
I. Solo Recital: Sunday, March 30, 2014, 7:30 p.m., Recital Hall.

_Dundunba_ (Traditional West African, arr. Snow); _Mahororo/Nyamaropa_ (Traditional Shona); _Monkey Chant for Solo Drumkit_ (Glenn Kotche); _Prim_ (Áskell Másson); _Sonata No. 1 in G minor, BWV 1001: Fuga & Presto_ (Johann Sebastian Bach); _Mopti_ (Don Cherry); _Time Remembered_ (Bill Evans).

II. Solo Recital: Sunday, March 22, 2015, 7:30 p.m., Recital Hall.

_Wicca_ (Casey Cangelosi); _The Apocryphal Still Life_ (Christopher Deane); _One4_ (John Cage); _True Colours_ (John Thrower); _Fusão Árabe_ (Justin Bunting and Adam Snow); _Question and Answer_ (Pat Metheny); _The Tourist_ (Jonny Greenwood).

III. Solo Recital: Sunday, November 22, 2015, 7:30 p.m., Recital Hall.

_Bloom Suite_ (Elliot Cole); _Sleight of and Evil Hand_ (Casey Cangelosi); _Legerdemain_ (Ivan Trevino); _Shumba yaNgwasha_ (Traditional Shona); _West African Drum Set Suite_ (Traditional West African, arr. Snow).

IV. D.M.A Research Project. THE WEST AFRICAN DRUM SET: APPLYING MANDE DJEMBE TRADITIONS TO THE MODERN DRUM SET. (2016) The goblet shaped hand drum from West Africa called djembé has seen significant growth in performance and education settings outside of Africa over the past several decades. As a result, many non-African percussion students are being exposed to rhythms and concepts from djembé traditions of
the Mande people found in the present-day countries of Guinea, Mali, Ivory Coast, and Senegal. Simultaneously, many of these students are cultivating skill sets, such as four-way coordination, that apply to drum set and multiple-percussion compositions. Through a look at the history and development of the Western drum set and at the increasing presence of the djembé in the West, a synthesis will be drawn between the two instruments.

Individual chapters will place focus on: (a) the resources available for applying other folkloric percussion ensemble traditions to the drum set, (b) the historic developments, musically and structurally, of the drum set that have led to the current state of the instrument, (c) the legacy of djembé traditions in the West, focused primarily on Europe and North America, and (d) the culmination of applying traditional djembé ensemble rhythms to the modern drum set through several composite adaptations. Chapter four will include embedded videos demonstrating the rhythms of the final focus area.
THE WEST AFRICAN DRUM SET: APPLYING
MANDE DJEMBÉ TRADITIONS
TO THE MODERN
DRUM SET

by

Adam M. Snow

A Dissertation Submitted to
the Faculty of The Graduate School at
The University of North Carolina at Greensboro
in Partial Fulfillment
of the Requirements for the Degree
Doctor of Musical Arts

Greensboro
2016

Approved by

___________________________
Committee Chair
To my amazing wife Lucy, our son Finnegan, and daughter Sadie who are a constant source of love, laughter, inspiration, and encouragement in my life and my wonderful parents Mike and Debbie Snow, for all of their love and support over the years.
This dissertation written by Adam M. Snow has been approved by the following committee of the Faculty of The Graduate School at The University of North Carolina at Greensboro.

Committee Chair
__________________________________________
Dennis AsKew

Committee Members
__________________________________________
Revell Carr

__________________________________________
Gavin Douglas

__________________________________________
Steve Haines

__________________________________________
Eric Willie

Date of Acceptance by Committee

Date of Final Oral Examination
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I would like to express my deepest gratitude to my committee chair, Dr. Dennis AsKew. His insights and guidance during this process have been extremely helpful. I would also like to thank my committee members starting with Dr. Eric Willie. Our weekly meetings and lessons provided me with steady encouragement and focused direction for the document. Much appreciation goes to Dr. Gavin Douglas who has consistently contributed to the expansion of my perspective through thought provoking classes and personal meetings. Many thanks go to Dr. Revell Carr for his attentive feedback and input along the way. Professor Steve Haines also deserves my appreciation for his thoughtful advice and innovative suggestions and for connecting me with Dr. Michael Frierson in the Media Studies department at UNCG.

Special thanks go out to Dr. Frierson and his students for their immense help on the video shoot. In particular, I would like to thank student director Andrew Lucas for his role in editing the film clips and for his high level of professionalism. My gratitude is also extended to Dr. B. Michael Williams for being an incredible mentor and colleague for the past twenty years and for his advice and assistance in this process. I would also like to thank my good friend Mr. Joe Miller for his technical guidance and expertise.
PREFACE

The final chapter of this document includes videos that were embedded as “rich media” files in Adobe Acrobat. If Acrobat is installed on the device on which this document is being viewed, it is recommended that the file is saved first, and then opened with Acrobat. The videos should then load properly and be viewable within the body of the paper. If Acrobat is not available, a YouTube link will appear in the place of the rich media video. This will allow the reader to view video files online via the internet. In addition to the visible YouTube link, the figure titles for videos will be hyperlinked to the corresponding YouTube video. Supplemental video files will be included in a separate folder along with the document and can be accessed in the event that no internet access is available.
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CHAPTER I

THE DJEMBE AND THE DRUM SET

Introduction

Connected by common ancestry, the djembé drum of the Mande people of West Africa and the American drum set have traversed paths that have ultimately led them to converge over the past half-century. The shared DNA of many of the practitioners can be linked through the West African slave drumming and dancing traditions that occurred in Congo Square in nineteenth century New Orleans. This public square was set aside by the mayor of New Orleans in 1817 to allow African slaves a place to congregate, dance, and play music on Sundays, which was their day off (Kolchin 2002: 47). So many West Africans inhabited Louisiana during that time that the Bambara language of Guinea, Mali, and Sierra Leone, (home of the djembé), is said to have contributed to the development of the Creole tongue (Wilson 1992: 21).

Compared to other American states of the “deep South” such as Georgia and South Carolina, the ruling powers in Louisiana had more relaxed policies on allowing African slaves to practice rituals and, specifically, to play drums. In these other southern states, there was a prohibition on drums and horns among slaves in an attempt to prevent communication and possible revolts (Coolen 1991: 9). As a result, New Orleans became one of the primary locations in the genesis of the African-American drumming tradition.
Although solid evidence has not been able to prove that the goblet shaped djembe was ever present during the gatherings at Congo Square, firsthand accounts and drawings by the architect Benjamin Latrobe depict hand drums, similar in function to the djembé, that originate in West Africa (Gioia 2011: 3). This locus of West African musical influences gave rise to the development of popular African-American styles such as Ragtime, Dixieland, Jazz, and Funk that, in turn, set the course for the development of the language and construction of the modern drum set.

Additional influences outside of Africa have also had an impact on the development of the modern drum set. From an instrumentation standpoint, the components draw largely from European and Asian influences. The primary elements of the drum set that remain at its core today include the snare drum from Europe (a descendant itself of Persian frame drums with attached snares imported via the Crusades), the bass drum and cymbals from the Near East, and tom-toms from China.

Over time, the language of the drum set has evolved out of a combination of rudimental snare drumming and the application of ensemble traditions to the composite single-player model. In the beginning, as the marching military and community bands began to come inside to perform, this new platform of a single stationary drummer playing multiple drums saw rapid development (Breithaupt 1989: 5).

In chapter two, a detailed look at the drum set and some of its developmental landmarks will be highlighted. Milestones such as the advent of double drumming, the toe-operated bass drum pedal, the transformation of the hi-hat apparatus, and the ride cymbal, among others, will be discussed. Important drumming innovators such as Warren
“Baby” Dodds, “Papa” Jo Jones, Kenny “Klook” Clarke, Max Roach, Elvin Jones, Tony Williams, Earl Palmer, Clayton Fillyau, and John Bonham will receive attention in an attempt to illustrate the progression of the craft throughout the twentieth century. Another aspect to be explored is the pedagogical process and some of the important publications that have accompanied four-way coordination development on the drum set and its progression since the 1940s.

Chapter three will shift focus to the journey of the djembé and accompanying complement of bass drums, collectively known as dunduns, from villages of West Africa to the world stage via state sponsored ballet companies such as Les Ballets Africains de la République de Guinée and the Le Ballet National Djoliba. Attention will be placed on some of the most influential djembé masters in the West including the father of djembé in the United States, “Papa” Ladji Camara, along with two of the most widely recognized Guinean master drummers teaching in the West today, Famoudou Konate and Mamady Keïta. In addition, a brief look will be taken at the resources available to Western musicians interested in learning more about djembé techniques and traditions.

