
this idea, two standard Afro-Cuba rhythmic patterns, the cáscara and cinquillo, will be
used. Since rumba clave and both these patterns have some rhythmic overlap, the notes
which align together will be omitted from the right hand. This provides more time
between notes played in the right hand, requires a high level of rhythmic awareness, and
creates a rhythmic effect between the two hands so each plays off the rhythm of the other.
When using this method, the two hands never play at the same time.
**Figure 7.1a:** Relationship between 2-3 Rumba Clave and 2-3 Cáscara Pattern

**Figure 7.1b:** 2-3 Rumba Clave and Cáscara; Aligned Notes Omitted from Right Hand

**Figure 7.1c:** Resulting Rhythm Created in Right Hand

**Figure 7.2a:** Relationship between 2-3 Rumba Clave and Cinquillo Pattern
To begin practicing this comping method on the piano, a two-bar phrase of C minor has been adapted to the rhythms, and a root position C minor triad assigned to the notes played in the right hand. The pianist should first practice playing the complete rhythmic pattern in the right hand against the left-hand clave rhythm, listening to the relationship between the two patterns and noting which parts of the right-hand pattern align with the left hand. Once this has become familiar, convert the notes of the right hand that align with the left-hand clave to rests. The resulting rhythm provides the pianist with a syncopated figure in the right hand, while keeping the original rhythm intact between both hands. While practicing the right-hand rhythm, it can be helpful to sing the original cáscara or cinquillo pattern to oneself, and if played accurately, the pianist should still be able to hear the original pattern being played between the two hands.
Figure 7.3a: Relationship between 2-3 Rumba Clave and Cáscara Pattern

Figure 7.3b: 2-3 Rumba Clave and Cáscara; Aligned Notes Omitted from Right Hand

Figure 7.3c: Resulting Rhythm Created in Right Hand

Figure 7.4a: Relationship between 2-3 Rumba Clave and Cinquillo Pattern
Once the rhythmic relationship between the two hands becomes comfortable, more practical applications of the comping patterns can be practiced. Continuing with the previous methodology, this can be achieved first through applying the rhythmic ideas to ii – V – i progressions and then to the entire harmonic forms of jazz compositions. Any chord voicings can be used during this process, though some will sound better than others, given the context. The following examples demonstrate a variety of possible voicing styles paired with the previous two right-hand rhythmic figures.
Figure 7.5b: Cáscara Comping Pattern with Montuno-Style Voicings

Figure 7.5c: Cáscara Comping Pattern Combining Single Notes and Block Chords

Figure 7.5d: Cáscara Comping Pattern Combining Multiple Styles

Figure 7.6a: Cinquillo Comping Pattern with Broken Four-Note Close Voicings
Depending on the tempo, some types of voicings may be more practical or appropriate than others. By practicing assorted styles of voicings with these rhythms, the pianist increases his/her options to more than one shape played in the right hand. This provides the pianist with more musical sounds and textures to draw from in a performance setting.

The following examples demonstrate something a pianist might comp over “Blue Bossa” and “Solar” when using the modified cáscara and cinquillo right-hand comping rhythms. The sample comping choruses over each jazz standard draw from voicings used
in the previous examples. The pianist is encouraged to create alternate choruses to explore more options.

**Figure 7.7a:** Sample Comping Figures Over “Blue Bossa”

1. Cinquillo rhythm with voicings moving in half-step enclosures mixed with montuno style.
2. Cáscara rhythm with single note and block chord voicings.
3. Cinquillo rhythm with montuno style voicings.
4. Cáscara rhythm with single notes and block chord voicings.
Figure 7.8a: Sample Comping Figures Over “Solar”

1. Cáscara pattern using block chords
2. Cinquillo pattern using block chords and single notes
3. Cinquillo pattern using single notes and thirds
4. Cáscara pattern using block chords

Thus far, the examples work well in a solo piano context. This material could be used during an unaccompanied piano intro to setup the groove for a band, part of a solo performance, or while accompanying another musician in a duo performance. As done in the previous chapter, the left hand can be adjusted to fit ensemble playing, and the pianist can explore comping possibilities in that context. As done before, the right hand will be transposed up an octave so the two hands do not occupy the same range of the piano.

Changing the left-hand style to the McCoy Tyner-inspired quartal voicings and moving
the right to a higher range morphs the comping figures to function more as a chordal solo than accompaniment.

