

**An Investigation of West African and Haitian Rhythms on the Development
of Syncopation in Cuban Habanera, Brazilian Tango/Choro
and American Ragtime (1791-1900)**

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Chapter One

Introduction

Rhythm is a part of the music of all cultures. This rhythm in music is an outgrowth of aural human language. The song of word as recitative form was used as a form of language among various peoples. Individual cultures employ distinguishing rhythmic characteristics in their music and language. In addition, individual cultures employ a variety of words to describe similar characteristics of music and musical forms. "In the field of rhythm, approaches and solutions change from country to country. But they also change from age to age within the same civilization" (Sachs, 1953, p. 21). Historically, changes in rhythms have been documented with the evolution of popular music and folk languages. Those changes occur for a variety of reasons including the influence of cross-cultural interactions.

The connections between African people and other nations is an example of cross-cultural interaction. Since the arrival of the first slaves, the music of West Africa has influenced music throughout the World. After 1520, the Spanish began importing slaves from West Africa to Saint Domingues (later Haiti) in the Island Hispaniola (Parker, 1996). Carpentier (1980) describes that in 1534, the first Spanish colonies in the Caribbean area had more than one thousand African slaves. The first importation of African slaves to Portuguese colonies occurred in 1538 (Appleby, 1983). The arrival of the first African slaves in English colonies occurred in 1619 (Southern, 1971). That African presence in the New World influenced the direction and formation of musical styles (Behague, 1979; Carpentier, 1961/1980; Kolinski, 1980; Maultsby, 1985; Slonimsky, 1947; Stevenson, 1980; Waterman, 1959).

Several researchers have investigated the West African rhythmic language (Arom, 1984, 1985; Jones, 1959; Koetting, 1992; Kubik, 1979; Locke, 1982; Mukuna, 1979; Nketia, 1987). Within those studies are discussions of both polyphony and polyrhythms in African music. The above-mentioned researchers offer discussions of African music and support the development of new research in the area of African influence in American music.

Arom (1985) describes the social aspects of traditional Central African music, the execution of polyphonic music, and the classification of various techniques employed by African people. He offers analysis of polyphonic musical elements from the African Continent and how that music, which is transmitted by oral tradition, can be studied and understood. Arom presents a detailed description of his method, his theoretical basis, and his anthropological verification. He includes analysis of the temporal structuring of African music in addition to the diverse polyphonic and polyrhythmic techniques used by African people.

Nketia (1974) offers "a broad survey of the musical traditions of Africa with respect to their historical, social, and cultural background, as well as an approach to musical organization, musical practice, and significant aspects of style" (p. ix). This research is a general introduction to African music.

Locke (1982) studied the African polyrhythmic music, in particular, the dance drumming of the southern Ewe speaking people of the Guinea Coast of West Africa. His work includes "a series of concepts about rhythm that help explain the complexities of off beat timing and cross-rhythm" in that music (Locke, 1982, p. 217).

The presence of African and European characteristics in American music, a reflection of the African and European influence in the New World, is another example

of cross-cultural interaction. The discovery of the New World at the end of the Sixteenth Century resulted in colonists (initially Portuguese and Spanish, followed by French and British) bringing African slaves to work in their colonies.

Waterman (1959) published "African Influence on Music of the Americas" which includes an examination of the dispersion of African music to the New World. The publication by Waterman is a foundation for the study of African music in that context.

Behague (1979) presents a panoramic view of Latin American music. He describes the characteristics of that music since the Colonial Period, and includes the Nationalism in Nineteenth Century through Counter-Currents music in the Twentieth Century. Slonimsky (1947) presents the music characteristics of the twenty Republics in Latin America. He describes music based on his observations from his tour of Latin America in the mid-Nineteenth Century. Although the text is dated, Slonimsky includes information regarding folk music, popular and erudite music, popular dances, percussion instruments and the main musicologists and composers of each Latin-American country visited.

Kolinski (1980) offers an analysis of Haitian music. He identified that the "text of Haitian songs is in Creole, derived from French and the language of indigenous Haitians" (Kolinski, 1980, p. 35). Kolinski describes Haitian instruments and Haitian rhythms. In addition, he offers a description of their [instruments] function in the *voodoo* (also spelled *Vaudou* or *Vodun* based on cultural region) cult, an African religious manifestation. Kolinski provides an application of his ideas through analysis of the text and rhythmic aspects of *voodoo* songs. He concludes that

despite Haiti's continuous exposure to European influences, African survivals are prominent in the indigenous music . . . the music permeates each of the many

aspects of *voodoo* (or *vodun* in native pronunciation), a complex of African belief and ritual which has shaped the religious life of rural Haiti. (Kolinski, 1980, p. 33)

Courlander (as cited in Stearns, 1967) found traces of at least thirty-seven African tribes in Haiti. He states that "the Negroes never forgot the drum rhythms of their own countries, nor their ancestors and deities. They never forgot how to make fine drums" (Courlander as cited in Stearns, 1967, p. 24).

Maultsby (1985) "explores the circumstances that contributed to the preservation of West African concepts in the three centuries of US Black music" (p. 26). She identifies "musical genres and corresponding stylistic features, which reveal that a West African heritage is the source for the musical norms and practices that govern Black musical performance" (Maultsby, 1985, p. 26).

Several researchers have studied Cuban music (Carpentier, 1961/1980; Fernandez, 1988; Fernandez, 1989; Lezcano, 1991; Ortiz, 1991; Parker, 1996). These works include discussions of Cuban music with rhythmic analyses of early and late Cuban styles. Carpentier (1961/1980) offers a foundation for understanding the evolution of Cuban music and supports the development of new research in the area of African and Haitian influences in Cuban music. He describes social, religious, and musical contexts from the Colonial Period to the Modern Age. Carpentier includes a description of Cuban nationalist composers, and analyzes their works regarding African and Haitian influences.

Fernandez (1989) studied Cuban Contradances through the Nineteenth Century, including works by Saumell. She demonstrates that the Contradances by Saumell for piano, represent an important historical point in Cuban music. Fernandez states that in

his works (Saumell) is “found a synthesis of the black music language, as a starting point to the development of the later [Cuban] styles” (1989, p. 116).

Manuel (1994) illustrates the role of Cuban music in a Puerto Rican musical context. He explores the process by which Puerto Ricans have appropriated Cuban sources from the Danza to the Salsa. Manuel (1994) concludes that “the history of Puerto Rican music as a whole can thus be seen as an ongoing rearticulation involving relatively indigenous genres and those which have been borrowed from abroad, primarily from Cuba” (p. 274). Manuel states that:

Since the mid-Nineteenth Century, these borrowed genres have not only become popular and taken root on Puerto Rican soil, but they have in their own time, been reinvented as local entities and celebrated by cultural nationalists as symbols of Puerto Rican identity. (1994, p. 274)

During the past few decades, available examples of early Brazilian popular music have been extensively studied by Brazilian musicologists (Alvarenga, 1946; Alves, 1971; Andrade, 1964, 1972, 1975 and 1989; Appleby, 1983; Araujo, 1963; Behague, 1979; Gallet, 1934; Garcia, 1997; Kiefer, 1978; Lucas, 1999; Muricy, 1963; Mukuna, 1979; Rezende, 1989; Sandroni, 1996). The researchers offer discussions of forms of traditional Brazilian music, dances, and instruments developed from African influence. Through these studies, the researchers present an overview of Brazilian folk music and popular music including an analysis of rhythm, melody, harmony, form, and instrumentation. In addition, Andrade (1964, 1965, 1972, and 1989) includes children’s songs, dramatic dances, religious songs, and descriptions of the choreography of the popular dances and Afro-Brazilian religious dances. An analysis of the oldest Brazilian songs, the Modinha and Lundu, are also presented in the studies by Andrade. Araujo

(1963) considers the Modinha and Lundu “the pillars of Brazilian popular music” (p. 11).

Behague (1979) asserts that “relatively little is known concerning art-music activities and production [in Brazil] until about the middle of the Eighteenth Century. Throughout the Colonial period the majority of music-making related directly to church services” (p. 70). Andrade (1964) also writes that there is much to discover and to explain regarding the earliest Brazilian popular music. Andrade confirms that “there is a silence of three Centuries in our [Brazilian] musical history” (1964, p. 8).

Garcia (1997) investigated the “history and performance practice of the Choro [BrazilianTango] [from Rio de Janeiro] originally a local, nationalistic style of playing popular European dances that evolved into a distinct Brazilian genre” (p. iv). He includes a discussion of the characteristic rhythmic, melodic, harmonic and bass line formulae included in the Choro (BrazilianTango)] form. Garcia offers descriptions and explanations of how the Brazilian Choro (initially called BrazilianTango) developed, which includes the use of a characteristic Lundu (Afro-Brazilian dance) rhythm. He states that Lundu is a dance and song genre of African origin “introduced to Brazil by Bantu slaves” (Garcia, 1997, p. 47).

Mukuna (1979) offers a comparative study between African music and Brazilian music. He illustrates via analyses the presence of the Afro-Brazilian syncopated rhythmic pattern sixteenth-note/eighth-note/sixteenth-note in the African Bantu rhythmic structure from Congo/Angola (the area from which the majority of Africans that were relocated to Brazil through slavery originated) (Garcia, 1997; Kubik, 1979; Mukuna, 1979).

The transplantation of the Angolan music in black Brazilian music was studied by Kubik (1979). The objective of his work was "to track down some aspects of the Angolan dimension in the panorama of African music/dance cultures in Brazil today, and also to discuss methodology applicable in the wider context of African-American cultural context" (Kubik, 1979, p. 8). According to Kubik and Mourao (as cited in Kubik, 1979), the Central African music, especially the Angolan culture "has been studied very little" (p. 11). Mourao states that

Angola Brazil's main Bantu-African connection, had been for a long time a little known area culturally, with the exception of the Lunda/Chokwe group in the Northeast. Angolan music, in particular, was virtually unsurveyed until the 1960s, and it is still widely unstudied until today. (as cited in Kubik, 1979, p. 12)

Several researchers have studied the African influences on North American popular music (Berlin, 1976; Harton-Brown, 1993; Stearns, 1970; Van Diest, 1976; Waterman, 1959). Within those studies are discussions regarding the evolution of American music including American Ragtime.

Stearns (1970) presents a discussion regarding the history of Jazz. He offers a foundation for understanding the evolution of American religious and popular music. Stearns (1970) describes fundamental points regarding Spirituals, Ragtime, Blues, and Jazz characteristics, including the New Orleans background. He concludes that "New Orleans was decidedly different from that of the rest of the United States . . . and it [New Orleans] was a special place in the story of jazz" (Stearns, 1970, p. 37).

Harton-Brown (1993) investigated the African-American influences on selected compositions by five American composers: four African-Americans – Harry Thacker Burleigh, Scott Joplin, William Grant Still, William Levi Dawson, and one Russian born

white American – Louis Gruenberg. The compositions were selected “to show the use of varied types of African-American folk music: Spirituals, Minstrels, Ragtime, Blues, and Jazz. The works of these composers demonstrate how African-American music became respected as an untapped resource for serious composition” (Horton-Brown, 1993, p. v).

Waterman (1959) “attempts to point out some fundamental facts [regarding American Ragtime music] that have been sometimes overlooked and to provide a general outline of ragtime’s evolution as a style, its growth, development, and decline” (p. 12). Carew and Fowler (as cited in Waterman, 1959) “called attention to the ‘overlooked genius’ Scott Joplin (1868-1917) and pleaded for more attention to ragtime, basing their case on its importance as a contribution to early jazz” (p. 12).