The final chapter will include a methodical approach to applying a selection of traditional djembé and dundun rhythms to an array of composite drum set adaptations. Both notated examples and instructional videos will accompany each variation. A brief demonstration of basic djembé techniques along with the traditional djembé and dundun patterns for each rhythm will also be exhibited through video footage and standard Western music notation.
The purpose of this study is to find common ground between djembé ensemble rhythms and the drum set and to merge the two. The hope is that this synthesis will assist percussionists in expanding their ears and minds to other drumming traditions of the world along with developing new approaches to four-way coordination and enhancing drum set vocabulary. This same approach has been taken with other ensemble traditions of the world and the drum set.

**Review of Related Research**

Afro-Cuban drumming ensemble traditions have been expertly adapted to the modern drum set in Frank Malabe and Bob Weiner’s influential book *Afro-Cuban Rhythms for Drumset* (1990) and Ed Uribe’s extensive text *The Essence of Afro-Cuban Percussion and Drum Set* (1996). Both books provide background on the music traditions of Cuba and the instruments from which the traditional rhythms derive. Malabe and Weiner’s book focuses on rhythms such as *Guaguancó, Conga, Mozambique, Songo,* and *Merengue.* Each section consists of traditional drumming parts and drum set adaptations.

Uribe’s comprehensive book is more extensive with all five of the rhythms presented in Malabe and Weiner’s book and twenty additional rhythms from Cuba, The Dominican Republic, and Puerto Rico. Along with the drum set adaptations, he includes parts for thirteen different traditional instruments including clave, congas, bongos, timbales, palitos, shekeré, maracas, and guiro. He also includes a chapter with full ensemble arrangements including horns, piano, guitar, strings, and string bass. This book has an impressive amount of information including maps and historical descriptions of the instruments and the rhythms adapted to the drum set.
Afro-Brazilian percussion has also seen adaptation to the drum set through books such as Duduka Da Fonseca and Bob Weiner’s *Brazilian Rhythms for Drumset* (1991), Ed Uribe’s *The Essence of Brazilian Percussion and Drum Set* (1993), and Scott Kettner’s *Maracatu for Drumset and Percussion* (2013). As with the Afro-Cuban adaptations, these texts attempt to adapt composite variations of ensemble rhythms to a single drum set.

Uribe’s book is, once again, the most extensive in scope of these three books with instruction on playing traditional Brazilian percussion instruments alongside the drum set versions. He suggests that anyone attempting to learn the patterns on drum set should first spend a fair amount of time learning how to play the traditional instruments in order to truly understand the feel and sensibility of each instrument (1993: 13). By grasping these traditional instrumental techniques, a clearer sense of how to adapt and interpret the rhythms can be achieved on the drum set. This is a concept that will be reinforced with the adaptation of West African rhythms in chapter four.

Duduka Da Fonseca and Bob Weiner’s *Brazilian Rhythms for Drumset* (1991) provides a description for the traditional instruments along with a single basic ostinato for each instrument in the ensemble as a point of reference. The drum set variations present more detail than the information provided of the traditional instruments. These variations provide a variety of modifications on traditional Brazilian grooves including *Samba, Bossa Nova, Baião, Maracatu,* and *Frevo.* A section on suggested listening assists the student in finding suitable recordings that will demonstrate appropriate feel and vocabulary.
Maracatu for Drumset and Percussion (2013) by Scott Kettner is a much more specialized method for applying the Brazilian carnival rhythms of Maracatu to the drum set. This is a thoughtful introduction to the carnival style from northeastern Brazil that is often overshadowed by the more internationally known Samba of Rio de Janeiro. The book sheds light on origins, traditions, and modern innovations that have led Kettner to find a corollary between the large ensembles of drums, bells, and shakers and the modern drum set. He also takes it a step further and presents a connection between Maracatu and the carnival rhythms of New Orleans played during Mardi Gras. This musical link is of particular significance considering that New Orleans is the birthplace of the drum set.

Perhaps the two drum set methods that relate most closely to this research are Royal Hartigan’s West African Rhythms for Drumset (1995) and Mokhtar Samba’s African Rhythms and Independence for Drumset (2001). Of these two, only Samba’s book addresses a djembé rhythm from Guinea among other rhythms from Morocco, Algeria, Tunisia, Cameroon, and Senegal. Samba has performed and recorded with French violinist Jean-Luc Ponty and with African stars such as Salif Keita, Youssou N’Dour and Richard Bona, among others. His book presents exercises to develop a time feel and variations that he himself has played on tours and records. He also gives suggestions for recordings on which these grooves can be heard.

The aspect of Samba’s book that makes it different than this study is that he does not specifically address the djembé or dundun techniques associated with his drum set adaptation. The djembé rhythm that he presents is called Dundunba, one of the most famous of djembé rhythms. Instead of explaining the correlation between the traditional
ensemble polyphony and the drum set composite, he only provides his own drum set exercises and variations based on ideas that he performed on the Salif Keita song entitled “Cono” from Keita’s record called *Soro* (p.34).

Royal Hartigan’s book *West African Rhythms for Drumset* (1995) exhibits four rhythms from drumming traditions of Ghana. They are *Sikyi, Adowa*, and *Akom* of the Ashanti people and *Gahu* of the Ewe people. Each rhythm comprises a chapter containing the original ensemble rhythm followed by several drum set variations. An introductory chapter gives background detail on the people and their instruments. Though these rhythms originate in a different part of West Africa from those of the djembé ensembles, the approach that Hartigan takes provides a useful model for applying traditional African ensemble rhythms to a drum set. He includes variations that can be applied to Latin, jazz, funk, and hip hop grooves. This, too, is among the aims of this paper.

Common adaptations in the previously mentioned texts substitute the hi-hat or ride cymbal for traditional iron bells and shakers and the drums themselves are apportioned based on the requirements for each traditional rhythm. This is the same manner in which the djembé rhythms will be applied in the final chapter.
CHAPTER II
A BRIEF HISTORY OF THE DRUM SET IN AMERICA

The modern drum set is an instrument of American origin in the same way that jazz is a distinctly American art form. They both have loosely evolved along the same timeline, each influencing the other along the path. In a way, the instrument and the art form are both metaphors for the ethnic mosaic that can often define the American cultural landscape. As such, the modern drum set of the twenty-first century, like jazz, is a reflection of the intermingling of immigrant peoples. These individuals brought musical customs and instruments with them that would contribute to the burgeoning new culture of a distinctly American tradition.

Snare drums from Europe, bass drums from the Near East, tom-toms, gongs, and woodblocks from China, and cymbals from Turkey coalesced to form an amalgam of international influences on the instrumentation of the early drum set. This mixture of elements combined with European and African rhythmic sensibilities helped to create both a synergy and a syncretism resulting in the vocabulary and architecture of the modern drum set.

The initial concept of the drum set emerged from a need to have one individual perform the role of multiple drummers. After the American Civil War (1861-65), African American musicians in New Orleans initially performed as funeral parade bands that typically included a snare drummer and a bass drummer who also played an attached
cymbal (Breithaupt 1989: 5). Over time, this music made its way from the streets into indoor parties, dances, and social engagements. Once the bands were inside, drummers could sit in one place and play on multiple instruments at the same time. This provided both an economic benefit for bands and an avenue for drummers to innovate a new approach to playing.

**Double Drumming**

The first notable style of drumming that would lead to the modern drum set was known as “double drumming.” It involved an individual playing snare drum, bass drum, and a mounted cymbal simultaneously with sticks. In many cases, the snare drum was placed in a chair at a 45° angle, allowing the player to move between it and a bass drum that might be placed on the floor with the batter head at a 90° angle from the floor (Breithaupt 1989: 5, Dean 2012: 198). The stroke types and techniques employed, (such as bounced double strokes and flams, among other rudiments), have remained an integral component of the drum set lexicon to this day.

**Ludwig’s Bass Drum Pedal**

One limitation that many drummers of this early era experienced was the need to use both hands on both drums simultaneously. The bass drum pedal was the answer to this issue. Through the employment of a foot pedal mechanism, the player could produce rhythms on the snare and bass drums concurrently while maintaining the integrity of each instrument’s individual role in the music. This innovation would prove to be among the most notable of impetuses behind the evolution of drum set technique.
Although several incarnations of bass drum pedal mechanisms surfaced during the late nineteenth and early twentieth centuries, it was William F. Ludwig’s pedal, patented in 1909, which changed everything for drummers. In contrast to some of the more cumbersome designs such as the overhang pedal or the heel-controlled pedal, Ludwig created a toe-operated pedal that allowed for more control over dynamics and speed and had a height-adjustable beater (Brown 1983: 31). His design was so logical that it remains the industry standard for bass drum pedal design in the present.

Rhythmically speaking, the bass drum had a more basic function than the snare drum at the dawn of the development of the early drum set. Initially, the bass drum played the role of timekeeper in order to maintain a strict cadence. As African-American musicians incorporated improvisation into the parade band music of New Orleans, new ways of adding syncopations found their way into the ever-expanding language of Ragtime and Dixieland music (Fish 1994: 34).