**Figure 7.9: Sample Comping Chorus on “Blue Bossa” Using “Chordal Solo” Style**

Another viable way to use the comping figures while playing with a rhythm section is to have the left hand play an improvised melody using the clave rhythm while the right-hand comping figures provide harmony and counter melodies. This approach
creates a contrapuntal texture that can inspire interesting solo ideas. It also gives the pianist yet another musical option to explore using the same rhythmic ideas. Below is a chorus over the form of “Solar” using this approach.

**Figure 7.10: Sample Comping Chorus of “Solar” with Left-Hand Melody Style**

Maintaining the clave while playing other rhythmic ideas in the right hand enhances one’s rhythmic awareness and independence. However, executing all these approaches with the clave intact is very technically demanding. Eventually, the clave should be internalized to a point where it does not need to be played explicitly, though doing so in the exercises is a way to build one’s rhythmic independence. Omitting notes of the clave, which has previously been discussed, or playing left-hand figures based on
other Afro-Cuban rhythmic patterns relating to clave are more options the pianist can explore. These will be discussed further in the closing chapter.

Here is a final comping example which illustrates how a pianist might tweak some of the ideas covered in this chapter by omitting or adding notes to the clave pattern in the left hand and the cinquillo and cáscara in the right hand.

**Figure 7.11: Sample Comping Chorus of “Solar”**

1. Cáscara variation – notes added in left hand to play block chords with right hand
2. Cinquillo variation – omitted notes in both hands
3. Cinquillo variation – omitted notes in both hands
4. Cáscara pattern
5. Cáscara variation – second half of rhythm changed slightly
6. Cáscara variation – second half rhythm changed slightly
CHAPTER EIGHT

SWITCHING FROM Duple TO TRIPLE SUBDIVISION

To open even more rhythmic possibilities, the rumba clave can be played using triple subdivision and the right-hand material can be adjusted from sixteenth notes to eighth note triplets. All the melodic patterns, scalar exercises, and chordal shapes practiced from the previous chapters can be transferred to this new time-feel. What will change is the rhythmic coordination and subdivision to which the melodic content is attached. The pianist should feel the clave in 12/8, subdividing each beat into three even parts. The examples will be written in 4/4 time rather than 12/8 so this rhythmic content can be integrated with the duple-based material previously covered, which will be the focus of chapter nine. Below are three notated examples of the 2-3 rumba clave to help illustrate the relationship to the duple and triple subdivision, as well as 12/8 and 4/4.

**Figure 8.1a:** 2-3 Rumba Clave Notated in Duple Subdivision

**Figure 8.1b:** 2-3 Rumba Clave Notated in Triple Subdivision (Abakuá Clave)

**Figure 8.1c:** 2-3 Rumba Clave Notated in 12/8

Following the process of the previous chapters, once this rhythm is learned and internalized, notes can be paired with the clave. Since the underlying subdivision, not the
number of notes, has been changed, the same melodic content assigned to the clave in previous chapters can be used as well. This is demonstrated in the following four examples.

**Figure 8.2a:** 2-3 Rumba Clave C Minor Bass Figure Notated in Duple Subdivision

**Figure 8.2b:** 2-3 Rumba Clave C Minor Bass Figure Notated in Triple Subdivision

**Figure 8.2c:** 2-3 Rumba Clave ii – V – i Bass Figure Notated in Duple Subdivision

**Figure 8.2d:** 2-3 Rumba Clave ii – V – i Bass Figure Notated in Triple Subdivision

Since many examples illustrating right-hand melodic possibilities have been presented thus far, they will not be repeated in this chapter. Instead, each rhythmic example will have one possible right-hand melodic realization paired with the rhythmic content. The pianist is encouraged to practice the numerous melodic patterns previously explored with each rhythmic exercise presented in this chapter.
Initially, it may be easiest to play constant triplets in the right hand so that all the subdivisions are heard, which will in turn help the accuracy of the left-hand rhythm. The first two examples stay in C minor so the pianist can focus on rhythmic coordination while maintaining the same left-hand figure. Afterwards, the examples will use ii – V – i progressions so that they have more practical application.