Stearns (1970) states that:

[T]his musical style [Ragtime] represents a deeper and more complete blending of West African and European musical elements with a greater borrowing from the European, than anything that had gone before . . . the general public first heard ragtime near the turn of the Century at a series of World’s Fairs in Chicago, Omaha, Buffalo, and St. Louis, where itinerant pianists from the South and Midwest found employment along the midways. (p. 140)

Van Diest (1976) investigated Ragtime rhythms. His dissertation entitled *The Rhythms of Ragtime: An Operational Analysis of the Music of Turpin, Joplin, Scott and Lamb* was developed at the Columbia University Teachers College. The complete dissertation was not available to this researcher due to issues of copyright (Appendix D).

Several researchers have studied the development of Afro-American music in Latin American countries – especially Brazil and Cuba (Alvarenga, 1946; Alves, 1971; Appleby, 1983; Andrade, 1964, 1972, 1975 and 1989; Araujo, 1963; Baptista, 1967;

Behague, 1979; Carpentier, 1961/1980; Fernandez, 1988; Fernandez, 1989; Gallet, 1934; Garcia, 1997; Kiefer, 1978; Kubik, 1979; Lezcano, 1991; Lucas, 1999; Mukuna, 1979; Muricy, 1963; Ortiz, 1991; Parker, 1996; Rezende, 1989; Sandroni, 1996). The availability of research regarding Afro-American rhythms in early North American popular music is limited.

Although several researchers have studied the history of Ragtime, no one includes analysis regarding its exact rhythmic origin. In addition, the available research does not include studies connecting American Ragtime with Latin American popular music (Cuban Habanera and/or Brazilian Tango/Choro).

Based on the available research, it seems that African music played an important role in the development of the popular music in the Americas. While the European musical tradition predominated and influenced the music from the New World through its harmonic and melodic elements – vocabulary, style and form – the music of Africa provided American music with its rhythmic complexity (Garcia, 1997). This rhythm is a factor in the development of the distinct Afro-American popular music.

One focus of this study is an analysis of the characteristic syncopation (the rhythmic pattern sixteenth-note/eighth-note/sixteenth-note) which is considered by musicologists to be an important characteristic rhythmic formula that emerged in the Nineteenth Century (Andrade, 1975; Appleby, 1983; Behague, 1979; Berlin 1976; Carpentier, 1980; Fernandez, 1988; Mukuna, 1979; Ortiz, 1991; Sandroni, 1996; Slonimsky, 1947). Vega (as cited in Fernandez, 1988) identified this pattern as the main rhythmic formula of the binary Latin American Cancioneiro (an organized collection of popular songs) and states that “this rhythmic figuration is not found in the rest of European music” (p. 82).

Available studies regarding this characteristic syncopation (the rhythmic pattern sixteenth-note/eighth-note/sixteenth-note) are not conclusive. The speculative nature of this information is described by Andrade (1987). He states that "the majority of the statements presented until today . . . [related to its origin] are peremptory statements, lacking documented basis" (Andrade, 1987, p. 397).

Musicologists seem to agree that this characteristic syncopation developed in the Americas by the African slaves (Andrade, 1989; Alvarenga, 1946; Behague, 1979; Carpentier, 1961/1980; Mukuna, 1979; Slonimsky, 1947; Sandroni, 1996). The exact location and time of that development varies among musicologists. Some musicologists believe that this characteristic syncopation is a transformation or variant of a basic African rhythm (Andrade, 1989; Alvarenga, 1946; Sandroni, 1996). Other musicologists believe that this pattern is a transformation of the Iberian ternary rhythmic music from African influence (Fernandez, 1988; Vega (as cited in Fernandez 1988); Carpentier, 1980; Ortiz, 1991). Finally, musicologists believe that this pattern is present in African rhythmic structures (or African time lines) and that it was transferred to European binary meter following its original rhythmic sequence of pulses (Kubik, 1985; Lucas, 1999; Mukuna, 1979).

The present study was designed to provide historical information and to illustrate rhythmic connections among popular music. The following is a description of the format of the dissertation.

Chapter I includes an introduction. Chapter II includes a summary of related studies and comparisons of each study to the present study. Chapter III includes an historical background of the West African culture and music, and an overview of the social, religious and cultural environments of Cuba, Brazil and North American colonies

from 1791-1900. Descriptions of the Tordesilhas Treaty, the slavery process, and an analysis of the temporal structuring of African polyrhythms, especially the Angolan music are presented here. In addition, Haitian music is analyzed through dances and songs to identify similarities with West Coast and Central African rhythms. Chapter IV includes analyses of the rhythms in Brazilian Tango/Choro, Cuban Habanera and North American Ragtime styles through the compositions of Ernesto Nazareth (1863-1934), Ignacio Cervantes (1847-1905) and Scott Joplin (1868-1917). Selected examples of the Brazilian Modinha and Lundu songs, and Cuban Contradances are also analyzed in this chapter. Comparative analyses between the African rhythmic structures – Haitian *voodoo* time lines and Angolan time lines – with the Afro-American styles of the Cuban Habanera, the Brazilian Tango/Choro and the North American Ragtime are also presented. In addition, an analysis of the characteristic syncopation and its relation to the African time lines was developed. Chapter V includes results, conclusions, and recommendations for future research. Chapter VI includes applications of rhythmic study and implications for music teaching and learning.

Limitations of the Study

This study is limited by the availability of information in the form of written music notation from 1511 (establishment of the first colony founded in the New World as noted in Carpentier, 1961/1980) to 1792 (first native popular music publication in Americas as noted in Behague, 1968). This researcher employed available music and texts cited by scholars, and relied on early manuscripts of music cited throughout the literature. This researcher selected specific composers from Cuba, the United States, and

Brazil to illustrate connections in the development of syncopation. Exact cultural influences are not possible to obtain. Therefore this study is limited to the use of available historical documentation and evidence of connections rather than documentation of causation.

Definition of Terms

The main element of this research is the syncopated rhythmic pattern sixteenth-note/eighth-note/sixteenth-note. To simplify this terminology, the researcher refers to this Afro-American pattern as "characteristic syncopation," a term borrowed from Andrade (1989). Others terms were created in this dissertation by this researcher, to best analyze the rhythmic sequences in the compositions. Those terms are as follows: false Tresillo, false Cinquillo, and Habanera rhythmic element. The definitions of these terms are included in the dissertation and in Appendix B. This researcher uses the term binary pulse and ternary pulse to represent duple pulse and triple pulse.

The following is a list of African music characteristics used in the present study (mentioned in the dissertation proposal). These characteristics are described by numerous musicologists (Arom, 1985; Kubik, 1985; Nketia, 1974). The following terms are defined in the dissertation (Appendix B)

Accent	Hemiola
Accentuation	Imparity Rhythm/Unequaled
Additive and Divisive Rhythm	Internal Cells
Alternation	Macro or Micro Rhythmic Period
Asymmetrical	Measured
Attack	Meter
Characteristic Syncopation	Metric
Duration	Metric Modulation
Figures	Metrical

Minimal Values
No Meter
Periodicity
Polymeter
Polyrhythm
Pulsation
Pulse
Rhythm Pattern

Rhythmic Cycle
Rhythmic Organization
Syncopation
Syncretism
Timbre
Time-Line
Traits
Unmeasured

In the course of the completing this research, the following terms were identified.

Those terms are also defined in Appendix B.

Delay Factor
False Cinquillo
False Tresillo
Gestalt Perception
Interplay
Habanera Rhythmic Element
Levels of Density

Rhythmic Structure
Standard Pattern
Strict Time
Stroke version
Temporal Reference

Hypotheses

The following are the primary hypotheses of the study, which were used to guide the approach to the research problems.

1. There is a rhythmic similarity among the Cuban Habanera, the Brazilian Tango/Choro and the American Ragtime music styles:

- The characteristic syncopation is included in the compositions by Cervantes (1847-1905/Cuba), Nazareth (1863-1934/Brazil), and Joplin (1868-1917/United States);
- The Haitian Tresillo and Cinquillo rhythmic elements are included in the compositions by Cervantes (Cuba) and Joplin (United States); and

- The Cuban Habanera rhythmic element is included in the compositions by Cervantes (Cuba) and Nazareth (Brazil).
2. The characteristic syncopation in the first beat of the measure (in the melody and in the bass line), as a common feature, is seen in compositions by Nazareth (Brazil).
 3. The presence of a delay factor in the performance of the characteristic syncopation is perceived in Brazilian music by musicians and researchers. (Delay factor is defined in Appendix B).
 4. Early musical compositions include the characteristic syncopation in each country at different times: Brazil (1792), Cuba (approximately 1856) and the United States (1890s).
 5. The simultaneous presence of the Haitian people and Haitian music in Cuba and in the United States is a common occurrence in the musical history of both countries.

Specific Hypotheses

Based on these primary hypotheses, the following are the specific hypotheses of the study:

1. There is a percussion rhythmic sequence of cyclical 12 pulsations in Haitian music that is comprised of both Tresillo and the characteristic syncopation rhythmic pattern in this order.

2. The above-mentioned Haitian rhythmic sequence is the foundation for American Ragtime.

3. The characteristic syncopation was developed in Cuba and the United States as an outgrowth of the Haitian rhythmic sequences.

4. The Brazilian characteristic syncopation found in the first beat of the measure, was developed before similar rhythms were developed in Cuba and the United States. The Brazilian characteristic syncopation was developed through a different process compared to its development in Cuba and United States, even though this pattern has the same African origin.

Purpose

With the intent of improving music pedagogy, the purpose of this research is to identify connections between the West African rhythms and Haitian rhythms on the development of syncopation in musical compositions (1791-1900).

Problems

The specific problems of the study are as follows:

1. To identify the characteristics of West African rhythms and Haitian rhythms;
2. To identify the rhythmic characteristics of music in Cuba and the United States from 1511-1791 and the development of syncopation that followed (1791-1900);

3. To identify the rhythmic characteristics of music in Brazil from 1511-1791 and the development of syncopation that followed (1791-1900);
4. To determine the connections between West African rhythms and Haitian rhythms on the Cuban Habanera as seen in the compositions of Ignacio Cervantes;
5. To determine the connections between West African rhythms and Haitian rhythms on the Brazilian Tango/Choro as seen in the compositions of Ernesto Nazareth; and
6. To determine the connections between West African rhythms and Haitian rhythms on the American Ragtime as seen in the compositions of Scott Joplin.

Chapter Two Related Studies

Introduction

Several researchers have examined Afro-American syncopation, an African rhythmic residue which has survived in the New World, however, few studies include issues of rhythmic organization in African music and its development in the Americas. Few studies include analyses that explain Afro-American rhythms with reference to concepts found in analyses of African music. The purpose of the present study is to investigate the influence of West African and Haitian rhythms on the development of Afro-American syncopation in the Cuban Habanera, Brazilian Tango/Choro and American Ragtime. Related studies were selected that include a focus on Afro-American rhythmic organization to help the understanding of the musical similarities between Africa and the Americas. Moreover, the conclusions presented by the other researchers offer an opportunity for comparison and a foundation for the present study. The following is a discussion of four representative studies chosen by this researcher.