Warren “Baby” Dodds and Zutty Singleton

As jazz evolved from these early styles, so did the drumming. Some of the earliest pioneers of jazz drumming and drum set technique in general were the New Orleans drummers Warren “Baby” Dodds (1898-1959) and Zutty Singleton (1898-1975). Both men drew heavily from rudimental traditions in their playing. Some have referred to Dodds as the “first jazz drummer,” due to his ability to support a soloist while simultaneously improvising his own part (Beithaupt 1989: 6). His use of the press roll on the snare drum to keep time created a unique sound. This technique involves pressing the stick into the drumhead to create a distinct buzzing that is employed in order to sustain
the length of a note. This would influence many that heard him play with legendary trumpeter Louis Armstrong.

Singleton also played with Louis Armstrong after Dodds. He is credited with creating the modern jazz drum solo structure of playing over the form of a tune. Instead of trading two or four measures with other soloists, Singleton would often solo over the entire 12, 16, or 32-bar form of a jazz tune. At times, he could be heard singing the changes as he soloed in phrases that complemented the melodic structure of a given tune (Fish 1994: 36).

“Papa” Joe Jones and the Hi-Hat

In the 1920s, another integral development in drum set instrumentation came to light. The sock cymbal, or “low boy” as it was often called, gave drummers the ability to play a pair of cymbals with the feet (Breithaupt 1989: 6). In most cases, a player would use one foot for the bass drum pedal and the opposite foot for the sock cymbal. This new development allowed the drummer to keep a steady backbeat, or beats two and four of a 4/4 measure, steady while simultaneously playing bass drum and snare drum along with other components of the drum set. This precursor to the modern hi-hat differed from its modern offspring by virtue of the fact that it was very low to the ground and not practical for striking with a stick.

In the late 1920s, the low boy was modified in order to elevate the cymbals to a height at which the player could comfortably strike them with a stick. In one account, the legendary Count Basie Band drummer, “Papa” Jo Jones (1911-1985), claims to have invented this new design only to have it usurped by the Leedy drum company who, in
turn, gave him no credit or reward (Hartigan 1995b: 234). In spite of this accusation, the aptly named hi-hat did become one of the central components of the modern drum set that innovators such as Jones exploited to a new level of musical sophistication during the big band era of the 1930s and 1940s.

Kenny Clarke

In the 1940s a new style of music was emerging from clubs in Harlem called bebop. This small group style of playing contrasted the large big bands of the previous era. It was during this time that the drum set began to resemble the standard instrumentation of today. Among the most influential of innovators at this time was drummer Kenny “Klook” Clarke (1914-1985). His use of the ride cymbal for time keeping instead of the hi-hat, snare drum, or bass drum created a new aesthetic that would affect the sound of jazz and popular music to this day.

He earned his nickname “Klook” from another of his musical innovations. In addition to moving the time keeping pulse to the ride cymbal, he also began to use the bass drum for rhythmic punctuations instead of a walking quarter note pattern, which had been the standard up until that point. Many called this “dropping bombs.” One of Clarke’s employers, bandleader Teddy Hill, used onomatopoeia to describe the sound of Clarke’s playing as “klook a mop” (Haggerty 1985: 195). This more interactive bass drum playing set a new standard for coordination and technique development on the drum set.
Max Roach

In the years following Clarke’s innovations, other jazz-drumming luminaries such as Max Roach, “Philly” Joe Jones, Roy Haynes, Elvin Jones, and Tony Williams would continue to expand on the vocabulary of the modern drum set. Each of these influential drummers stood as standard bearers for the ever-expanding scope of possibilities for coordination development and expressive abilities of drummers during this time period.

Max Roach (1924-2007) stands out as one of the most progressive drummers to have left his mark during the bebop period. In the early 1950s he was voted “Greatest Jazz Drummer Ever” by a jury of 100 jazz musicians, and musical icon Quincy Jones once referred to him as “one of the founders and original members of the A-team of bebop.” In 1988 he received a MacArthur Fellowship, also known as a “genius grant,” which was the first ever awarded to a jazz musician (McShane 2007: 50-51). His development of musical phrasing across the instrumentation of the drum set placed him among the most creative of innovators during the bebop era and beyond.

Roach took a decidedly more melodic approach to the drum set than anyone had before him. As a contemporary and band mate of jazz innovators such as Duke Ellington, Charlie Parker, Dizzy Gillespie, Thelonious Monk, and Miles Davis, to name a few, Roach was influenced by the interaction and improvisation present in the small combo settings. His melodic concepts would prove to be a major influence on the development of coordination for jazz drumming even to this day. The vocabulary that he established remains at the core of the modern jazz drumming lexicon.
Elvin Jones

Another innovator of note was Elvin Jones (1927-2004). A major voice of what is referred to as the post-bop era of the 1960s, Jones was both a bandleader and a highly sought after sideman who was a member of the seminal John Coltrane Quartet. Regarding Max Roach’s influence on him, Jones is quoted as saying:

I heard Max play very musical. Everything was oriented to the composition, to the melodic line. I heard that in his solos, he’s playing the tune. The way he had the tom-toms pitched, and the way he used them, it was absolutely unique and beautiful to me. I think it opened my eyes, it was like a layer being peeled off of my brain! It gave me tremendous insight (Bravos 1983: 44).

Jones took melodic drumming to new levels during his tenure with Coltrane. He expanded the role of four-way coordination around the drum set in the way that he incorporated the hi-hat voice with his left foot. It was through Elvin’s innovation that another step was taken in the historical progression of four-way coordination on the drum set. He took Roach’s melodic approach to new levels by creating an even more conversational style of interaction, both between his four limbs and with the other musicians of an ensemble. Whereas previously, the hi-hat initially served a rather static role of holding down beats two and four, Jones began to perform much more complex rhythms between all four limbs in his trademark flowing style that often utilized a rolling triplet feel that would create dizzying combinations and permutations across the entire drum set. This provided a forward motion and polyrhythmic tapestry that could easily be associated with much of the drumming heard in West Africa.
In fact, Elvin had the opportunity to record with the father of the djembé in the United States, Papa Ladji Camara, in 1963 for the famed jazz label Blue Note records. (Camara’s impact will be discussed further in the next chapter). They were both a part of a record called *African High Life* by Solomon Ilori’s Afro-Drum Ensemble. This recording is a rare opportunity to hear two absolute masters of djembé and drum set, respectively, trade solos over an accompanying ensemble. It also serves to illuminate possibilities for the application of the material presented in chapter four.

**Tony Williams**

Along with Elvin Jones, another major innovator of the post-bop era was drummer Tony Williams (1945-1997). He also claimed Max Roach as one of his major influences. In an interview with Rick Mattingly he said, “When I was a kid, I would buy every record I could find with Max Roach on it and then I would play exactly what he played on the record – solos and everything (1997: 12).” This attention to detail gave Williams an edge that earned him the opportunity to join what many refer to as Miles Davis’ second great quintet at the tender age of seventeen years old.

A prodigious innovator who would take the approach to four-way coordination to new heights, Williams synthesized the ideas that he had heard from greats such as Max Roach with his own new creative approach to the drum set. Like Elvin Jones, Tony incorporated all four limbs in a fully realized conversational style of drumming. This allowed him to create a new polyrhythmic vocabulary that involved virtuosic techniques that have been studied and emulated ever since. Fellow Miles Davis Quintet bandmate Herbie Hancock said this about Tony:
Tony had absolutely mind-blowing talent. He could play drums like no one else I’d ever seen, and even at that young age he had complete confidence in his abilities. Some musicians seem as if they were born playing their instrument, and Tony was one of those guys. He was magical to watch and listen to, because energy and creativity just flowed out of him (Hancock and Dickey 2014: 57).

**Earl Palmer**

As bebop changed the face of jazz drumming and the modern drum set, in general, it also gave way to other styles outside of jazz. A new style once again began to emerge from New Orleans in the 1950s called “rhythm and blues.” This new brand of New Orleans jazz and blues was pioneered by studio drumming legend, Earl Palmer (1924-2008). His work with artists such as Fats Domino, Lloyd Price, Professor Longhair, and Little Richard, to name but a few, helped to carve out a new direction for the language of the modern drum set. When asked in an interview where he got his ideas for his new groove, Palmer replied, “I was trying to play like Max Roach, like everybody else (Payne 1996: 5).”

Palmer was also performing parade band music in New Orleans and adapting the old rhythms into new sounds for the drum set that included a strong backbeat on the snare drum on beats two and four of a 4/4 measure. This was not a new concept but he and some of his contemporaries took it to new levels. The combination of jazz, rhythm and blues, and New Orleans street beats ultimately led to a new style that would come to be known as funk.