**Figure 8.3a:** Ascending C Harmonic Minor Scalar Passage in Triplets

**Figure 8.3b:** C Harmonic Minor Ascending Diatonic Thirds Scalar Pattern in Triplets

**Figure 8.3c:** Ascending C Harmonic Minor Scalar Passage in Triplets Over ii – V - i
The next step towards developing further rhythmic independence and accuracy is to syncopate the triplet rhythm in the right hand. This can be done through omitting some notes and beginning melodic patterns on each part of the triplet. To help rhythmic coordination, the pianist should note where the two hands align.

**Figure 8.3b:** 1\(^{\text{st}}\) and 2\(^{\text{nd}}\) Parts of Triplets Played as Arpeggios of Chords\(^{46}\)

![Figure 8.3b](image)

**Figure 8.3c:** 2\(^{\text{nd}}\) and 3\(^{\text{rd}}\) Parts of Triplets Played as Ascending and Descending 3\(^{\text{ds}}\)

![Figure 8.3c](image)

**Figure 8.3d:** 3\(^{\text{rd}}\) and 1\(^{\text{st}}\) Parts of Triplets Arpeggiating Harmonic Progression

![Figure 8.3d](image)

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\(^{46}\) This triplet-based pattern is the African rhythm *mangambe*. The book *Modern Drummer Presents Exercises in African-American Funk: Mangambe, Bikutsi, and The Shuffle Standard* by Jonathan Joseph and Steve Rucker provides a thorough investigation of this rhythm.
This concept can be explored further by omitting more notes and playing chords in the right hand once per beat on each part of the triplet. Since doing this on the first part of the triplet would be the same as playing quarter notes, that particular example is not illustrated.

**Figure 8.3e:** Chords Played on the 2nd Part of the Triplet

![Figure 8.3e](image1)

Another interesting rhythmic approach to explore is grouping the triplets in twos and fours, rather than in groups of three. Grouping triplets in this fashion is another way to create syncopation and inspiration for improvisational ideas. Doing this accurately requires a great deal of rhythmic independence and rhythmic awareness, which is why the pianist can benefit greatly from mastering these rhythmic ideas.

As done before, playing constant triplets will help with the initial process of internalizing these rhythms. This is accomplished by creating clear two or four-note
melodic motifs, and through accenting the beginning of each grouping. Thus, the accented right-hand notes mark the beginning of each grouping of four.\footnote{This triplet-based pattern in groupings of four is the African rhythm \textit{bikutsi}. Reference the book \textit{Modern Drummer Presents Exercises in African-American Funk: Mangambe, Bikutsi, and The Shuffle Standard} for more information on bikutsi.}

**Figure 8.4a:** Chord Voicings Played in Triplet Groupings of Four

Continuing with the methodology previously followed, the pianist can further syncopate the rhythmic and melodic ideas by omitting notes and starting the pattern on each part of the beat. The following examples demonstrate this through altering the melodic and rhythmic content of the previous example accordingly. To begin this process, the pianist can omit one of the notes from each four-note grouping. What remains is a three-note melodic pattern paired with a rest, retaining the same rhythmic four-note grouping without playing constant triplets.

**Figure 8.4b:** Previous Example with the Fourth Note Omitted
Additional permutations of the same rhythmic grouping can be created by omitting another one of the notes from the rhythmic theme of the previous examples. This creates a two-note melodic pattern paired with two rests. The newly-formed combination of notes and rests can be organized either by pairing two consecutive notes and rests together, or by alternating back-and-forth between each one. If the latter option is chosen, the rhythm formed is the equivalent of quarter-note triplets. The figure below
illustrates this by showing how the rhythm can be notated multiple ways, starting with the version which alternates between one note and one rest.

**Figure 8.5:** Three Different Ways of Notating Quarter-Note Triplet Rhythm

The quarter-note triplet rhythm can be considered a grouping of two since its duration is equal to two eighth-note triplets. Before organizing this rhythm into groupings of four, the pianist should practice the rhythm in a more conventional way, as shown in the example below.

**Figure 8.6a:** Quarter-Note Triplets Arpeggiating Harmonic Progression

To further develop rhythmic independence and awareness, the pianist can adjust the motif to begin on the second and third parts of the beat, as demonstrated in the following two examples. This may seem daunting at first, but in actuality, the quarter-note triplet is already being played on each part of the beat in the previous example. The only difference is the starting point of the pattern.
Once proficiency is gained through mastering the rhythmic coordination and independence required by the previous examples, the same rhythm can now be organized into groups of four. This creates a rhythmic phrase that resolves every two measures. To be thorough in developing increased rhythmic independence and awareness, the same motif is presented starting on each part of the beat. Accented notes mark the beginning of each grouping of four.