The Lezcano Study

Afro-Cuban Rhythmic and Metric Elements in the Published Choral and Solo Vocal Works of Alejandro Garcia Cartula and Amadeo Roldan was written in 1991 by Jose Manuel Lezcano and submitted to Florida State University to fulfill the requirements for the degree Doctor of Philosophy. The purpose of the Lezcano study was "to illustrate the presence of Cuban musical elements similar to African musical elements, with a primary focus on rhythmic and metric procedures, in a specific Cuban art-music

repertory” (p. 16). The hypothesis of this study was that “there are Afro-Cuban rhythmic elements that bear a marked similarity to African rhythmic elements” (p. xi).

Lezcano offers a literature review that contains a summary and comparison of existing general studies of African rhythm and Afro-Cuban rhythm. He states that several dissertations exist which examine the rhythmic and the metric characteristics of the specific Afro-American music. “In none of these studies, however, is metric and rhythmic analysis the primary focus of the dissertation” (p. 31).

According to Lezcano (1991), the choice of an Afro-Cuban art music repertory for analysis is significant for three reasons:

1. There is the general paucity of theoretical works addressing Cuban music in particular, and Latin-American music in general.
2. Afro-Cuban music is the logical area to examine for strong evidence of African rhythmic and metric influences. African multi-part drumming practices survived perhaps more strongly in Cuba than in most other countries of the Americas, with the possible exception of Brazil . . . and,
3. Afro-Cuban music has had an influence which has extended far beyond the shores of the island. Afro-Cuban music is the basis of the popular musical style known as Salsa, which can be heard in many countries of the Caribbean basin (including Colombia, Venezuela, Puerto Rico, and the Dominican Republic, to mention a few), and in U.S. cities with large Caribbean Hispanic populations. Afro-Cuban music has also influenced modern popular musical styles in Africa (p. 14).

Lezcano offers a thorough description of Cuban music history including cultural influences. His work includes a discussion of the earliest known surviving example of

Afro-Cuban music: the Son of *Teodora*. This composition was written by “a late Sixteenth-Century musician from Santiago who performed both for popular festivals and in churches” (Lezcano, 1991, p. 29). The Son is one of the most common Afro-Cuban musical genres (Lezcano, 1991). In addition, he explains that this composition by Teodora is “remarkable for its use of call-and-response form and for its use of the characteristic [African] quintillo rhythm, notably in the third measure” (Lezcano, 1991, p. 29).

According to Lezcano (1991), no surviving examples of Seventeenth Century Afro-Cuban music exist. Those compositions, written by Cuban nationalist composers, are in the form of Contradance, Conga, Comparsa, Rumba, and Habanera. Lezcano concludes that those styles are “the product of hybridization between Cuban music’s two most dominant influences Spanish and African music” (1991, p. 22).

Lezcano outlines Afro-Cuban rhythmic characteristics through the analysis of the published choral and vocal works of Cartula and Roldan. He states that this repertoire includes several examples of African characteristics.

Lezcano (1991) presents definitions of terms and notational procedures to illustrate the idea that “concepts and terminology, borrowed from ethnomusicological studies of African rhythm, may contribute to an understanding of Afro-Cuban rhythmic characteristics” (p. xi). Figure 1 is a list of definitions of some of those terms to assist the reader to understand the conclusions stated by Lezcano.

Call-and-Response: A term used to describe alternation between a solo singer and chorus and also used to describe alternation of phrases between drums (p. 28);

Polyrhythms and Polymeter: A multilinear rhythmic texture, which consists of cyclical, ostinato rhythmic patterns. Each line need not conform to a single controlling meter; instead, each line may have its own meter, with independent accentual patterns and downbeats (p. 35-36);

Staggered Downbeats: A term used when independent African downbeats are seen in a monometric transcription of African music. This notation allows the true polymeters to be comprehended visually which often results in many ties and syncopation (p. 36);

Syncopation: A concept, which assumes a controlling, meter and beat against which cross-rhythms and cross-accents are placed in relief (p. 44);

Time-Span: A term which describes a fixed, cyclical aggregate of equal pulses (in strict time) that controls the interrelationship of multiple rhythmic patterns by serving as a point of reference for these patterns (p. 42);

Additive Rhythms: Rhythms which do not follow the regular internal divisions of the time-span (p. 45)

Divisive Rhythms: Rhythms which do follow the internal divisions of a time-span – more common to European-based music, but also found in African music (p. 45);

Time-Line: A rhythmic ostinato cell, which often contains in addition to the basic pulse the density referent. The simplest time-line would consist of an alternation of duple and triple rhythmic motifs (p. 54);

Horizontal Hemiola: A single rhythmic line within a polyrhythmic texture with alternation between two meters. This prominent feature from Spanish and African music (alternation of 3/4 and 6/8) is called “colonial rhythm” in Latin American music (p. 32);

Vertical Hemiola: The simultaneous occurrence of unequal conductor beats, as in polyrhythms. The horizontal and vertical hemiola is not unique to African music; it occurs also in the Western tradition, as can be seen in the example from Brahms’ Variations on a theme by Haydn (p. 47);

Rhythmic Cells: Rhythmic figures, which are likely a survival from Africa (p. 49);

Tresillo: A rhythmic cell based on an additive rhythmic concept of 3+3+2 (p. 49);

Quintillo: An elaborated version of the Tresillo based on the same Tresillo additive rhythm (p. 49);

Silent Downbeat: A measure or rhythmic pattern, which begins with an unarticulated downbeat in silence. It is a device common in African music and also in North American-derived music such as Jazz (p. 52); and

Metric Modulation or Downbeat Shift: The downbeat in the foreground metrical pattern is shifted earlier, and this change causes a redistribution of the accents, so that what were formerly upbeats become downbeats (p. 59).

Figure 1. Definitions of select African terminology from ethnomusicological studies.

Lezcano concludes that examples of African rhythmic characteristics were found in the selected compositions he analyzed. The following is a list of the African characteristics he identified: call-and response form, polymeter, polyrhythms (including vertical hemiolas), horizontal hemiolas, rhythmic cells (including those cells incorporating silent downbeats), additive rhythm, time-lines (or ostinati extended over many measures), and metric modulation. Finally, Lezcano states that the using of these rhythmic elements in the works written by Cartula and Roldan "is not merely an exotic or nationalist artifice of these composers, but a functional and integral part of their styles" (1991, p. 19).

Comparison of the Lezcano Study to the Present Study

The Lezcano study is similar to the present study in the rhythmic analysis of the African structures. Both researchers explain the rhythmic combination of the 8 pulsations (3+3+2) in the formation of the African Tresillo and the African Cinquillo. Both researchers agree that this rhythmic formation of 3+3+2 is an important rhythmic reference for Cuban music.

Another similarity between the Lezcano study and the present study is in the analysis of the Contradances from the Eighteenth Century. In addition, the Lezcano study and the present study refer to popular music from the United States with a focus on the survival of African drumming traditions.

One distinction between both studies is the extent to which Cuban music was compared. In the present study, Cuban music was compared to Haitian *voodoo* time

lines, to show the similarities between both rhythmic structures. In the Lezcano study, Cuban music was the sole focus.

A final distinction between the Lezcano study and the present study is the absence of the analysis of the characteristic syncopation pattern (sixteenth-note/eighth-note/sixteenth-note) in the Lezcano study. The analyses in the present study show that the characteristic syncopation appears in different periods and different rhythmic contexts when comparing Latin American music and North American music.

The Parker Study

An Analysis of Borrowed and Retained West African, Cuban, and Haitian Rhythms in Selected Percussion Ensemble Literature was written in 1996 by Don Nigel Parker, and submitted to the University of Texas at Austin to fulfill the requirements for the degree Doctor of Musical Arts. The purpose of the Parker study was to determine to what extent borrowed West African, Cuban, and Haitian rhythms are retained and/or altered in specific compositions for percussion ensemble including *Highlife* by Phil Faini, *Ritmica* No. 5 and No. 6 by Amadeo Roldan and *Ogoun Badagris* by Christopher Rouse.

Parker (1996) presents general background information that includes a discussion of West African people, musical instruments, and the musical techniques of African music making. He offers detailed analysis of the African rhythmic structures or phrases in strict time (or time lines) based on the Nketia (1974) study. Parker (1996) based on Nketia (1974) presents these African rhythmic phrases in the following three categories of pulse structure (Figure 2).

1. Two and multiples of two: two, four, eight, or sixteen pulses (duple rhythm);
2. Three and multiples of three: three, six, twelve, or twenty-four pulses (triple rhythm); and
- 3) The alternating section of duple and triple, that is, a linear realization of the ratio of 2:3 (hemiola). (Parker, 1996, p. 41- 43)

Figure 2. Pulse structure in African rhythmic patterns in strict time.

Throughout his research Parker explains that the phrase of twelve pulses (triple structure) could be divided into 5+7 or 7+5 rather than a regular division of 6+6. He also states that the phrase of 8 pulses (duple structure) could be divided into a grouping of 3+3+2.

Parker (1996) states that the West African music traditions and performers have a basic pulse. This pulsation is externalized by the use of hand-clapping and idiophones.

Parker (1996) analyzed Haitian music and Cuban music in his study. He uses the same process of analysis with this music as with his discussion of African music (*i.e.*, a background of the native people, instruments, and rhythms).

Parker (1996) states that the music in Haiti, especially in the early years of development, was a reflection of the West African lifestyle. Further, he states that Haitian religious practices are not different from West African religious traditions. The religious *voodoo* practice is directly related to the discussion and analysis of the Haitian rhythms, because the *voodoo* is the continuation of African tradition in Haiti – still in practice today.

Parker (1996) analyzed some of the main *voodoo* rhythms to investigate how the rhythmic elements are organized. Figure 3 includes a list of three of the Haitian *voodoo* rhythms selected by Parker.

Yanvalou Dance - is one of the first rhythms heard in a *voodoo* ceremony. The cyclical structure is in 12 pulses (p. 441).

Petwo Dance - is a nervous type of dance which is an imitation of the spirits behavior. This dance is in 8 pulses, but it is based in 4/4 traditional notation and uses a binary or duple slow pulse to create the rhythms even though ternary divisions exist (p. 450-451).

Juba Dance - the stick rhythm on the casing or shell is in 6/8. The Juba drum rhythm corresponds to the 12/8 of the Yanvalou if two measures are grouped together (1996, p. 456).

Figure 3. Three Haitian *voodoo* rhythms.

Parker (1996) explores the arrival of Haitian slaves in Cuba after the revolution in San Domingo in 1791 and during the Franco-Haitian revolution of 1895-1896. He describes how these historical events brought into Cuba a mass French immigration of Blacks, Whites (French), freed slaves, and Haitian people. Parker (1996) states that *voodoo* music was also popular in the southern states of North America during the slavery period.

Parker (1996) examined and analyzed the "Cuban rhythms of the Son and the Rumba as a way of understanding their cultural roots and musical effect on the evolution

of musical instruments" (p. 240). "The Son and Rumba are the major rhythms of Cuban cultures simply because all Cuban rhythms are directly or indirectly related to these rhythmic patterns, in instrumental music, song, text, dance styles, and musical forms" (p. 241). The Rumba rhythm preserved the West African rhythmic traditions, and the Son evolved and was influenced by Europeans.

Parker (1996) explains that a distinct clave rhythm pattern exists in the Son (clave refers to the "rhythmic line played by the Afro-Cuban percussion instrument of the same name") (Ortiz, as cited in Lezcano, 1991, p. 50). This clave pattern in 6/8 meter was converted to 2/4 meter. The ratio of 3:2, as a result of that change, is called Tresillo or Fuerte. Another rhythm that is related to the clave rhythm pattern found in a Son is the Cinquillo.