**Clayton Fillyau**

The prototypical funk beat of the early 1960s was coined by Clayton Fillyau (1934-2001) while drumming for James Brown. In a 1963 song of Brown’s entitled “I’ve
Got Money,” Fillyau incorporated New Orleans parade beats with a backbeat to create the iconic groove. Earl Palmer had this to say about Fillyau’s innovation:

(Fillyau) said he woodshedded with a drummer from New Orleans. This drummer turned him on to some New Orleans street beats; he combined them with some things and worked on independence between the left hand and right foot until he came up with that classic beat: *shoom – doom – bop – tick a shug a doom – bop – tick a* (Payne 1996: 5).

This new direction in music and drumming has had a major impact on the rhythms of American and British popular music including many sub-genres of rock and roll from the 1960s to the present and styles such as the jazz-fusion of the 1970s and hip hop from the late 1970s to the present.

**John Bonham**

The influence of rhythm and blues drummers like Fillyau and Earl Palmer along with jazz drummers such as Max Roach and Elvin Jones can clearly be heard in the phrasing of British rock drummers of the 1960s such as Mitch Mitchell (1947–2008) of the Jimi Hendrix Experience and one of the most influential of rock drummers, John Bonham (1948–1980) of Led Zeppelin. Bonham’s combination of influences from these historic musicians and many others, synthesized with his own personal sense of style and musicianship, helped to define a modern style of rock and roll drumming that has left a sizeable mark on the development of drum set vocabulary.

Some examples of these influences can be heard in the Led Zeppelin repertoire with tunes like “Rock and Roll” recorded in 1971 and “Moby Dick” recorded in 1969. In the former, Bonham plays, almost verbatim, the same groove that Earl Palmer played on
the 1959 Eddie Cochran song called “Somethin’ Else.” Bonham’s “Rock and Roll” groove is also very similar to the one played by Palmer’s contemporary, Charles Connor, on Little Richard’s “You Keep A-Knockin’” from 1956. Bonham’s extended drum solo on “Moby Dick” utilizes a rolling triplet technique, between the tom-toms and bass drum, that can be heard in Elvin Jones’ solo work on Coltrane’s landmark 1965 album “A Love Supreme” and organist Larry Young’s 1966 album “Unity.” On Moby Dick, Bonham also incorporates a rhythmic pattern that incorporates a sixteenth-note triplet plus an eight note played in the order of snare drum-high tom-floor tom-bass drum. Say the phrase “fruit of the loom” and you will get a sense of the timing. This rhythmic motive is phrased the exact same way on Max Roach’s 1966 solo from the piece entitled “For Big Sid.”

**Pedagogical Resources**

From a pedagogical standpoint, students of percussion were being exposed to a radical new approach to four-part interdependence methods during the bebop era. The first of its kind, Jim Chapin’s classic text called *Advanced Techniques for the Modern Drummer* (1948) presents a cross-section of exercises that are designed to allow the student to develop a level of jazz coordination that will allow for a fluid interaction between all four limbs in a variety of combinations and permutations.

Marvin Dahlgren and Elliot Fine, both former percussionists of the Minneapolis Symphony, published the method book *Four-Way Coordination* in 1963. It also presents a wide variety of permutation studies designed to train all four limbs to interact in a
seemingly independent manner. These texts set a sort of template for drum set pedagogy that has continued to develop as new styles have been applied to the instrument.

Perhaps the most significant texts of the past twenty-five years designed to assist drummers in jazz coordination development have been John Riley’s books *The Art of Bop Drumming* (1994) and *Beyond Bop Drumming* (1997). The two books work as complementary resources for students. Both books present a systematic method of developing a musical approach to accompanying and soloing in a bebop setting. In contrast to Chapin or Dahlgren and Fine’s books, Riley uses less of a strict permutation model in exchange for a more applicable selection of exercises using idiomatic phrases that one would find in the playing of bebop greats such as Max Roach, Philly Joe Jones, or Art Blakey.

Over the course of each chapter, limb interdependence becomes increasingly dense with attention first placed on developing the non-dominant hand on the snare drum through a series of idiomatic rhythmic patterns as the other three limbs maintain a steady swing pattern ostinato. Each subsequent chapter adds another limb to the dynamic stream as the other limbs continue with the prescribed ostinato. Eventually all four limbs are interacting in a musical way that reflects John Riley’s deep understanding of the essence of bebop drumming vocabulary. In addition, *Beyond Bop* includes several detailed transcriptions of iconic drummers’ solos and accompanying patterns including those of Jack DeJohnette, Elvin Jones, Roy Haynes, Bob Moses, and Tony Williams.

As the world becomes increasingly smaller through access to high quality recordings of music from cultures across the globe via the internet, a myriad of influences
continues to inform the vocabulary of drum set players in the present. They range from jazz, rock, rhythm and blues, hip hop, and electronic dance music to the international styles of the Caribbean, Latin America, Eastern Europe, The Middle East, Africa, India, and Asia to name but a few. As the final chapter will reveal, the coordination development model set into motion by the architects of jazz drumming and its offshoots can be applicable to a wide range of musical styles.

As focus is placed on the djembé traditions of West Africa in the next chapter, a sense of the traditions from which thesyncopated drumming in New Orleans arose will become clearer. These communal drumming traditions from Africa are at the nucleus of what essentially created American popular music.
CHAPTER III
THE DJEMBE OUTSIDE OF WEST AFRICA

As one of the most recognizable drums from the African continent, the djembé has seen an explosion in popularity internationally over the past fifty years. The goblet shaped drum is traditionally an instrument of the blacksmiths/sculptors or numus of Guinea, Mali, Senegambia, and Ivory Coast. In contrast to other instruments from this region of West Africa such as the 21-stringed kora and the xylophone called bala, which belong to an elite class of hereditary musicians known as jelis, there is no hereditary restriction on who can play the djembé. This means that one does not have to be born into a family that traditionally plays djembé in order to become a practitioner oneself (Charry 2000: 214). Perhaps this is one reason that the drum has had such a wide appeal both in West Africa and across the globe.

Les Ballets Africains

In 1959, the first internationally touring West African ballet company, known as Les Ballets Africains, made their debut in the United States. Though Westerners had certainly witnessed village based djembé traditions in Africa via missionary work, exploration, and colonization before this, this new type of Western influenced performance medium would place djembé in a new light among Western audiences. Led by Guinean born Fodéba Keita, Les Ballets Africains was, at the time, a private company.
By 1960, Guinea had gained its independence and the newly elected leader, Sékou Touré, slated the company as the National Ballet of Guinea in an effort to showcase the rich heritage of Guinean drumming and dancing to the world. Previous to their premier in the United States, they had toured extensively around the globe. Included among their touring destinations were French West Africa, western and eastern Europe, South America, and the Middle East (Cohen 2012: 12). As a result of this far-reaching influence, the djembé gained tremendous exposure outside of its homeland.

In the United States, Les Ballets Africains made a lasting impression on many who were able to hear and see their performances. In his autobiography, jazz legend Miles Davis recounts an opportunity to hear Les Ballets Africains in 1959 or 1960 in New York City:

I had gotten into the modal thing from watching the Ballet Africaine [sic] from Guinea… It was beautiful. And their rhythm! The rhythm of the dancers was something. I was counting off while I was watching them. They were so acrobatic. They had one drummer watching them dance, doing their flips and shit, and when they jumped he would play DA DA DA DA POW! in this bad rhythm. He would hit it when they fall. And man, he was catching everybody that did anything. The other drummers got them too (Davis and Troupe 1990: 225).

For someone as influential and innovative as Miles Davis to have been affected in such a way by djembé drumming and dancing is a testament to how compelling the experience must have been for those being exposed to it for the first time. The powerful drumming and dancing style of Guinea’s National Ballet garnered attention through what Heard and Mussa (2002) refer to as “energy charged” and “physically challenging dances and music” (p.149).
“Papa” Ladji Camara

One of the most influential figures in bringing the djembé to the United States was the lead djembé soloist for Les Ballets Africains, “Papa” Ladji Camara. He joined the ballet company in 1949 at the age of sixteen. After performing in the United States in 1959, Camara made a concerted effort to connect with musicians and dancers involved with the growing Pan-African movement in the West. He worked with choreographers and dancers such as Alvin Ailey, Charles Moore, Katherine Dunham, and Pearl Primus. He also had opportunities to work with the musicians Mongo Santamaria, Nina Simone, Yusef Lateef, and as mentioned in the previous chapter, jazz drummer Elvin Jones. While performing in New York he connected with the already established African percussionist, Michael “Babatunde” Olatunji from Nigeria. This led to many years of touring and collaboration until Olatunji passed in 2003. Though the djembé is not from or traditionally played in Nigeria, Olatunji adopted the djembé and the dunduns from Guinea to his group after his association with Camara (Flaig 2010: 254-255).