**Figure 8.7a: Quarter-Note Triplets in Groupings of Four**
Returning to the two possible ways of organizing this four-note grouping, the option yet to be explored is playing two consecutive notes followed by two rests. This provides yet another avenue of possibilities to investigate and produces a rhythmic effect quite different than quarter note triplets. Below is one possible motif created from this rhythm, along with two variations which start on second and third parts of the beat.

**Figure 8.8a: Rhythmic Motif in Groupings of Four**
The last permutation of the four-note rhythmic grouping omits yet another note. This leaves one note paired with three rests, or one note sustained for the duration of four eighth-note triplets, which is how the rhythm will be interpreted. This rhythm is the equivalent of half-note triplets and can notated multiple ways, as illustrated in the example below.

**Figure 8.9:** Three Ways of Notating Half-Note Triplet Rhythm

From a technique perspective, playing half-note triplets is not challenging.

However, from a rhythmic perspective it can be very challenging since the pianist must
mentally subdivide in order to accurately execute the rhythm. In fact, oftentimes the fewer number notes involved increases the rhythmic difficulty for this same reason.

Since these note durations are relatively long, using chords in the right hand to realize the rhythm is one pragmatic way to practice the rhythmic coordination between the two hands. As done before, the initial figure displayed begins on the downbeat and the following two examples are displaced rhythmically so the pianist can practice starting the rhythm on each subdivision of the beat.

**Figure 8.10a:** Half-Note Triplet Played as Chords

![Figure 8.10a](image)

**Figure 8.10b:** Rhythmic Motif Shifted to 2\(^{nd}\) Part of the Beat

![Figure 8.10b](image)

**Figure 8.10c:** Rhythmic Motif Shifted to 3\(^{rd}\) Part of the Beat

![Figure 8.10c](image)
Like the previous examples, the half-note triplets can also be grouped into even numbers to create more rhythmic tension and syncopation. The following examples take the same chords and rhythm previously used and organize them into groups of two.

**Figure 8.10d:** Half-Note Triplet Motif in Groupings of Two

![Figure 8.10d: Half-Note Triplet Motif in Groupings of Two](image)

**Figure 8.10e:** Rhythmic Motif Shifted to 2\textsuperscript{nd} Part of the Beat

![Figure 8.10e: Rhythmic Motif Shifted to 2\textsuperscript{nd} Part of the Beat](image)

**Figure 8.10f:** Rhythmic Motif Shifted to 3\textsuperscript{rd} Part of the Beat

![Figure 8.10f: Rhythmic Motif Shifted to 3\textsuperscript{rd} Part of the Beat](image)

A fitting way to conclude this chapter is to find an Afro-Cuban rhythm which relates to the even-numbered rhythmic groupings investigated thus far. In *A World of*
Rhythmic Possibilities, Dafnis Prieto analyzes and explores just such a rhythm by taking the cinquillo pattern from sixteenth-note subdivision and playing it in eighth-note triplet subdivision. In its original form, the cinquillo is a five-note syncopated pattern which comes from the Cuban contradanza style.

**Figure 8.11a:** Cinquillo Pattern in Sixteenth-Note Subdivision

In 4/4 time, the pattern occurs twice in one measure, evenly dividing the bar in half. Converting the cinquillo from duple to triple subdivision, however, extends the pattern into two measures evenly divided into three parts. In both examples, the starting point of each iteration of the pattern is marked by an accented note.

**Figure 8.11b:** Cinquillo Pattern in Eighth-Note Triplet Subdivision

This newly created syncopated pattern resolves every two measures, within which three iterations of the rhythm occur. Each reiteration of the cinquillo is equal to four quarter-note triplets (or two half-note triplets), as illustrated in the figure below.

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In this section of his book, entitled “The Multidimensional Cinquillo Cubano,” Prieto elaborates on the process of converting the cinquillo pattern from sixteenth-note to eighth-note triplet subdivision:

As we can see, the same pattern has been distributed into two different subdivisions. I use the term “the same pattern” because it contains the same amount/ordering of notes and rests hence the same rhythmic content... Of course, this new subdivision (eighth-note triplets) alters the value of the notes and rests, but in this case the changes in the value of the notes and rests are symmetrically distributed from one subdivision to another.\(^{50}\)

Prieto’s explanation, plus the visual representation, illustrate why the triplet-based cinquillo relates to triplet groupings of four.