Parker (1996) states that the Rumba rhythm is employed in cult ceremonies of the Lucumi (from Bantu tribes) Arara (Dahomey) and Abakua tribes. "The Haitian influence is apparent in the Rumba combined with the immigration of the Dahomey (Arara) tribes along with the Comparsa and Conga styles they created during the revolution in the 19th Century" (Parker, 1996, p. 252).

Parker identified the following nine items for consideration when making comparisons among these compositions.

1. [T]he use of a constant pulse, either heard individually; 2. the constant pulse or time line as a reflection of the West African bell pattern known as the standard pattern; 3. the manipulation of the Cuban Son and Rumba to reflect a more duple feel in some instances while retaining its triple orientation like that found on most Haitian drumming styles such as Yanvalou; 4. the use of short rhythmic ideas in

addition to the constant pulse; 5. the spinning and weaving of these ideas into forms that expand the normal Western European idea of marches and parlor music; 6. the stress on duple and triple divisions of the rhythms rather than the meter indication for rhythmic validity; 7. the use of vertical and horizontal hemiolas; 8. the cross relationships of 3:2 are probably the most dominant in these pieces although Rouse and Roldan expand this concept to include 5:3 and 4:3 respectively; and 9. the most important example of the borrowed and retained rhythms of these selected percussion ensembles is their use of improvisation to create and maintain interest. (1996, p. 540-541)

In addition, Parker (1996) concludes that this music was influenced by the Gahu rhythms of West Africa, the Son and Rumba rhythms of Cuba, and the Yanvalou, Petwo, and Juba rhythms of Haiti.

Comparison of the Parker Study to the Present Study

The Parker study is similar to the present study in design, procedures, and approach to analysis. Both studies use analysis from the Nketia (1974) study to describe the African rhythmic structures. The present study, however, includes additional sources regarding African music.

In both studies, Haitian music was analyzed in comparison with African rhythmic structures and was a point of reference in Cuban music. The Parker study, however, included other analyses than those used by the present study as Parker focused on African, Cuban and Haitian percussion instruments. In addition, the present study

includes data obtained via personal observation of a *voodoo* ceremony in Haiti. This differs from the approach by Parker to collect data solely from printed materials.

Another similarity between the Parker study and the present study is that both studies include Haitian rhythmic patterns in traditional notation. Moreover, both studies include musical analyses of Cuban compositions to illustrate similarities. The present study includes African music presented with a symbolic notation.

One difference between the Parker study and the present study is the extent to which Haitian music was compared. Parker compares Haitian music with Cuban music. The present study includes Haitian music as a point of comparison between the Cuban and North American music. Haitian *voodoo* rhythms were used in this research to analyze American Ragtime, as the intention of this researcher was to identify the rhythmic similarities between Cuban and American music.

A final distinction between the Parker study and the present study is the absence of the analysis of the characteristic syncopation pattern (sixteenth-note/eighth-note/sixteenth-note) in the Parker study. This rhythmic pattern is viewed by this researcher as an important syncopated rhythmic formula that emerged in the New World.

The Sandroni Study

Transformations de La Samba à Rio de Janeiro (1917-1933) (Samba Transformations in Rio de Janeiro) was written in 1996 by Carlos Sandroni and submitted to the Université de Tours in France to fulfill the requirements for the degree Doctor in Musicology. The purpose of this study was to investigate how the Brazilian

Samba developed as a form of popular music in Rio de Janeiro during the first half of the Twentieth Century.

Sandroni presents a synthesis of Brazilian music and a broad description of studies regarding Brazilian popular music. To develop this study Sandroni reviews sources to identify the possible traits of folk music and African traditions in Brazilian music. Sandroni (1996) explains that similarities exist between folk music, indigenous music, and current popular music. He describes how the transition occurred between folk music and popular music to create a unique style of Brazilian music.

Sandroni (1996) presents concepts and historical references regarding both folk music and popular music in Brazil. He analyzes the ambiguous and polemic folk music and popular Brazilian music definitions and defines both categories as 1. "Folk music: music that does not include, a priori, a written or published form; and 2. Popular music: music that is and was always a written or published music form" (p. 26).

The Sandroni study includes a discussion of the Brazilian popular music history since the Colonial Period until 1930. In addition, Sandroni offers an analysis of the African rhythms using the Arom study (1995).

Sandroni (1996) presents the terms cometricity and contrametricity, concepts used by Kolinski (1973) to describe the symmetric and asymmetric musical systems. He states that Kolinski, with this new terminology, discovered the best way to explain both asymmetry and symmetry in World music. Sandroni used ideas from Arom (1985) and Kolinski (1973) to create a comparative study between African rhythms and Brazilian rhythms.

Sandroni labels the second chapter of his research the "Tresillo Paradigm" referring to the three rhythmic formulas of the Habanera or Tango African rhythm, the Tresillo rhythmic formula (using the Cuban terminology), and the sixteenth-note/eighth-note/sixteenth-note pattern (the characteristic syncopation, using the Brazilian terminology). His analyses illustrate the existence of this paradigm in published Latin American and European popular music of the Nineteenth Century. Sandroni states that the following musical styles: Lundu, Polka-Lundu, Caterete, Tango/Choro, Maxixe, and Samba from Brazil, the Habanera from Cuba, and the Fado from Portugal include the same syncopated rhythmic pattern of sixteenth-note/eighth-note/sixteenth-note. Sandroni (1996) states that the characteristic syncopation and the Tresillo paradigm "can be considered as equivalents or variants of one basic rhythm" (p. 52).

Sandroni (1996) demonstrates that the existence of the Afro Habanera or Tango rhythm dance (generally known as Cuban Habanera) is older than the Habanera genre in Latin America including Brazil. He shows that the manuscript collection of Brazilian Anonymous Modinhas from the Eighteenth Century entitled *Onde vais linda negrinha* includes the Afro Habanera rhythm in its melody. He asserts that this same pattern is also found in oldest Brazilian Polka-Lundu. Further, Sandroni states that the Habanera rhythm appeared independently and simultaneously throughout Latin America. This conclusion contradicts the beliefs of the majority of Latin American musicologists. Figure 4 includes an illustration of the Polka-Lundu *Vesgo nao namora* written in 1865, in which the African Habanera rhythm is present.

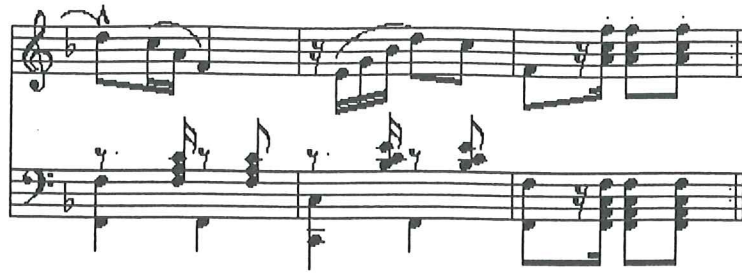


Figure 4. The African Habanera rhythm in the Brazilian Polka-Lundu *Vesgo nao namora*.

Sandroni (1996) demonstrates in his work, the equivalence of the “Tresillo Paradigm” in Brazilian music. To compare that music, he used the African rhythmic notation (123 123 12) instead of using the binary European division (1234 1234) in 2/4 meter.

Sandroni analyzed the group of Brazilian styles or Brazilian paradigms, which he identified as a *musical family*: Lundu, Polka-Lundu, Maxixe, Brazilian Tango, Habanera, and Brazilian Samba. Sandroni (1996) describes that the Afro-Brazilian Lundu rhythmic dance maintained the same rhythmic characteristics from its beginnings (Eighteenth Century Manuscript No. 1596) to the development of the Lundu song (first published in 1830).

Sandroni (1996) investigated the transformation of the European Polka in Brazil. In this research, Sandroni illustrates how the Lundu syncopated rhythms were incorporated (as the rhythmic sequence of four equal eighth-notes) into the Polka. From this interaction, emerged a new genre of Brazilian music: the Polka-Lundu, which appeared approximately in the year 1860 (Sandroni, 1996).

Sandroni (1996) states that the Lundu rhythmic sequence is also the foundation of the Brazilian Tango. He found a Tango dated from 1865 in National Library of Rio de

Janeiro which is the earliest Tango by Mesquita. It is considered by Baptista (1967) to be the first Tango written in Brazil.

Sandroni (1996) asserts that the Maxixe, a popular urban dance, emerged in Rio de Janeiro in the second half of the Nineteenth Century, in the same time period of the development of the Brazilian Tango. He states that the first published Maxixe dates from 1880. Sandroni concludes that the Maxixe is derived from the Polka-Lundu, Brazilian Tango, and the Afro Habanera rhythmic pattern.

Using his term for Brazilian styles, Sandroni states that the same Brazilian *musical family* is also the source of the development of the Brazilian Samba (1996). He demonstrates that the Brazilian Samba includes two cycles of transformation: the first cycle beginning approximately 1917, and the second cycle beginning approximately in the late 1920s or early 1930s.

Finally, Sandroni concludes that in two separate phases, two types of rhythmic structures defined the Afro-Brazilian music:

1. The first phase corresponds with styles that are structured on the Tresillo paradigm: Brazilian *musical family* of the Polka-Lundu, Brazilian Tango, Maxixe and the first stage of the Samba.
2. The second phase corresponds with the new Samba, in which rhythm is structured by the "Estacio paradigm" (term used by Sandroni, 1996). The "Estacio paradigm" (a term used to describe a specific group of Samba performers in the Carnaval in Rio de Janeiro) includes more rhythmic complexity than the Tresillo paradigm. Figure 5 includes both rhythmic formulas of the Samba, described by Sandroni.



Figure 5. The rhythmic formulas of the Brazilian Samba.

Comparison of the Sandroni Study to the Present Study

The Sandroni study is similar to the present study in content of the Afro-rhythmic influence in Brazilian popular music. Both researchers investigated the African Tresillo paradigm (using the Sandroni term), in published Latin American music of the Nineteenth Century. The Sandroni study and the present study included investigation of the existence of this Tresillo paradigm in Brazilian music using the West African music analysis by Arom (1985). The present study, however, includes other authors to explain and to define rhythmic structures in African music.

Both researchers present similar conclusions:

1. The characteristic syncopation pattern and the Habanera rhythmic element are included in Anonymous Brazilian Modinhas from the Eighteenth Century;
2. The Afro Lundu rhythmic dance is the foundation for later Brazilian popular musical styles – that includes the presence of the syncopated rhythms – developed in and after the Nineteenth Century (*i.e.*, Polka-Lundu, Tango/Choro, Maxixe, and Samba);

3. The African Habanera rhythm appeared simultaneously and independently throughout Latin America, including in Brazil;
4. The Habanera rhythm is found in early examples of the Anonymous Modinha, Lundu, and Brazilian Polka-Lundu. This means that this rhythmic pattern was developed in Brazil before the arrival of the Cuban Habanera genre in Brazil. Consequently, the Brazilian Tango and Maxixe are not derived from the Cuban Habanera genre; and
5. The Brazilian popular music includes more rhythmic complexity in the music developed in the second part of this century. This music was also influenced by African rhythmic language.

A distinction between the Sandroni study and the present study is in the continuation of the analysis of the Tresillo paradigm. The present study includes Haitian and African music as a source to analyze Cuban music and North American music, and to compare them to the Brazilian music. In addition, the present study includes analysis of the characteristic syncopation regarding its musical and rhythmic functions in the Brazilian Tango, the Cuban Habanera, and American Ragtime.