These collaborations led to more exposure for the djembé in the Western public eye. Camara is thought to have trained a generation of American players through his workshops in the US and his school in the Bronx called The Ladji Camara African Dance Studio, which opened in 1971 (Charry 1996: 66, Flaig 2010: 255). By providing non-Africans an opportunity to study and perform these traditions, Camara opened a door that would allow the djembé to make headway in its approach to world recognition in the same way that the conga drum from Cuba had done before it through the Afro-Caribbean communities in the United States (Charry 1996: 66).
**Famoudou Konate**

In the 1980s, a new generation of master drummers from Guinea began to find an outlet in markets outside of West Africa. Famoudou Konate, the lead drummer for Les Ballets Africains after Ladji Camara, from 1958 through 1984, established himself as one of the premier djembe teachers in Europe. He became the first African musician to join the teaching faculty at Berlin’s Academy of Arts in 1996 when he was awarded with an honorary title (Friedberg 2001: 26). This type of recognition once again allowed the djembe the opportunity to become an instrument of international status outside of its traditional setting.

**Mamady Keïta**

Arguably, the most renowned djembe master and teacher on an international level is Guinean Mamady Keïta. In 1964, at the age of fourteen, he began his professional career with Guinea’s Le Ballet National Djoliba, another state sponsored ballet company (Billmeier 1999: 36). As with Ladji Camara and Famoudou Konate, Keïta was given the opportunity to tour the industrialized world performing professionally on the djembe. In 1991, he started his own school in Brussels called *Tam Tam Mendingue*. Shortly after, in that same year, he starred in a documentary film by Laurent Chevallier entitled *Djembéfola*. The film, which follows Mamady back to his home village of Balandougou, Guinea for the first time in twenty-six years, became an international hit (Billmeier 1999: 37). Along with the film, he has released numerous albums and videos presenting collections of traditional and ballet style drumming.
Since its initial establishment in Belgium, Keïta’s *Tam Tam Mendingue* school has expanded to locations in Asia, North America, and the Middle East. He has created a curriculum that is administered by certified instructors at each location. Presently, Keïta resides in Monterrey, Mexico where he oversees a school and conducts workshop retreats that are open to the public (see [http://ttmda.com](http://ttmda.com)). As a part of the Westernization process in transmitting the rhythms and the information about their purposes, a type of tablature reflective of western notation has been incorporated that can be found in Uschi Billmeier’s 1999 book *Mamady Keïta: A Life for the Djembé* and in Mamady’s most recent book of rhythms, which is a follow up to Billmeier’s collection entitled *Nankama* (2014).

The hybrid tablature consists of units consisting of stems and flags reflective of standard Western notation. The modification occurs as the standard note heads are replaced with an X for the slap stroke on djembé and the closed stroke on dunduns, a B for a bass stroke on djembé, and a blackened note head for the tone stroke on djembé. Rather than incorporating standard rests, a grid of slashes of equal length represents the space in which no notes are played.

In addition to workshops, schools, recordings, and books, another development, starting in the 1980s, has led to easier accessibility to learning and playing djembé outside of West Africa. Many industrial percussion instrument manufacturers now make djembés that are found at instrument retail stores across the globe. Established instrument companies such as Remo, Latin Percussion (LP), Toca, and Meinl offer both screw tensioned and rope tensioned drums. Traditional drums made in Guinea, Mali, and Ivory
Coast are becoming more widely available in the United States through internet
companies and specialty import shops such as Portland, Oregon’s *African Rhythm
Traders* (see [http://www.rhythmtraders.com](http://www.rhythmtraders.com)), Long Island, New York’s *Wula Drum* (see
[http://www.wuladrum.com](http://www.wuladrum.com)), and Asheville, North Carolina’s *Skinny Beats Drums* run by
master drummer Billy Zanski (see [http://www.skinnybeatsdrums.com](http://www.skinnybeatsdrums.com)).

**B. Michael Williams**

A growing number of universities in North America are offering some form of
West African drumming and dance through ensemble classes offered in music and/or
dance departments. At present, the most common West African ensembles found in North
American universities seem to focus on drumming and dancing from Ghana (Dor and
Worlasi 2014). Even so, the djembé has found a market among college music programs at
schools such as The University of Kansas, Duke University, and Winthrop University in
Rock Hill, SC where Dr. B. Michael Williams has led djembé ensembles since the early
1990s. Through regular master classes with Guinean drummer/dancer Mohamed Da
Costa, now on faculty at The University of Florida, a repertoire has been established and
new pieces are added often.

In addition to leading his ensembles, Williams has published several solo pieces
for djembé including *Kirina Dreams, Tiriba Kan,* and *Recital Suite for Djembé,* which
includes movements based on the traditional rhythms Djole, Lamban, and Lenjengo. He
has also published several articles for the journal *Percussive Notes* that include detailed
transcriptions of Mamady Keïta’s solo phrasing on the rhythms Kassa, Mendiani, and
Kuku (Williams 1997, 1999, 2002). These teaching tools are designed to give Western
students what Williams calls “a point of departure toward developing your own creative imagination” (1999: 61). This idea of transcribing an improvisation is essentially the same approach that many jazz musicians take in order to develop their own idiomatic vocabulary.

Considering that this music stems from the oral tradition, it is imperative for students to listen actively and extensively, and to watch master drummers and ensembles in order to gain the proper perspective on rhythmic sensibilities and time feel. It is important to point out that notation is simply a tool designed to aid individuals in understanding some of the organizing principles of a given rhythm. The feel of a particular groove cannot truly be translated in any other way than to experience it aurally and from a physical level. After all, this is dance music and the rhythms are designed to compel one to move their body from a place of intuition.

As the djembé and dunduns have travelled to the west via master teachers such as Ladji Camara, Famoudou Konate, and Mamady Keïta, the primary method of transmitting information has remained of the oral/aural tradition model. The adoption of Western methods such as notation and books has surfaced recently from both Konate and Keïta yet in their classes, they still primarily resort to teaching from a rote method approach (personal experience).

In the next chapter, a synthesis will be drawn between the drum set and the djembé. Traditional djembé rhythms will be applied to the drum set and notation will be provided along with a recorded video example. The hope is that the audio-visual component will provide students with an opportunity to approach this as much in the
oral/aural tradition approach as in the Western notation model. The recordings are designed to allow students to grasp the groove sensibility of these composite adaptations.
CHAPTER IV
THE WEST AFRICAN DRUM SET

In the same way that Afro-Cuban (Malabe and Weiner 1990, Uribe 1996), Brazilian (Da Fonseca and Weiner 1991, Uribe 1994, Kettner 2013), Balkan (Krillzarin 2011), Korean (Barker 2015), and Ghanaian (Hartigan 1995) percussion ensemble traditions have been translated to drum set reductions, the rich complexity of djembé and dundun rhythms from West Africa can too be applied to drum set performance.

It should be noted that the general aim of these texts is to provide a new platform on which a percussionist might expand his or her technical, musical, and conceptual levels of performing. Each book provides background information on the cultures from which the rhythms are drawn. From a contextual standpoint, the application of these styles and traditions does not have to be limited to a traditional format. On the contrary, it is likely that many individuals will find new applications of the rhythms to a wide variety of settings.

In this chapter, a selection of rhythms from Guinea, Ivory Coast, and Sierra Leone will be analyzed. Timbres of the instruments in the ensemble will be carefully matched with like timbres on the standard drum set. The djembé in the West is often used in non-traditional settings as a replacement or substitute for the standard drum set consisting of bass drum, snare drum, tom-toms, and cymbals. The djembé’s tonal spectrum, from the low bass to the high slap, makes it a suitable analog to reflect the bass drum and snare
drum relationship of a drum set. In recent years, percussion instruments with wide tonal spectrums from other cultures such as the Peruvian *cajón* and the Irish *bodhran* have seen similar applications as drum set substitutes for a variety of styles outside of their respective traditions and canons.

In this study, the drum set is being manipulated so as to mimic not only the tonal colors of the djembé, but also of the three bass drums collectively known as dunduns. By adding metal sounds via the cymbals or added bells, the drum set can easily be modified to emulate the sounds of a djembé ensemble. Extra pedals can also be added to the set to incorporate bell sounds with the feet.

The following section will highlight traditional techniques and patterns on the instruments of the traditional ensemble. By gaining a solid understanding of the proper techniques and sounds associated with the traditional instruments, individuals will be able to maximize the potential for incorporating these unique relationships on to the drum set.

As players become familiar with the West African instruments and their techniques, experimentation might also include building a drum set that includes the traditional instruments in place of the drum set analogs. For example, a dundunba could be modified in order to play with a kick pedal and the djembé could replace the snare drum. For the purpose of this study, focus will remain on adaptation of djembé rhythms to the modern drum set.
Figure 1. Djembé Bass Stroke Video

Djembé Bass Stroke

The djembé has three basic stroke types that range from low, middle, and high pitches, respectively. The lowest of the three strokes, represented in figure 1, is called the bass. First, to attain a clear bass sound, the drum should be tilted away from the player when seated in order to allow the drum to resonate. If the opening at the base of the drum is flat on the ground, the bass stroke will be muted and practically inaudible. When the drum is played from a standing position, this is not an issue.