Executing this rhythm accurately requires much focus, and playing it in sync with the clave in the left hand requires a very high level of rhythmic independence and awareness. For this reason, and because the original cinquillo is already familiar, it is advantageous to practice coordinating these rhythms together between the two hands. The triplet-based cinquillo can be used to play scales or any various amounts of melodic motifs, as illustrated in the following two examples.

\(^{50}\) Prieto, *A World of Rhythmic Possibilities*, 2016, 216.
Finally, once the pianist is comfortable with the various rhythmic ideas covered, he/she should begin trying to use them in an improvisational context over the harmonic progression of a jazz standard. Each rhythmic idea can be practiced individually for an entire chorus, and then as more familiarity is gained the pianist should practice incorporating multiple ideas together in various combinations and orders. Below is an example of using some of the ideas covered over the form of “Blue Bossa.”
Figure 8.13: Sample Solo Over “Blue Bossa”

1. Ascending thirds scalar pattern played on the 2\textsuperscript{nd} and 3\textsuperscript{rd} parts of the triplet
2. Triplets grouped in fours with the first note replaced by a rest
3. 2\textsuperscript{nd} part of the triplet
4. 3\textsuperscript{rd} and 1\textsuperscript{st} parts of the triplet
5. Descending figure played on the 1\textsuperscript{st} and 2\textsuperscript{nd} parts of the triplet
6. Melodic figure outlining the chord played as quarter-note triplets
7. Melodic material consisting of constant triplets

One focus of this chapter involves investigating rhythmic possibilities inspired by how triplets can be grouped. Practicing the rhythmic permutations and examples covered
and pairing them with the left-hand clave will significantly increase the pianist’s level of rhythmic independence and awareness. Furthermore, in addition to rhythmic ideas explored, all the melodic and thematic concepts from previous chapters can be applied to triplets as well. Most, if not all, the material is meant to compliment and add to previously examined content. The end goal is to have the ability to combine and adapt the plethora of rhythmic ideas investigated to fit one’s own musical taste and apply the ideas in a practical manner when performing.
CHAPTER 9
CONCLUSION

Rhythmic independence is an extremely important skill for the modern jazz pianist to possess in the current musical era. It is not uncommon for contemporary jazz music to draw from rhythmic sources stemming from African, Cuban, Indian, or other non-Western music. Jazz musicians, therefore, are often required to have a more advanced understanding and proficiency in rhythm. For pianists, developing a high level of rhythmic proficiency and independence is becoming more and more necessary to perform and function in many modern-day rhythm sections. These rhythmic skills also translate to solo piano playing, as can be heard with many pianists who perform in both contexts.51

This essay addresses the challenge of developing the pianist’s rhythmic independence and awareness through the study, practice, and adaptation of drumming techniques relating to Afro-Cuban rhythmic patterns. Because clave is an integral part of Afro-Cuban music, it has been the focal point of the paper and foundation on top of which all the rhythmic exercises have been practiced. This, in many ways, parallels the practice strategy used in various drum method books which address Afro-Cuban rhythms.52 To keep things consistent, and somewhat concise, the 2-3 rumba clave has been used exclusively in the examples, though 3-2 rumba clave and son clave could just as easily be inserted into the left-hand part of any example. More important than the

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51 A few pianists who make use of advanced rhythmic ideas in both solo and ensemble playing are Gonzalo Rubalcaba, Chucho Valdes, and Tigran Hamasyan.
specific clave pattern practiced in the left hand is following the methodology laid out in previous chapters addressing how the pianist can develop greater rhythmic independence. This strategy can, and should, be used with other clave and rhythmic patterns.

Oftentimes in Afro-Cuban music, the clave is internalized to such a high degree that it does not need to be played explicitly for the musicians to hear or feel it. This level of familiarity can be reflected in the pianist’s journey in developing rhythmic independence and awareness, and familiarity with the clave. Eventually the clave pattern does not need to be played every measure and can be altered or omitted. As previously mentioned, other bass figures derived from Afro-Cuban rhythms relating to the clave can be played in its place with the left hand. These include, but are not limited to, the cinquillo, ritmo de tango, tresillo, tumbao, and the 6/8 cowbell pattern. In her book, *101 Montunos*, Rebeca Mauleón-Santana labels these rhythms as common “clave patterns which form part of our Afro-Caribbean umbrella.”