Another distinction between both studies is the use of the concepts of asymmetric and symmetric systems developed by Kolinski included in the Sandroni study. Although Kolinski (1973) and also Arom (1985) include the terminology developed by Kolinski, this researcher opted to focus on the African rhythms and their structures. An analysis with comparison of the European and African metric systems, was beyond the scope of the present study.

A final distinction between the Sandroni study and the present study is how the characteristic syncopation was understood and analyzed in both studies. Sandroni considers this rhythmic pattern as an equivalent or a variant of one basic African rhythm that was brought to New World. In the present study, the characteristic syncopation pattern was considered as an original rhythmic structure found in the African rhythmic language. The hypothesis of the present researcher suggests that the characteristic syncopation was converted in the European binary meter in Brazil without transformation of its original design.

The Berlin Study

Piano Ragtime: A Musical and Cultural Study, was written in 1976 by Edward A. Berlin and submitted to the City University of New York to fulfill the requirements for the degree Doctor of Philosophy. The purpose of the Berlin study was “to establish an overview of piano ragtime, a perspective within which individual achievements and historical trends can be discerned and evaluated” (p. iv).

The study is divided into 3 sections: 1. a survey of commentary from 1886 to 1929 to determine how Ragtime was considered by its contemporaries; 2. a musical study tracing the evolution of Ragtime to 1920; and 3. a survey of writings from 1930 to 1975 to discover how modern ideas of Ragtime developed.

In part one (comprising chapters one, two, and three), Berlin outlines the different aspects of the Ragtime term and Ragtime music. Berlin (1976) states that “originally, ragtime was identified as black music, but by 1903 it had lost much of its racial

restriction and gradually became accepted as America's most representative popular music" (p. 329).

Berlin (1976) asserts that there is evidence of the simultaneous existence of Ragtime music in other parts of the United States. He states that

[a]ccounts generally place the origins of piano ragtime in states bordering on the Mississippi River – specifically, Tennessee, Kentucky, and Missouri. From there it is supposed to have moved to Chicago, and then to New York. Despite the apparent conflict with reports of early and widespread "ragging" on the minstrel stage, there is abundant testimony that ragtime – in all of its forms – was introduced to the general public at or around the Chicago World's Fair of 1893.

(Berlin, 1976, p. 60)

Berlin asserts that there is no consensus regarding exactly where Ragtime began. It is, however, generally concluded among researchers and musicologists that its originators were black Americans.

Berlin (1976) states possible origins of Ragtime. He states that one possible origin was in an unidentified article from the Chicago Chronicle which suggests that the roots of Ragtime are in "patting juba" a Dahomey dance. (Dahomey is a tribe from West Africa). Berlin (1976) asserts that Krehbiel, a celebrated music critic for the New York Tribune, has the same point of view. Berlin (1976) states that Krehbiel

also listened to the Dahomey music at the World's Fair, and from his study of this and other African music (in published transcriptions) he concluded that more than half of his sampling of 527 melodies contained a rhythmic "snap" reminiscent of ragtime. (p. 42)

Berlin states (1976) that "it is possible that there was more than one style of patting juba, but without more evidence, juba can not be linked to ragtime except as a manifestation of the generally rhythmic nature of black dance music" (p. 45-46).

Berlin (1976) concludes that "while the 'patting juba' hypothesis seems plausible, no musical notation specifically relating juba to ragtime rhythms has been found" (p. 44).

Nathaniel Dett (as cited in Berlin, 1976) presents a contrary position. Berlin explains that Dett, a black composer who grew up in a Canadian community populated by former slaves, describes "patting juba" as follows. "Juba" is the stamping on the ground with the foot and following it with two staccato pats of the hands in two-four time" (Dett as cited in Berlin, 1974, p. 45).

The connection of the Ragtime with plantation music is another hypothesis presented in Berlin study. Berlin (1976) states that "rhythmic similarities with plantation music were noted, but ragtime was generally assumed to lack the spiritual values of the former" (p. 59).

According to Berlin (1976), the blues "adopted many of the rhythmic patterns of ragtime, and ragtime was increasingly influenced by blues notes and even the stereotyped harmonic formula of the blues" (p. 333). In addition, Berlin suggests that in the 1920s, Ragtime music began to influence Jazz.

Berlin analyzed over one thousand piano rags. He states that the formal conventions and harmonic conventions of piano ragtime compositions stem almost entirely from the ballroom march of 1880s and 1890s. The characteristic syncopation that distinguish a rag from a march, probably were used as ethnic mannerisms on the minstrel stage earlier in the Nineteenth Century, and by the

late 1880s appeared as racial traits in Negro character pieces. (Berlin, 1976, p. 332)

Berlin shows in his analysis that the early Ragtime was dominated by syncopation restricted to each half of a measure. He refers to this early rhythm as untied syncopation. After the turn of the century, the rhythmic dominance shifted to syncopation tied across the center of a measure – tied syncopation. In the 1920s, Ragtime, without supplanting tied syncopation, had acquired the name secondary Ragtime (Berlin, 1976). Berlin (1976) explains that secondary Ragtime is “characterized by repeated melodic patterns of three eighth-or sixteenth-notes set against the normal duple meter of a rag, the secondary ragtime achieves a unique effect of shifting accents within the continuous, three-unit pattern” (p. 332).

Berlin outlines ideas regarding Ragtime and the evaluation of style classifications developed by critics, through survey commentary from 1930 to 1975. He concludes that the movement that initiated the historical interest in piano Ragtime was the “ragtime revival” of the 1940s (Berlin, 1976). Two areas of study were developed from that movement:

1. biographical research, and 2. the location and duplication of sources. Berlin states that a third area, the categorization of piano styles, has been deficient. “Style classifications have been established with subjective, non-musical terminology; lacking historical and musical justification, these labels have created distorted views that, going unrefuted, have gained authority” (Berlin, 1976, p. vi).

Comparison of the Berlin Study to the Present Study

The Berlin study included a broad discussion of the scope of piano Ragtime music with historical foundations. Berlin offered descriptions of early manifestations, controversies, musical sources, and an historical perspective of Ragtime music. The present study includes Ragtime music in comparison with Latin American popular music styles (*i.e.*, Brazilian Tango and Cuban Habanera), which were influenced by African rhythms since the Colonial Period.

Both studies included analyses of specific Ragtime music. While the Berlin study included the traditional European musical language to identify the syncopated rhythms of Ragtime (tied and untied syncopation), the present study included the African and Haitian rhythmic structures or time lines, to develop a comparison among African rhythmic structures and the most characteristic rhythmic sequences within Brazilian, Cuban, and North American music. The Berlin study differs from the present study as Berlin did not include analysis of the characteristic syncopation.

The lack of specific studies regarding the exact origin of American Ragtime is discussed in both the Berlin study and the present study. Both researchers also agree that American musicologists present contradicting opinions regarding the origin of Ragtime.

The Berlin study included a brief overview of form and harmonizations of selected Ragtime compositions. The present study includes the form, tonality, and meter of the selected compositions as the main focus of this study was the rhythmic design of each style and the connection of Afro-rhythms with the African and Haitian rhythmic formulas.

Chapter Three
Historical Background
The Tordesilhas Treaty
The Portuguese and Spanish Colonists and the Slave Trade

The Tordesilhas Treaty was a political and religious agreement between Spain and Portugal signed in 1494, which divided the lands discovered in the New World into two areas (Pazzinato & Senise, 1993). The west lands belonged to Spain and the east lands belonged to Portugal. At this time, France and England, involved in internal political and religious fights in their own countries, did not navigate the waters beyond local boundaries. In addition, they were not engaged in commercial expansion, which means that they did not interfere in the division of the new lands (Pazzinato & Senise, 1993). Even though the Tordesilhas Treaty existed, France and England did not abide by it. During the Sixteenth Century and the Seventeenth Century, the French and English brought their ships to the Atlantic coast to explore the new lands (Pazzinato & Senise, 1993).

The New World colonization began after 1513 with the Spanish people through the conquest of the isle called Hispaniola. Between 1500 and 1536, the Portuguese divided its land (Brazil) into 15 large areas called Hereditary Captaincies (Pazzinato & Senise, 1993). The main Brazilian colonies at this time were Bahia, in the Northeast of Brazil and Rio de Janeiro in the East Coast.

Initially, the Spanish and the Portuguese colonizers in the Caribbean and in Brazil, unsuccessfully tried to enslave the native Indians to work in the agricultural production. With the growth of the agricultural productions (*e.g.*, sugar, tobacco and

coffee in Cuba, and the sugar cane in Brazil), and the discovery of gold mines and silver mines, the colonizers needed manual labor. The option for the colonizers was to bring slaves from Africa to the New World. The slave trading by Portuguese in the New World was then, “a natural continuation of the slave trade to Europe” (Appleby, 1983, p. 4).

“Most of the trade of slaves with the New World after 1500 took place in West Africa areas of Central Africa” (Parker, 1996, p. 5). Roberts (as cited in Parker, 1996) divides West Africa into three cultural regions (Figure 6).

1. The coastal rain forest of West Africa (slave and Gold Coast) representing the Yoruba, Ewe, Ashanti, Fon Ibo, and major Nigerian Dahomeyan and Ghanaian tribes;
2. The savanna belt (the ivory Coast and further north) representing Muslim groups such as the Wolof, Malinke of Guinea and the Hausa and Fulani of Northern Nigeria; and
3. The Congo-Angolan area representing the Bantu people (p. 5).

Figure 6. Three cultural regions of West Africa.

The exact number of slaves captured throughout African history is unknown. It is estimated that 4,000 to 5,000 slaves were exported per year by Portuguese from the Congo through the Mpinda Harbor (Mukuna, 1979). Slaves from different areas of West Africa were exported to the New World (Mukuna, 1979). Figure 7 includes a map of the extension of African cultures to New World through Slavery.

possibility of the largest number of slaves in the country at that time (Mukuna, 1979). Garcia (1997) states that “by conservative estimates, almost 3.5 million slaves were imported into Brazil in total” during the Colonial Period (p. 20). The records show that until 1851, slave trading occurred between Rio de Janeiro and Angola/Congo (Mukuna, 1979). Between 1838 and 1860 Brazil received both Bantu (Congo/Angola), and Yoruba slaves (Mukuna, 1979). Regarding the Bantu slaves in Brazil, Verger (as cited in Mukuna, 1979) writes that the African people from “Angola or Congo were only a few number in Bahia . . . but they were the largest number of slaves in Rio de Janeiro.” (p. 61). By 1819, the colony of Rio de Janeiro had approximately 600,000 inhabitants, of whom 60% were black or mulattos and 40% were white people (Garcia, 1997).

The French Colonies

In beginning of the Sixteenth Century, a French expedition discovered the Saint Lawrence River, which gave to France, the right to explore the east Canada area. One hundred years after this discovery, Spain permitted the French people to establish in the Mississippi Valley region.

The French area, called France Antartique, covered an immense region. This area later became Canada and the entire Mississippi Valley (Louisiana), except Quebec and Montreal (Todd & Curti, 1990).

According to Pazzinato and Senise (1993), initially the French people were more interested in conquering areas for strategic control of the commercial ship trade and transportation and not for systematic occupation of the lands of the New World. This

political position resulted in the French colonies being, at first, the best territories of adventurers and pirates (Carpentier, 1961/1980).