This stroke is achieved by placing the flat hand in the center of the drum. With a relaxed arm, wrist, and hand, the player makes full contact with the palm and fingers on the drum’s center. An upstroke immediately follows the attack in one fluid motion. An apt analogy for the motion and feel of the stroke would be that of bouncing a basketball.
Djembé Tone Stroke

The stroke that falls in the middle of the range of the djembé is called the tone. This technique requires the player to play with the upper half of the hand from the upper palm to the tips of the fingers. In order to achieve a clear and focused tone without too many overtones, even contact must be made across the entire striking surface of the hand. One way to practice this is to place the hand in the center of the drum in the bass position. After this, the player will slide his or her hand back toward the edge of the djembé, stopping when the knuckles reach the edge. The thumb should be extended back out of the way so as to avoid inadvertent contact with the edge of the drum. From here, a stroke similar to the bass stroke will be employed. The player should be relaxed and intent on making full contact with the surface area of the fingers and upper hand. See figure 2.
Djembé Slap Stroke

Perhaps the most recognizable stroke of the djembé is the slap. This is the highest in pitch of the three basic strokes. It can be attained by relaxing the fingers to a point that they become extremely supple. In contrast to the tone, the slap only incorporates the surface area of the tips of the fingers to produce the sound. By snapping the fingertips against the drum in a bullwhip type of motion, a high partial will be heard from the surface of the drum. The hand position in relation to the drum will be essentially the same as that of the tone. The difference is that only the fingertips will strike the drum instead of all of the fingers. One analogy for the motion created during this stroke is the visual of snapping a towel. The fingers are so loose that once the hand sets them in motion, they
simply strike the drumhead under the shear force of inertia initiated by the arm and wrist.
The video in figure 3 will demonstrate the slap.

In order to mimic the sounds of the djembé on the drum set, one can explore the many possibilities of tuning and playing techniques. The central component on the modern drum set is the snare drum. This versatile instrument typically ranges in size from thirteen to fifteen inches in diameter. The most common size is fourteen inches in diameter. Modern djembés can also fall into this same general range of head diameters. As such, the high pitch slap can often be achieved by playing close to the edge of a snare drum with a standard drum set weight stick. For a clean djembé-like slap, one should consider disengaging the snares from the drum in order to create a more defined slap sound. Having said that, even with the snares engaged, a slap type effect could be accomplished. A sheet metal rattle called *ksink ksink* is often attached to the djembé to add a metallic shimmer to the sound. This embellishment could also be perceived as a subtle snare response.

The bass and the tone strokes of the djembé can be emulated by a combination of open snare drum sounds and tom-tom sounds. The composite rhythms for drum set presented in this chapter will assign the tone and bass strokes along with those of the highest dundun, called kenkeni, and the middle dundun, called sangban, to drum set toms. The lowest dundun called dundunba will most commonly be delegated to the drum set bass drum. Bell patterns will be represented through attached cowbells, hi-hat, or other cymbals.
The Rhythms

Three popular djembé rhythms will be presented in this section. They are: (1) Kuku, (2) Djole, and (3) Sorsornet. It is important to note that these names also represent the accompanying dances. Attention will be placed on these traditional rhythms for djembé and dunduns and how they apply to the drum set adaptations. Each rhythm has a specific purpose in its customary application. In all three cases, the majority of these rhythms will appear at popular celebrations or in the ballet context (Billmeier 1999, Charry 2000: 22).

The orchestration of the ensemble has become somewhat standardized through the ballet model. In village settings, more variety might be found when it comes to number of and types of drums. The standard ballet instrumentation, which is what will be applied to the drum set, consists of a set of bass drums collectively called dunduns that are graduated in pitch from high to low. Individually, from high to low, they are called kenkeni, sangban, and dundunba. Each drum has an iron bell attached that is struck with a bolt or another metal stick-like object. There are also two accompanying djembés and a lead djembé. In addition, a calabash rattle called djabara can often be found as a timekeeper.

Kuku

Traditionally, the rhythm called Kuku was played by the Manian people in the southeastern part of Guinea known as Forest Guinea and in the western part of Ivory Coast. In its original form, the rhythm was strictly played on djembés without dundun accompaniment. The dundun parts were added in more recent times. This rhythm was
performed as a social dance that accompanied women as they returned from fishing. Presently, it is performed for a variety of popular festivals such as full moon celebrations and is in heavy circulation on the global music festival stage (Billmeier 1999: 150).

As an ensemble arrangement, Kuku provides a good example of interlocking rhythms between multiple voices. Particularly in the relationship between the three djembé patterns presented here, a dovetailing effect can be sensed between the alternating pairs of sixteenth note tone strokes. This type of common juxtaposition in African drumming is what Willie Anku refers to as an “interlocking relationship” that is based upon the superimposition of rhythms that share the same relationship to the regulative pulse (1997: 216). When this pattern locks, a sense of forward motion propels the overall energy of the piece.

In general, a standard pattern referred to as the break or signal will be played at the beginning and end of sections to signal drummers and dancers of a start, shift in movement or rhythm, and stop. This will be heard at the start and finish of the djembé and drum set examples. This pattern differs depending on the meter and the specific rhythm. For the rhythms Kuku and Djole, a common break will be employed that is associated with many of the 4/4-based rhythms. A notated example is represented below in Figure 4.

*Figure 4. Djembé Break in 4/4 Meter*
The first djembé accompaniment pattern utilizes all three of the standard stroke types. Due to the interlock that occurs between the tone strokes of each accompaniment djembé pattern, it is important for players to differentiate between tone and slap strokes. By manipulating the fingers, each stroke can be heard more clearly. For the tone stroke, the fingers should be held together in a uniform shape allowing for even contact across the surface area of the underside of the fingers. This will create a consistent paddle-like surface for striking the drum. The slap requires that the fingers be totally relaxed, if not
limp, and separated slightly to aid in the production of the high partial. The djembé 1 pattern is useful for establishing a method for shifting between all three strokes.

Figure 7. Kuku Djembé 2 Video

Figure 8. Kuku Djembé 2 Notation

Only tones and slaps are utilized in the second djembé accompaniment pattern. Once again, it is of upmost importance for players to achieve a clear contrast in sounds. The two adjacent tone strokes interlock between the adjacent tones of djembé 1. The slaps on the upbeats of beats two and four line up in unison with those of djembé 1. This
type of orchestration contributes to the dense polyrhythm present in the ensemble and informs the decisions made in distilling these rhythms to a composite drum set variation.

Figure 9. Kuku Djembé 3 Video

![Kuku Djembé 3 Video](https://www.youtube.com/watch?v=rHBFxSHEjz4)

If video does not appear in box, click link below.

Figure 10. Kuku Djembé 3 Notation

![Kuku Djembe #3](image)

The third djembé pattern presented here is essentially a simplified version of the djembé 2 pattern. If desired, this pattern can serve as a substitute for the djembé 2 pattern if wanted. When this version is presented with djembé 1, a very clean interlock occurs without the unison slaps. This is also the pattern that the kenkeni performs and when the third djembé and kenkeni align, more rhythmic stability can benefit the entire ensemble.
When combined with djembé 2, it also assists in strengthening the downbeat pulse along with the bass strokes of djembé 1 on the downbeats. This pattern will be utilized in drum set variation 3.

*Figure 11. Kuku Kenkeni Video*

![Video: Kuku Kenkeni](https://www.youtube.com/watch?v=ElX_pM6MUKs)

*Figure 12. Kuku Kenkeni Notation*

Typically in Guinea, all three of the dunduns are played horizontally and have an iron bell mounted on the top. This is contrasted with dunduns found in Southern Mali which typically do not have bells attached. The sangban and dundunba patterns most
commonly play lead patterns that identify the rhythm. The kenkeni is more likely to play a generic accompaniment pattern found in several different rhythms (Charry 2000: 231). For Kuku, the kenkeni part plays a unison rhythm with djembé 3 in both the drum and bell patterns.

*Figure 13. Kuku Sangban Video*

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The sangban pattern utilizes two types of stick strokes on the skin that produce open and closed sounds. The open tone occurs when the stick strikes the head and rebounds immediately. The closed or press stroke is obtained by pressing the tip of the
stick into the head upon impact. As a result, the pitch rises slightly and the decay of the attack is shortened. This effect can be reproduced on the drum set tom-toms. An X is used to denote where closed strokes will occur. The floor tom makes a solid substitute for the sangban based on its position in the hierarchy of tom-toms and bass drum. The bell pattern mirrors the drum part while adding anticipatory attacks before the second and third drum strokes. Above are the notation and video for the sangban part for Kuku.

Figure 15. Kuku Dundunba Video

![Kuku Dundunba Video](https://www.youtube.com/watch?v=fhuoGDvl0MA)

If video does not appear in box, click link below.