A thorough investigation into these patterns, their possible pianistic applications, and how they can be used to develop rhythmic independence gives cause for further study beyond the scope of this paper. However, each pattern will be briefly introduced and incorporated into the left-hand part of a ii – V – i example to demonstrate how the pianist can practice them in a jazz context similar to the methodology used thus far with 2-3 rumba clave.

Fortunately, the clave patterns Mauleón-Santana places under the “Afro-Cuban umbrella” have been incorporated by many Cuban composers, including Manuel Saumell, Ernesto Lecuona, and Ignacio Cervantes, into music for piano. This provides

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information on how these rhythms have already been adapted from percussion to the piano. In chapter two of *101 Montunos*, Mauleón-Santana provides excerpts from piano pieces by each of these composers that highlight their use of the ritmo de tango, tresillo, and cinquillo.\(^5^4\) For more information and musical examples regarding these patterns and their pianistic applications in Cuban music, investigating the music of these composers is a good starting point.

The ritmo de tango is the signature rhythmic pattern of the habanera, one of Cuba’s most well-known musical genres, perhaps made most famous in Georges Bizet’s opera, *Carmen*.\(^5^5\) Below, the rhythm is illustrated in 4/4 time with accented notes marking the beginning of each iteration of the pattern.

**Figure 9.1a: Ritmo de Tango Pattern in 4/4**

\[ \frac{4}{4} \]

Traditionally, the pattern is written in 2/4 so it occurs once per measure. However, so that it can be adapted into a modern jazz context, it has been notated in 4/4 time. This makes following the same practice methodology previously used with the 2-3 rumba clave unproblematic. Below is an example of the ritmo de tango realized as a left-hand bass figure over a ii – V – i progression in C minor. Accented notes mark each iteration of the pattern.

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\(^{5^4}\) Mauleon-Santana, 19–23.

\(^{5^5}\) Mauleon-Santana, 23.
Once the rhythm and melodic shapes are comfortable, the pianist can practice the pattern with the right-hand examples outlined in chapter six. Below are two examples demonstrating rhythmic and melodic ideas for the right-hand paired with the ritmo de tango left-hand bass figure.

**Figure 9.1c: Arpeggiated Chordal Shapes Played on the 2\textsuperscript{nd} and 4\textsuperscript{th} Sixteenth Notes**

**Figure 9.1d: Arpeggiated Chordal Shapes Played Using Cinquillo Rhythm**

The tresillo rhythm is almost identical to the ritmo de tango and is commonly used in Reggaetón music. The only difference is that the second and third note are tied together. This rhythm is a central cell in many styles of African music and is also the first
half of the three-side of the son clave pattern. Following the same procedure previously done with the ritmo de tango, the tresillo will be notated in 4/4 with accents marking each iteration of the pattern, realized into a left-hand bass figure, and then paired with two right-hand rhythmic examples.

**Figure 9.2a:** Tresillo Pattern in 4/4

[Music notation image]

**Figure 9.2b:** Tresillo Realized as a Left-Hand Bass Figure

[Music notation image]

**Figure 9.2c:** Arpeggiated Chordal Shapes Played on the 2nd and 4th Sixteenth Notes

[Music notation image]

**Figure 9.2d:** Arpeggiated Chordal Shapes Played Using Cinquillo Rhythm

[Music notation image]

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56 Mauleon-Santana, 5.
The rhythmic makeup of the cinquillo has been examined in this paper already and used as rhythmic material for the right hand. However, in nineteenth-century Cuban music this pattern was oftentimes incorporated into the left-hand part of piano compositions, as can be seen and heard in pieces such as “La Comparsa” and “Danza Lucumi” by Ernesto Lecuona. In these pieces and many others, the cinquillo is joined by an additional measure, creating a binary phrase made up of a syncopated measure followed by a non-syncopated measure. This pattern, called the *baqueteo*, became the signature rhythm for the Cuban *danzón*. Below, the baqueteo is notated in 4/4 with accents marking the two parts of the binary phrase. It is then realized into a left-hand bass figure and paired with two right-hand rhythmic examples.