The cultural and social panorama of the French colonies, especially in the Caribbean isles, changed during the last decades of the Eighteenth Century with the presence of the impoverished French aristocrats, who looked for fortune in the new lands (Carpentier, 1980). Related to slaves in those French colonies, Parker (1996) states that

[d]uring the late 1700's and the 1800's, Saint Domingo [later Haiti] was one of the richest colonies in the French Empire, where sugar, coffee and other products were raised and exported to France and the United States. By 1775, the population consisted of about 30,000 adult white people and approximately 250,000 black slaves. (p. 346)

In the end of the Eighteenth Century, a serious political and social event occurred in that Isle. According to Parker (1996), a law, signed in the year of 1789 by Louis IX, gave the right to freedom only to Haitian mulattos. That decree changed the environment of the Santo Domingo colony (Parker, 1996). A conflict among the freed mulattos, black slaves and the white people resulted in the massacre of 1791 (Parker, 1996). That French slave revolution put to flight colonists and thousands of slaves, who dispersed and took refuge in the near Spanish Colonies of Cuba and Louisiana, now retaken by the Spanish (Carpentier, 1961/1980; Parker, 1996).

Stearns (1970) states that the Louisiana area was a French possession for forty-six years. In 1764, Louisiana was ceded by France to Spain, which governed it for the next thirty-six years (Stearns, 1970). The exact number of slaves in the Louisiana region in the beginning of the Colonial Period is unknown. Information regarding African people

in the Louisiana region is included in the Gumbo Ya-Ya African Journal (Stearns, 1970). That journal describes that the Louisiana area received more than 3,500 African slaves from Martinique, Guadeloupe and Saint Domingo during the years of 1776 and 1777 (Stearns, 1970).

Stearns, (1970) writes that “in 1800, Napoleon forced Spain to return the territory to France, and for three years no one in New Orleans was quite sure whether the city belonged to France or Spain. Then, in 1803, Napoleon sold the territory to the United States” (Stearns, 1970, p. 37).

The English Colonies

In 1584 Queen Elizabeth gave permission to English people to establish colonies in the New World – especially in what is now the Commonwealth of Virginia. In 1607 the first English colony in Virginia was established (Stearns, 1970). Between the years of 1607 and 1732, the English colonizers founded the other twelve colonies.

Stearns (1970) states that initially, the English people did not develop large plantations. Consequently, few Africans arrived in the English colonies at that time (Stearns, 1970). The African people were free and were contracted to work as servants. In exchange, they needed only to pay for the trip to New World (Stearns, 1970).

In 1619, the first twenty African slaves arrived in English colonies (Southern, 1971). In 1625, there were 1980 colonists on the mainland of America – 180 in Plymouth and 1800 in Virginia (Southern, 1971). In 1649, the population of Virginia was 15,000 white men and 300 black men (Southern, 1971).

In 1803, the North American government bought the whole Louisiana region from France and made it part of the United States. "From 1809 to 1810, more than 3,000 Africans arrived in Louisiana from San Domingo, by way of Cuba, their masters having fled the Haitian revolution" (Stearns, 1970, p. 38). In 1810, the population of New Orleans was approximately 10,000 inhabitants – half white and half black (Stearns, 1970).

Stearns (1970) states that the prosperity of the city of New Orleans at that time was due in part to the migration of Americans to the valleys of the Ohio River and the Mississippi River after 1776. He also states that the rapid development of New Orleans was due to the presence of French, Spanish, and African people, (inhabitants already installed in that region), whereas it was a mixed French/Spanish colony for 81 years.

Garcia (1997) demonstrates that few slaves were exported from West Africa to the British colonies. A comparative analysis between Brazilian colonies and British North American colonies presented by Garcia (1997), shows the numbers of slaves that arrived in both colonies during the Colonial Period:

From 1451 to 1600, 18% of the slaves exported from Africa went to Brazil and very few went to the British North American colonies; from 1601 to 1700, 41% of the slaves exported went to Brazil and virtually none to the North American colonies; from 1701 to 1810, 31% went to Brazil and 6% went to the British North American colonies/United States; from 1811 to 1870, 60% went to Brazil and only 3% went to the United States. (Garcia, 1997, p. 19)

The Music in the Colonies

The African slaves brought to the New World a similar rhythmic language, of which many characteristics survived in the new environment. Therefore, as Stearns (1970) described, the survival of those rhythmic characteristics “depended on whether the slave was sold to a British-Protestant or a Latin-Catholic colony” (p. 18). Waterman (as cited in Lezcano, 1991) reinforces Stearns ideas and states the following.

There is evidence to suggest that African drumming and polimetricity survived most strongly in those countries where authorities permitted the syncretism of African deities with Catholic saints. By contrast, in those countries dominated by Protestantism (such as the United States), where authorities did not allow such syncretism, polimetricity is more noticeably absent, although there exists other African rhythmic survivals. (p. 44)

Stearns (1970) describes the following, relating to the attitude and the religious point of view of both Catholic colonists and Protestant colonists.

If a planter was Portuguese, Spanish or French [Catholic colonists], he dominated the lives of his slaves out hardly – and often with cruelty – but he did not seem to care about what a slave thought or did in his spare time so long as it did not interfere with production . . . with a British owner, however, a slave was likely to change his ways more quickly to be much more concerned about what a slave did or thought in his spare time and whether or not he was a Christian . . . The Baptist and Methodist . . . strictly prohibited both dancing and drumming – the two outstanding characteristics of African religion. (p. 19-21)

Stearns (1970) asserts that the religious context influenced the early music in the New World. He concludes that the African rhythmic characteristics “tended to survive in Latin-Catholic colonies and to disappear or go underground in British-Protestant colonies” (Stearns, 1970, p. 22).

Rhythmic Influence and Cuban Music

The Spanish folk music and the Romance (also called Ballad), a dramatic European form from the Sixteenth Century, influenced the cultural environment of the Spanish colonies in the Colonial Period (Carpentier, 1961/1980). According to Stevenson (1980), the Spanish music – dramatic forms (Romance or Ballad), work songs, or music that accompanies walking – includes unique characteristics. He explains that

[a] large class of songs are unmeasured and also often have asymmetrical phrase lengths The mixing of 2 or more meters is a frequent feature Music that accompanies walking is often in triple rather than duple meter, and in some cases is even metrically irregular Dance music in Southern Spain rarely employs duple meter . . . the popular songs amounts to the insertion of a $3/2$ bar in the melody, creating syncopation against the $3/4$ of the accompaniment Songs in $6/8$ throughout are typical of Galicia [a region from the North West of Spain]. (Stevenson, 1980, p. 792-793)

Figure 8 includes an excerpt of a Spanish Ballad, that was sung in Extremadura (West of Spain), with a transcription by Garcia (Stevenson, 1980). This Ballad exemplifies alternating $3/4$ meter and $6/8$ meter, a Spanish popular music characteristic.



Figure 8. A Spanish Ballad.

African music was also present in the Spanish colonies through the slaves, since the early Colonial period. Carpentier (1961/1980) describes that the “Procession of the Corpus,” one of the most important Catholic traditions, included the African Habanera songs and dances.

That early connection between both African and Spanish music, is reflected in the musical context of the Spanish colonies. The similar African and Spanish asymmetric music, gave impulse to the development of the early Afro-Cuban music.

Several Cuban musicologists demonstrate that *Teodora* is the earliest Cuban musical example written in the Sixteenth Century (Carpentier, 1961/1980; Fernandez, 1988; Lezcano, 1991; Ortiz, 1991; Parker, 1996). Carpentier, (1980) describes that earliest musical example known as the Son of *Teodora* as follows: “the text is a classic octosyllable [European] Romance . . . the rhythm follows accurately one of the Hispanic patterns . . . call-and-response between soloist and chorus comes from the games sung in Africa” (p. 45-46).

Carpentier (1961/1980) states that *Teodora* was a black woman who was famous for her songs. One of these songs is the Son of *Teodora*. He asserts that this song, a unique composition example from the Sixteenth Century, is an example that represented Cuban popular music at that time. The following is the Son of *Teodora*, a transcription, via oral tradition, transcribed by Laureano Fuentes (Figure 9).



Figure 9. The Son of *Teodora*, a Cuban popular music from the Sixteenth Century.

This musical interaction between both cultures continued throughout the Colonial Period in the Spanish colonies. Carpentier (1961/1980) describes that in 1774, the Cuban Isle had 96,430 white inhabitants and 75,180 black inhabitants of which 44,633 were slaves. At this time, the dances in the black “bailes” (ballroom parties) alternated among the Afro Guarachas, Tangos, Habanera dances and the Spanish Zapateos and Tonadillas (Carpentier, 1961/1980).

Carpentier (1980) states that “a series of unexpected circumstances almost suddenly changed, in less than 30 years, the social panorama of the [Cuban] colony”

(p. 122). One of those circumstances was the arrival of the French Negro from San Domingo.

Fernandez (1989), Lezcano (1991), and Parker (1996) describe the importance of the Haitian slaves in Cuba. They assert that the French slaves brought with them to Cuba, after 1791, the French Contradance, and the original African rhythm elements of Tresillo and Cinquillo. Lezcano (1991) describes the Cinquillo as “an elaborated version of the Tresillo, and thus based on the same additive rhythm” (p. 49). The following is an illustration of the African Tresillo (two dotted eighth-notes/one eighth-note) and Cinquillo (eighth-note/sixteenth-note/eighth-note/sixteenth-note/eighth-note) that depicts the similarity between their rhythmic elements (Figure 10).



Figure 10. Example of African Tresillo and Cinquillo rhythmic patterns.

When the French Contradance arrived in Cuba after 1791, through French colonists and slaves, it “was adopted surprisingly fast and soon it was transformed in Cuban Contradance” (Carpentier, 1980, p. 129). In San Domingo, the French Contradances (a binary popular dance characterized by the bass line with by four eighth-notes in each measure) acquired a different rhythm. The African Tango rhythm, a similar rhythm to the African Habanera dance, was introduced in the bass of the French Contradance (Carpentier, 1961/1980). Carpentier (1961/1980) also asserts that slaves in

the Cuban colonies had performed the African Tango and Habanera dances since the beginning of the Colonial Period. He suggests that because of this Cuban tradition, the same rhythmic transformation also occurred in Cuba. The following is a description of the African Tango or Habanera rhythm introduced in the French Contradance (Figure 11).



Figure 11. The African Tango/Habanera rhythm introduced in the French Contradance.

Carpentier (1961/1980), Fernandez (1989), Lezcano (1991), Manuel (1994), and Parker (1996) conclude that the Afro-Tango rhythm or Habanera rhythm is found in the accompaniment of the Cuban Contradances written in the early Nineteenth Century. Carpentier (1961/1980), Fernandez (1989), Lezcano (1991), Manuel (1994), and Parker (1996) assert that the Cuban Contradance, (usually danced in 2/4 meter or 6/8 meter), was the foundation for the subsequent Cuban music styles. "The genres of the Clave, Criolla and Guajira developed from the 6/8 Cuban Contradance, . . . and the genres of Danza, Danzon and Habanera developed from the 2/4 Cuban Contradances" (Carpentier, 1980, p. 129).

Carpentier (1961/1980) explains that the Habanera or Tango appears without alteration in the Cuban Contradances from the beginning of the Nineteenth Century. He states that in the anonymous Cuban Contradance *Tu Madre es Conga*, a composition written in 1856, "this rhythm [Habanera rhythmic pattern] appears with a singular modification" (Carpentier, 1980, p. 82). Carpentier asserts that in *Tu Madre es Conga*

composition, the Tango/Habanera rhythm appears for the first time, with a tie between the two central notes which gives the rhythmic formula of the 3+3+2 values, similar to the Tresillo rhythm.