Figure 16. Kuku Dundunba Notation

All of the individual patterns for Kuku are what would be considered one-bar ostinatos in a standard 4/4 meter except the dundunba accompaniment pattern. It is a two-
bar phrase that creates a polyrhythm every other bar. As well, it is one of the defining factors when listening to the arrangement of parts as a whole. A representation of the entire score is seen in figure 17. In the drum set arrangements of Kuku, the dundunba pattern will generally be assigned to the bass drum to be played with a foot pedal. The notation and the video are displayed above.

Figure 17. Kuku Score

Now that the traditional patterns and techniques for Kuku have been discussed, a look at how they can be applied to the drum set will ensue. Five variations will be presented, each with a modification. Due to the fact that one individual can not play every single voice in the ensemble simultaneously, a composite will be created to capture a selection of polyrhythmic characteristics from the ensemble to the single player model. Each variation will be explained with notation and video.
Variation 1 of Kuku for drum set incorporates the sangban and dundunba patterns on the floor tom and bass drum, respectively. This first variation places the sangban bell pattern on the hi-hat while the upbeat slap of djembé 1 is placed on the snare drum with the snares disengaged. As the dundunba and sangban patterns are the defining factors of the rhythm, they should make this variation instantly recognizable as Kuku.
Variation 2 substitutes the bell pattern from the dundunba for the sangban bell pattern on the hi-hat. Everything else remains the same. This subtle variation is demonstrative of a possible springboard for improvisation in the hi-hat voice. Considering that this music contains a fair amount of improvisation, it would be idiomatic to shift back and forth between the bell variations presented in variations 1 and 2. It is also likely that new ideas will present themselves through experimentation with these variations. The video and notation of variation 2 are represented above.
The third variation of Kuku for drum set involves moving the lead hand from the hi-hat/bell pattern to the first tom-tom. Instead of playing the broken bell pattern, the kenkeni/djembe 2 pattern will be placed on the tom-tom. Everything else will remain the same, including sangban on floor tom, dundunba on bass drum, and upbeat slap of djembe 1 on snare drum. In this variation, the left foot will play downbeats on the hi-hat pedal. This video example includes a modified hi-hat with rattles to simulate the sound of the djabara gourd rattle.
Variation 4 applies the syncopated sangban pattern to the bass drum instead of the floor tom. As a result, the closed/open stroke approach is optional. The hi-hat will once again play the sangban bell pattern. It is important to note that the ride cymbal bell can be substituted for the hi-hat or bell at any time. This time, the djembé 1 pattern will be presented in its complete form between the downbeat on the bass drum that coincides with the downbeat of the aforementioned sangban pattern. The pair of tones of djembé 1
are represented on the first tom-tom and the upbeat slap remains on the snare drum. In this variation, the sangban and djembé 1 patterns are the main focus.

Figure 26. Kuku Drum Set Variation 5 Video

Figure 27. Kuku Drum Set Variation 5 Notation

The final variation of Kuku for drum set is a much more abstract likeness of the original ensemble pattern. In this version, the dundunba pattern remains on the bass drum. The sangban drum rhythm is applied to the hi-hat along with the upbeat slap of djembé 1 on the snare drum. The video demonstrates improvisation and embellishment that might be applied. With all of the variations, improvisation is encouraged. This
particular variation could be employed in a wide variety of musical settings for the drum set including, but not limited to, modern jazz, Afrobeat, Afro-Cuban, Brazilian, funk, hip hop, and rock, to name but a few.

**Djole**

Very popular in West Africa, the rhythm Djole does not originate on the djembé and dunduns in Guinea. Instead, it comes from the Temine people of Sierra Leone where it was initially played on square frame drums called *siko*. Originally a mask dance in which a male would wear a mask impersonating a woman, this popular rhythm has become one of the best known of the djembé repertoire played for the end of Ramadan and other celebrations in Guinea and elsewhere (Billmeier 1999: 138).

The instrumentation for Djole includes two djembés and three dunduns with bells. The djembé 1 pattern repeats a one-bar ostinato while the djembé 2 pattern is a two-bar phrase. In contrast to the clear interlocking of tone strokes between the two djembé parts of Kuku, the complimentary djembé patterns in Djole blend in different ways. Anku refers to this trait as an “overlapping relationship” that consists of beats that are staggered in their orientation to the regulative pulse (1997: 215). Both djembé accompaniment patterns maintain the downbeat throughout. Djembé 1 incorporates a bass stroke on every downbeat while alternating tones and slaps on the upbeat sixteenth notes. Djembé 2 is typified by the grouping of four sixteenth notes played on tones in the middle of each two-bar phrase. As the two patterns are superimposed on one another, the composite that is created strengthens a perceived flow of driving sixteenth-note pulses.
As with the djembé 1 pattern for Kuku, the first djembé pattern for Djole employs all three basic stroke types in a similar fashion. Here a steady bass pattern is present on all downbeats while pairs of upbeat sixteenth notes alternate between tone and slap strokes. Like the kenkeni/djembé unison relationship in Kuku, the same is found here with these upbeat figures. This motive will be found in the first three drum set variations placed on the snare drum voice.
In some cases, a two-bar pattern will be juxtaposed against another one bar ostinato. This is the case with Djole’s djembé 2 part. Here, the grouping of four sixteenth notes at the end of the first measure stands out in the ensemble as a defining rhythm. This facet will be represented in variations 2 and 4 for drum set. Variation 2 requires the player to play the dense rhythm with one hand. Variation 4 for drum set utilizes both hands for the figure.
Once again, as in Kuku, the kenkeni part for Djole is a unison pattern between the drum and bell. This time it emphasizes the last two sixteenth notes of each beat, reinforcing part of the djembé 1 pattern. This pattern can seem very simple in the scope of the overall orchestration but it is crucial for driving the dancers and the other drummers. The forward motion created by this relentless pattern can drive the entire ensemble. When it locks with the djembé 1 part, a synergistic effect has the potential to elevate the energy of the performers to another level. The video and notation examples are presented above in figures 32 and 33 respectively.
The sangban pattern for Djole is straightforward and even, creating a steady pulse so the other more syncopated patterns in the ensemble can create tension. A straight eighth-note pattern on the bell underpins alternating closed and open strokes on each downbeat. When coupled with the driving dundunba pattern, a distinct backbeat can be discerned between the two that is similar to a standard rock backbeat drum set pattern.
As the sangban plays open strokes on beats two and four in alternation with closed strokes on one and three, the dundunba plays forceful open strokes on the downbeats of one and three. On occasion, the dundunba player can embellish the downbeat by adding upbeat eighth notes to the quarter note rhythm. This “backbeat-effect” gives the sangban and dundunba a drive that, when combined with the upbeat kenkeni pattern and the highly syncopated dundunba bell pattern, creates a rich polyrhythmic tapestry. The dundunba bell pattern is common to duple meter patterns and
is identical to the sangban bell pattern in Kuku. The interlock of the parts can be seen in the score represented in figure 38.

*Figure 38. Djole Score*
Variation 1 for drum set capitalizes on the relationship between the sangban and dundunba. As mentioned earlier, the alternation between the two voices creates a strong backbeat drive. In this variation, the bass drum covers the dundunba part while the first tom-tom represents the sangban. The snare drum, with snares disengaged, carries the upbeat sixteenth pattern of djembé 1. A bell can be mounted to a foot pedal and played while simultaneously playing straight quarter or eighth notes on the modified hi-hat. This video in figure 39 demonstrates the pattern with quarter notes in the left foot.
In variation two, the distinct sixteenth note rhythm of the djembé 2 pattern is placed on the first tom-tom while the other voices remain consistent from variation 1. From a technical standpoint, this variation can be physically challenging due to the density of the djembé 2 rhythm when played with one hand. It is possible to facilitate the sixteenth notes with two hands but the integrity of the upbeat djembé 1 rhythm on the snare drum will be compromised to some extent.
In some instances, one addition to the standard instrumentation of a traditional djembé ensemble is a set of dunduns played vertically by one individual in the ballet style. The player will use two sticks instead of one and, as such, will be able to play more complex patterns. In this drum set variation, a vertical dundun pattern is applied to the tom-toms and bass drum. As in variation 2, the physical challenge is to execute the rhythm with one hand while simultaneously emulating the djembé 1 pattern on the snare with the opposite hand while the left foot continues to step quarter notes on the hi-hat and bell.
The final drum set variation for Djole presented here is an abstraction from the original composite. The counterpoint between the sangban and dundunba are distilled to a bass drum pattern that also emulates the vertical dundun pattern of variation 3. The sixteenth note motive from djembé 2 can be played with two hands on the first tom-tom. In addition, a hi-hat/snare groove is superimposed on top to create a more modern aesthetic. Like the final variation for Kuku, this interpretation could lend itself to a wide range of applications.
Sorsornet

From the Western theoretical perspective, both Kuku and Djole would be considered rhythms that are most commonly felt in a 4/4 meter. The next rhythm, Sorsornet, can be easily framed in a 12/8 meter. Having said that, it is uncommon for native musicians to consider this metrical component in the same way that those trained in Western music would. Instead of a linear approach, natives might perceive the rhythms more from a cyclical approach, paying less attention to the Western notion of a singular downbeat and more to the integrity of any of the individual rhythms and how they might contribute to the polyrhythmic orchestration as a whole. For the purpose of clarity in this study, Sorsornet will be related to as a 12/8 rhythm.