**Figure 9.3a: Baqueteo Pattern**

![Baqueteo Pattern](image1)

**Figure 9.3b: Baqueteo Pattern Realized as a Left-Hand Bass Figure**

![Baqueteo Pattern Realized](image2)

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57 Lecuona, *Ernesto Lecuona Piano Music*.
58 In this context, an additional measure is in reference to being in 2/4 time. In 4/4 time, the two-measure binary phrase is converted to a one-measure phrase consisting of two distinct halves.
The tumbao is a common pattern played by the bass in Afro-Cuban music, and therefore can be played by the left hand of the pianist during solo performances when no bassist is present. The basic tumbao rhythm is the same as the tresillo, except that the note which would be played on the downbeat is tied to the note preceding it, so the beginning of each phrase is anticipated. This creates rhythmic and harmonic syncopation since beat one is usually not played. The pianist should refer to a source such as *The Latin Bass Book* for further research regarding the many variations and possible ways of constructing tumbaos.\(^{60}\)

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When playing triplet subdivisions, another Afro-Cuban rhythmic figure that can be adapted to the left hand is the 6/8 cowbell pattern (or 6/8 clave). This triplet-based rhythm adds two extra notes to the Abakuá clave pattern, and, like the clave, has a two-side and a three-side. Shown below are figures illustrating the 3-2 and 2-3 sides of the 6/8 cowbell pattern juxtaposed on top of the corresponding Abakuá clave. Succeeding those patterns, Dafnis Prieto (A World of Rhythmic Possibilities) refers to it as the 6/8 cowbell pattern.

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61 Rebeca Mauleón-Santana (101 Montunos) and Horacio Hernandez (Conversations in Clave) refer to this rhythm as the 6/8 clave, whereas Dafnis Prieto (A World of Rhythmic Possibilities) refers to it as the 6/8 cowbell pattern.
are examples adapting the 2-3 side of the 6/8 cowbell pattern to left-hand figures and
two-handed rhythmic exercises.

**Figure 9.5a:** 6/8 Cowbell Pattern (Top) Compared to 3-2 Abakuá Clave (Bottom)

![Figure 9.5a](image1)

**Figure 9.5b:** 6/8 Cowbell Pattern (Top) Compared to 2-3 Abakuá Clave

![Figure 9.5b](image2)

**Figure 9.5c:** 6/8 Cowbell Pattern (2-3 side) Realized as Left-Hand Bass Figure

![Figure 9.5c](image3)

**Figure 9.5d:** 2nd and 3rd Parts of Triplets Arpeggiating Harmonic Progression

![Figure 9.5d](image4)
Figure 9.5e: Descending Melodic Shape Played Using Rhythmic Groupings of Four

The many rhythmic patterns that are a part of Afro-Cuban music make it an ideal source of study when investigating ways to improve one’s rhythmic awareness and independence. Furthermore, given that there is an entire genre of music labeled Afro-Cuban Jazz, it would seem that out of practicality’s sake the jazz pianist should familiarize him/herself with the rhythmic language of Afro-Cuban music. As shown in this paper, the rhythmic patterns can be adapted to the piano in a variety of ways, many of which Cuban composers and pianists have done. Learning these rhythms on the piano and then practicing them with the left hand in juxtaposition against rhythms played by right hand will be very beneficial to the pianist. This process, which has been detailed throughout the paper, forces the pianist to master the rhythms being played by each hand and develop the level of independence required to comfortably play the two in sync.

The examples and exercises in this paper are designed to represent rhythmic and melodic material a pianist could play in the context of a jazz performance. Since jazz is a genre of music which gives musicians the freedom to play improvised content reflective of their musical tastes, it should be noted that learning the written examples verbatim, though helpful, is not the main intention of this paper. Instead, the examples should be viewed as a means for the pianist to understand and assimilate each rhythmic concept.
examined. The examples demonstrate possible musical realizations of the rhythmic material within a practical setting, in this case, ii – V – i progressions in C minor and two jazz standards in the same key. Again, the specific compositions, harmonic progressions, and key centers are secondary to the rhythmic content. The main objective is that the pianist has the ability to apply the skills, ideas, and knowledge of rhythm gained as a result of this study to any musical scenario or piece of repertoire desired.