Carpentier (1961/1980) asserts that the Afro-American syncopated rhythm pattern of sixteenth-note/eighth-note/sixteenth-note (characteristic syncopation) is seen for the first time in the Cuban Contradance *Los Merengazos*. It was written by Juan Benedetti, approximately in the 1850s in the same period as the *Tu Madre es Conga* composition (Carpentier, 1961/1980). Carpentier suggests that this rhythmic pattern originated when the Cuban Negro's "put an accent out of place creating a strong change of the heavy time" (1980, p. 151). Figure 12 includes the characteristic syncopation pattern in *Los Merengazos*.



Figure 12. The characteristic syncopation in *Los Merengazos* composition.

The Tresillo, the Cinquillo, the Habanera, and the characteristic syncopation rhythms described in Cuban music history are also present in compositions by Ignacio Cervantes (1847-1905), especially his *Danzas Cubanas*. According to Carpentier (1961/1980), those Cervantes dances, composed between 1875 and 1895, are as important in the Cuban Isle as the *Norwegian Dances* by Grieg or *Slavonic Dances* by Dvorak are important in their respective countries.

Rhythmic Influence and Brazilian Music

According to several Brazilian researchers, little information exists regarding African music influence in Brazil until approximately the middle of the Eighteenth Century (Andrade, 1975; Araujo, 1972; Appleby, 1983; Baptista, 1967; Behague, 1979; Gallet, 1934; Kiefer, 1978; Muricy, 1963; Sandroni, 1996). Unlike the early Spanish interaction with the African slaves in Cuba, the Brazilian slaves did not integrate into Portuguese society, or in the social Portuguese events at that time. The Brazilian musical religious movement occurring in the first centuries of the Colonial Period was evident with the intensive participation by the Brazilian Indians (Appleby, 1983). Although there is limited documentation of this movement, the few existing accounts include information regarding the importance of this cultural movement of religious re-orientation by Portuguese Jesuits to convert the Indians in Brazil (Appleby, 1983; Behague, 1979; Rezende, 1989). Appleby (1983) describes the following regarding the Indian religious re-orientation movement in Brazil.

The Autos Sacramentales were one of the most important forms of religious instruction and entertainment used by Jesuits . . . It [*Autos Sacramentales*] consisted of dramatic religious productions with festive character, staging, costumes and often music. Twenty-one such productions in Brazil in the Sixteenth Century have been recorded. (p. 5)

Behague (1968 and 1979) describes the earliest Brazilian musical examples, which include the African rhythmic influence, in a manuscript Collection of Anonymous Modinhas from the Eighteenth Century found in Lisbon in the Library of Ajuda.

Behague (1979) describes those Modinhas as “a type of Brazilian love song in many ways similar to the French vocal Romance of the Eighteenth Century” (p. 93). Some of those songs include the Afro-American syncopated rhythm of the characteristic syncopation and the Habanera rhythm. This collection of manuscripts, is entitled “Two Eighteenth-Century Anonymous Collections of Modinhas.” It was found in the “Jornal de Modinhas (Modinhas Journal), published regularly in Lisbon from 1792 to 1795 by the Frenchmen Marchal and Milcent” (Behague, 1979, p. 93). The manuscripts of the Anonymous Modinhas from Brazil are included in an article by Behague “Mss. 1595/1596: Two Eighteenth-Century Anonymous Collections of Modinhas.” (1968). Figure 13 is an excerpt from the Anonymous Modinha 5 *Eu nasi sem coracao*.



Figure 13. Excerpt of the Anonymous Modinha from Brazil No 5 (MS.1596) composition from the Eighteenth Century.

The Afro-Brazilian Lundu dance, a popular genre of song and dance that developed in the same period as the Modinha, was also present in the Brazilian music and social context of the Eighteenth Century (Behague, 1979). Behague (1979) confirms that “originally an Afro-Brazilian dance, it also became a popular genre of dance and song in the late Eighteenth Century, cultivated in the aristocratic salons of Rio and Lisbon” (p. 93). The following is an example of the Afro-Brazilian Lundu dance rhythm (Figure 14).

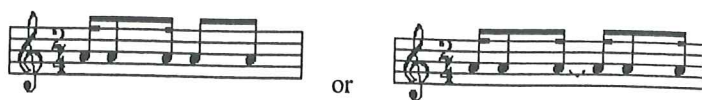


Figure 14. Example of the Afro-Brazilian Lundu rhythm.

Andrade (1964), Araujo (1963), and Kiefer (1978 and 1990) studied the influence of African rhythms on the development of the Afro-Brazilian Lundu dance. In addition, they assert that the Afro-Brazilian Lundu dance is the foundation for the development of the Brazilian Tango/Choro, and the Brazilian Maxixe. Baptista (1967) describes that in beginning of the Twentieth Century, “the [Brazilian] Tango subheading was substituted by the subheading Choro” (p. 131).

Several researchers conclude that there are identical rhythms found in the Brazilian Lundu dance and the Brazilian Tango/Choro (Appleby, 1983; Andrade, 1975; Araujo, 1972; Baptista, 1967; Behague, 1979; Gallet, 1934; Muricy 1963; Kiefer, 1978; Sandroni, 1996). Those styles include the sixteenth-note/eighth-note/sixteenth-note (characteristic syncopation pattern) in the melody and/or in the bass line. This same syncopated rhythm pattern is included on the first beat of each measure of music in both the Brazilian Lundu dance and the Brazilian Tango/Choro. Figure 15 is an example of the Brazilian Lundu dance rhythmic pattern and the Brazilian Tango rhythmic pattern.

Araujo (1972), Baptista (1969), Diniz (1963), Gallet (1934), Kiefer (1978), and Muricy (1963), describe the history of the Brazilian Tango/Choro and the Cuban Habanera. They demonstrate that the Cuban Habanera pattern appeared in Brazil approximately in the 1860s through the Spanish Theatre companies. They also assert

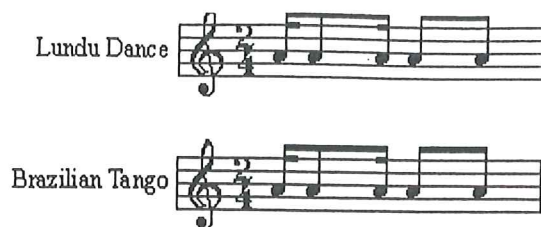


Figure 15. Example of Brazilian Lundu dance rhythmic pattern and the Brazilian Tango rhythmic pattern.

that the rhythm of the Cuban Habanera is one of the sources of the Brazilian Tango/Choro. The following is a depiction of the characteristic Cuban Habanera rhythmic pattern in Brazilian Tango/Choro (Figure 16).



Figure 16. Example of Cuban Habanera rhythmic pattern.

Baptista (1967) identified the compositions *Olhos Matadores* (1871) and *Ali-Baba* (1872) written by composer Henrique Alves de Mesquita, as the earliest compositions in which the word Tango appears in the title. These compositions include the Habanera rhythmic pattern or Tango rhythmic pattern. Kiefer (1990) presents the following analysis of the *Ali-Baba* Brazilian Tango: “in the first two measures, the accompaniment is typical from Cuban Habanera rhythm . . . The syncopation that appears [sometimes in the melodic line or in the bass line] after measure 8, is reminiscent the old Lundu rhythm” (p. 36). Figure 17 includes an illustration of the *Ali-Baba* Brazilian Tango in which the African Lundu and Habanera rhythms are included.

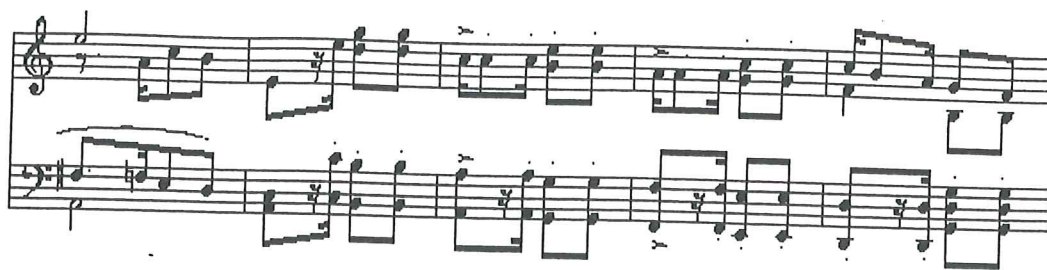


Figure 17. *Ali-Baba* Brazilian Tango, a composition from 1872.

Several researchers demonstrate that the characteristic syncopation and the Habanera rhythmic patterns are included in the Brazilian Tangos by Ernesto Nazareth (Andrade, 1972 and 1965; Baptista 1969; Diniz, 1963; Gallet, 1934; Garcia, 1997; Kiefer, 1978; Muricy, 1963; Sandroni, 1996). Araujo (1972) asserts that the compositions by Nazareth represent the Brazilian soul, and “his body of work is a sound dictionary of Brazilianism” (p. 28).

Delay Factor in the Performance of the Brazilian Popular Music

Rhythmic interpretation is another topic of research regarding Brazilian music. Appleby (1983) describes the following considerations regarding the performance of Brazilian popular urban music.

The common quality among Brazilian popular urban forms . . . is a question of the common presence of a “delay factor” in the performance of the pauses. The choreographic factor and the minute differences on application of the “delay factor” give each dance its specific individual quality. Without the knowledge of these factors a pianist attempting to perform the works of Nazareth is unable to

capture the characteristic quality of the sound, which has been transmitted by aural tradition and escapes definition in the score (Appleby, 1983, p. 80).

Delay factor, using a borrowed term from Appleby (1983), means a delayed and irregular performance of the internal rhythmic subdivisions of the syncopated rhythms in Brazilian music. The irregularity and unstableness of the subdivision of these syncopated rhythms, especially the characteristic syncopation pattern, comes from a natural rhythmic disturbance resulting in the Brazilian rhythmic characteristics. The following is a list of five characteristics of this natural delay factor found in the Brazilian music.

1. The irregularity and unstableness of the performance of the Brazilian popular rhythms is ancient. Andrade, (1989) states that it comes from the Brazilian blacks. He asserts that when the Maxixe dance appeared in Brazil in the second half of the Nineteenth Century, the composers perceived this characteristic. Andrade (1989) states that it was common that scores included a different rhythmic design to indicate the performance of the rhythm relating to a dance. He explains that the ancient transcription included four sixteenth notes and a triplet in the same design (Figure 18), to indicate the syncopation of that dance. Andrade (1989) explains that this transcription shows the difficulty of notating the real rhythm danced by the Brazilian blacks, by the composers at that time. He concludes that composers notated that rhythm as the European sixteenth-note/eighth-note/sixteenth-note pattern. Andrade (1989) also concludes that the same rhythmic irregularity continues until today in Brazilian popular and folk music.



Figure 18. Ancient Brazilian transcription of the characteristic syncopation pattern.

2. There are different functions of the syncopated rhythms. In Brazilian music, the syncopated rhythms of the characteristic syncopation and the Habanera rhythmic pattern represent two different functions:






- When the characteristic syncopation or the Habanera rhythmic pattern appear followed by two eighth-notes forming these sequences ( or ), they function as accompaniment.
- When the characteristic syncopation and the Habanera rhythm appear in this sequence ( or  or ), they function as melodic rhythm. In this case, these melodic rhythms can be in the bass line or in the top line, always following the melody. It is typical in Brazilian music, for these sequences, to appear several times in the same section of a composition. This double syncopated sequence (separate syncopations in the melody, and in the bass line) results in a natural unbalance of the subdivisions of each beat. Figure 19 includes an example of this double syncopation rhythmic sequence as melodic function, in the Tango *Turuna* by Nazareth.