Originally a mask dance of the Baga people from the Boke region of West Guinea, Sorsornet has also become a popular rhythm that has been incorporated into the repertoire of the national ballet companies (Charry 2000: 22). Thought to be a particularly auspicious mask, Sorsornet has been considered almost a deity by some villagers. The mask is venerated as a protector of the village against evil. Considered to have extraordinary powers, the Sorsornet mask is kept in the woods outside of the village and is only brought in two or three times a year in order to address any issues that village members may be experiencing. The rhythm is played while the mask is inside of the village (Billmeier 1999: 88).

This rhythm consists of three accompanying djembé patterns along with the three standard dundun patterns. The break for Sorsornet contrasts with the previous two
examples due to the difference in perceived meter. It is displayed below in Figure 47. The entire score is seen in figure 48.

**Figure 47. Djembé Break in 12/8 Meter**

**Figure 48. Sorsornet Score**
The first djembé accompaniment pattern contains a rhythmic motive that alternates the strokes, slap-tone-slap. The rhythm is very similar to what most would associate with the standard swing ride cymbal pattern. This association is interesting and will lend itself nicely to the drum set application. Above are the video and notation for Sorsornet djembé 1.
The djembé 2 pattern intersects with djembé 1 on every downbeat. From there, two upbeat tone strokes are played after the second and fourth downbeat slaps. This creates a call and response effect between the tone strokes of djembé 1 and 2. A common trait of West African and Afro-diasporic musics, the use of call and response often manifests in the form of vocal music when a leader sings a phrase and a chorus responds with the same line or a complementary answering phrase. It also appears on the micro and macro levels through a myriad of rhythmic combinations within the drum ensemble.
The third djembé pattern overlaps both of the first two djembé parts with constant eighth notes alternating between slaps and tones. This dense rhythm requires deft control of tones and slaps in order to create a contrast between the two as they rapidly progress.

The tone strokes of djembé 3 will sync with the tone strokes of djembé 2. If the third part is left out, a more clear interlock can be heard between djembé 1 and djembé 2.
The open stroke of the kenkeni pattern for Sorsornet falls on the third partial of each of the four main pulses of the measure, i.e. beats 3, 6, 9, and 12. The bell pattern reinforces the swing shuffle fell referenced in djembé 1. The kenkeni player, again, has the role of playing a driving groove that has potential to propel the entire ensemble forward. It is important that the individual playing this part does not turn the beat around to the downbeat as a result of the syncopation. Above are examples of video footage and notation of the kenkeni part for Sorsornet.
As is common in many of the rhythms of West Africa, a cross-rhythm can be felt in the sangban pattern for Sorsornet. The bell plays a three pattern that is reinforced by a closed stroke on the first pulse and an open stroke on the last. When juxtaposed with the downbeat slaps of all three djembé parts, a strong hemiola, or “two-against-three,” effect is achieved. This tends to be a prevalent characteristic of 12/8-based rhythms in djembé traditions. Above is the sangban pattern for Sorsornet.
One of the most defining patterns heard in the entire orchestration of Sorsornet is that of the dundunba. This two-bar phrase features a three-note motive that is, once again, phrased across a three pulse in contrast to the two pulse established in the djembé patterns and the kenkeni. The two-bar figure creates a compelling tension. In what Royal Hartigan refers to as the “multiple rhythmic perspective” (1995a: 13), one can perceive this 12/8 pattern in different ways depending on where they place the underlying pulse. Once one has established the feel as being in three, it takes some reconsideration to shift
perception back to four. This exercise of shifting perception is very useful in understanding that these rhythms can be heard in multiple ways.

Figure 61. Sorsornet Drum Set Variation 1 Video

![Video of Sorsornet Drum Set Variation 1](https://www.youtube.com/watch?v=ZhBOucnNb6I)

If video does not appear in box, click link below.

Figure 62. Sorsornet Drum Set Variation 1 Notation

![Notation for Sorsornet Drum Set Variation 1](image)

The first drum set variation incorporates all three dundun parts onto the tom-toms and bass drum. The high tom-tom plays the kenkeni upbeats while the floor tom has the open and closed strokes of the sangban pattern. The three note groupings of the dundunba are placed on the bass drum. In addition, the left foot will provide a steady four pulse with downbeats on the modified hi-hat and adjacent bell. From a coordination
development perspective, this is an excellent way to develop more autonomy on the limb that is playing the bass drum.

Figure 63. Sorsornet Drum Set Variation 2 Video

The first two djembé patterns are represented between the snare and first tom-tom in variation 2. The alternating tone strokes are heard on the tom-tom while the snare keeps a steady downbeat pulse, emulating the slap stroke from both djembé parts. The bass drum will continue to play the three-note dundunba grouping. The hi-hat will also resume the steady four pulses against the three bass drum pulses. The potential for
coordination development in this variation will, again, allow the player to gain more facility with the feet.

Figure 65. Sorsornet Drum Set Variation 3 Video

Variation 3 of Sorsornet for drum set applies the third djembé rhythm to the snare drum and first tom-tom. This time a steady stream of eighth notes alternate between slap and tone sounds. In contrast to variation 2, this version creates a slightly more oblique pattern in the hands that could be perceived as being in a three or a four feel due to the placement of the tone sounds in the third pair of eighth notes. The feet remain the same as
in variation 2. Alternation between variations 2 and 3 will provide the performer with a springboard for improvisation in the hands as the feet sustain the two-against-three ostinato.

*Figure 67. Sorsornet Drum Set Variation 4 Video*

![Video](https://www.youtube.com/watch?v=R9PQ2NKKEY0)

If video does not appear in box, click link below.

*Figure 68. Sorsornet Drum Set Variation 4 Notation*

The sangban bell and drum pattern are reproduced on the floor tom and adjacent mounted bell in variation 4. Once again, the bass drum continues to carry the dundunba pattern as the left foot keeps steady downbeats on the modified hi-hat. By incorporating the bell pattern with the open and closed sangban ostinato, more variety can be added to
the tonal palette represented in the composite. The bell pattern could also be placed on
the hi-hat or on a cymbal bell, such as that of a ride cymbal.

These adaptations of djembé and dundun rhythms for drum set are designed to
provide students with new avenues for coordination development along with an
appreciation for the rich tradition of West African djembé drumming. Through the
examples provided, the hope is that individuals will be able to synthesize these rhythms
and variations into an ever-expanding drum set vocabulary that can at once reflect the
traditions of djembé and dundun while simultaneously contributing to a broadened sense
of musicality with a wide variety of other styles. In the same way that, for example,
applying Afro-Cuban, Brazilian, or Middle Eastern rhythms to the drum set will expand
the performers perception and perspective in unique and individualized ways, the same
holds true for the study at hand.

Another important component of these rhythms for percussionists to consider is
that of improvisation. In traditional settings, a lead drummer will typically improvise
solos over the accompanying rhythms of the ensemble. This is most commonly used to
communicate with a solo dancer or dancers in both village and ballet style settings. It is
also a platform for the lead drummer to enhance the music considerably by displaying, in
many cases, a highly developed and often virtuosic approach to interacting with the other
drummers. With practice and creativity, one can also incorporate this concept with the
drum set variations. As mentioned before, there is no substitute for listening to master
musicians perform in person and on recordings. This concept of listening is highly
encouraged and, in the author’s opinion, an unavoidable prerequisite to developing a proper sense of feel and nuance in any style of music.
CHAPTER V
CONCLUSION

This study has sought to illuminate an association between the djembé of West Africa and the American drum set. These two instruments are fundamentally connected as a result of the shared heritage present in the African American communities of New Orleans. Through a look at similar research in the areas of Afro-Cuban, Brazilian, and Ghanaian drumming traditions and the drum set, among others, a point of reference was established. This relationship only serves to further facilitate the desire to incorporate these traditional rhythms of the djembé onto the Western drum set. As the drum set evolved over the twentieth century through developments in construction and musical concept, the scope of possibilities for coordination development and artistry has expanded exponentially. The goal of these adaptations of djembé rhythms to the drum set is to further push the potentiality of four-way coordination while also expanding one’s capacity for a broader vocabulary on the instrument. Hopefully, this concept will attract individuals to learn more about the traditions of the Mande of West Africa in addition to enriching their development on the drum set.
REFERENCES