Figure 19. Common rhythmic sequence in *Turuna* by Nazareth.

3. The sequence of the Habanera rhythm and the characteristic syncopation pattern is a common feature in Brazilian popular music. Normally, this rhythmic sequence includes a tie between the fourth sixteenth-note of the Habanera rhythm (first beat) and the first sixteenth-note of the characteristic syncopation (second beat), or a rest in the first sixteenth-note of the characteristic syncopation. This tie or rest results in a natural suspension of this rhythmic cell, creating another delay factor. Figure 20 includes an example of a rhythmic sequence with a tie between the Habanera rhythm and the characteristic syncopation pattern in the Tango *Succolento* by Nazareth.



Figure 20. Common Brazilian rhythmic sequence in *Succolento* by Nazareth.

4. There are repeated sequences of the syncopated rhythms. Another characteristic of the Brazilian popular music is the repetition of rhythmic sequences (short or long) of the same syncopated rhythms in a melodic line. These repeated sequences are structured by the Habanera rhythm sequence or by the characteristic syncopation sequence. These sequences do not appear in the accompaniment line. In this case, it is difficult to maintain a regular performance of the rhythmic subdivision of the rhythms (characteristic syncopation and/or Habanera rhythm), especially in long sequences. The performance of these syncopated patterns becomes naturally irregular. Figure 21 includes an example of a long sequence of the Habanera rhythm in the Tango *Atlantico* by Nazareth.



Figure 21. Long rhythmic sequence in the Tango *Atlantico* by Nazareth.

5. The combination of the rhythmic sequences results in a rhythmic impact. A strong rhythmic disturbance appears when, the characteristic syncopation occurs after a long sequence of the Habanera rhythm. In this case, the rhythms are similar to African free rhythms as Arom (1985) describes. The African free rhythms begin with an accent in a determined beat and suddenly, the strong accent changes to another pulse (Arom, 1985). Figure 22 depicts this characteristic in the Tango *Atlantico* by Nazareth.

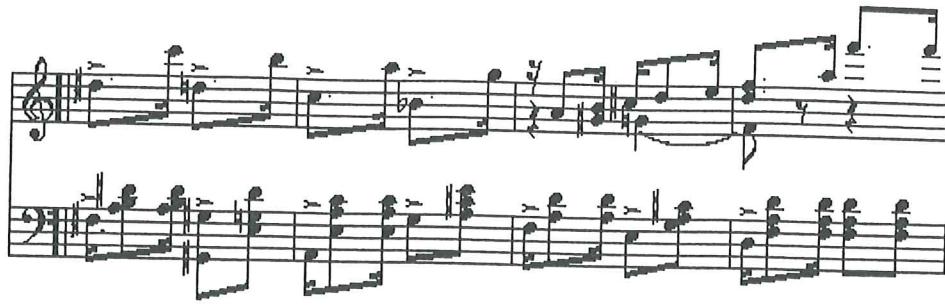


Figure 22. A rhythmic impact in the Tango *Atlantico* by Nazareth.

According to Appleby (1983), to accurately perform the rhythms in Brazilian music, the performer needs knowledge of these factors, and knowledge that these factors or characteristics must be incorporated within his body. The delay factor in the Brazilian popular music “escapes definition in the scores” (Appleby, 1983, p. 80). Performers must be aware of this performance practice as they read the music notation.

The Brazilian musicologist, Glaucia Lucas, analyzed the delay factor through the measurement of the duration of the beats via computer. Lucas conducted this research to identify the internal irregularity of the Afro-American rhythms in oral Brazilian music tradition.

An Analysis of Internal Duration of the Rhythmic Patterns in Brazilian Music Via Graphical Analysis Using Specific Programs for Computer Conducted by Lucas

Os sons do Rosario um Estudo Etnomusicologico do Congado Mineiro: Arturo and Jatoba (The Rosary’s sounds, an Ethonomusicologic Study on the Congado of Minas Gerais, Brazil) was completed in 1999 by Glaucia Lucas and submitted to Sao Paulo

University to fulfill the requirements for the Master of Musicology degree. Lucas developed a collection of transcriptions of selected Congado songs (Afro-Brazilian religious music) together with their rhythmic patterns. She presents and analyzes the characteristics of the rhythmic structures of the Congado and illustrates how the transcription process was conducted.

While transcribing the Congado rhythms, she noticed that the common rhythmic structures of the Congado shift between a binary and ternary division in the internal duration of the beat was a same characteristic found in Brazilian popular rhythms. The performance of these rhythmic patterns were rarely similar, and their internal duration resulted in uneven rhythm durations (not exactly a triplet or the characteristic syncopation).

Following the analysis and selection of the basic Congado rhythmic structures, Lucas studied the duration of the internal divisions. To verify the degree of variability of the internal duration of these rhythmic structures, Lucas used a computer program to graphically represent the sounds. Performers played rhythms and were recorded individually. The rhythms were played on a drum or a *caixa* (a type of drum percussion instrument).

Each pulse of the drum and *caixa* was converted into a signal in the graphic coordinated by the time in milliseconds and the amplitude in Hertz. The numbers were converted into percentile values in relation to the duration of each pulsation. Percentile values in relation to the traditional notation were represented as follows: 100% = a quarter note; 50% = an eighth-note; 25% = a sixteenth-note, and so forth.

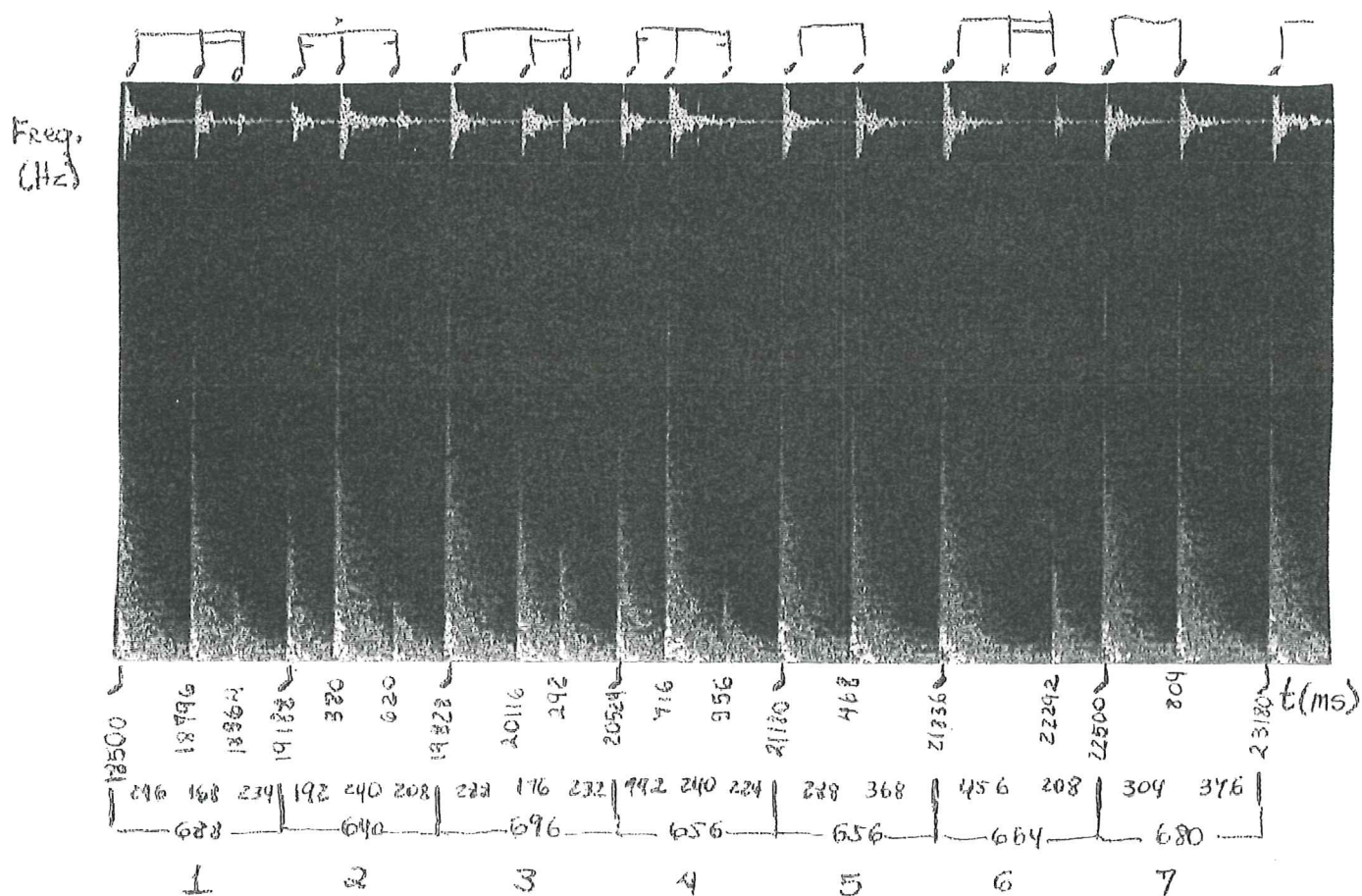
The recorded rhythms were seen and heard through the computer. This allowed Lucas to graphically identify the signals that corresponded to the beat and the signals that corresponded to the internal subdivisions of these beats.

Lucas (1999) states that the results included strong deviations of the internal duration, confirming her primary hypothesis. All of the internal subdivisions in binary pulsation and in ternary pulsation were performed with irregularity. Only the basic ternary rhythmic patterns included a regular subdivision of rhythmic structures.

Figure 23 is an illustration of the final results of the Lucas study. Graphic signals, time and frequency, and the corresponding percentile value of one rhythmic pattern of the Brazilian Congado music are included.

The Haitian *voodoo* Music

The *voodoo*, an African ritual, was virtually the official religion of Haiti from 1747 to 1889 (Stearns, 1970). In the historical, religious and cultural context of the New World of the Colonial Period, the Haitian music was a connection between Africa and the Americas. In the present study, Haitian music is an important point of reference for analysis because that same music was developed in both Cuban and in North American colonies. This connection is also a source of comparative studies to Brazilian music. The alternating of different pulses [triple and duple], which form the different cyclical time lines, is the hallmark of rhythmic organization in African music (Arom, 1985; Kubik, 1979; Nketia, 1974).



Results

1. 43% 24% 34% \Rightarrow
2. 30% 37.5% 32.5% \Rightarrow \rightarrow (Close to)
3. 41.5% 25.3% 32.3% \Rightarrow
4. 29.3% 36.6% 34% \Rightarrow \rightarrow
5. 44% 56% \Rightarrow
6. 69% 31% \Rightarrow \rightarrow
7. 44.7% 55.3% \Rightarrow

Figure 23. Graphical signals, time and frequency, and the corresponding percentile of one rhythmic pattern of the Brazilian Congado music.

That music is regulated by one basic pulsation (pulse or beat) and “through this fundamental unity, the other durations define themselves (Arom, 1984, p. 7). The African instrumental parts perform simultaneously on different schemes of pulse structure (Nketia, 1974). This same basic African rhythmic system, is found in Haitian *voodoo* dances and songs (Parker, 1996).

There are numerous rhythms in Haitian music related to *voodoo*. Based on analysis by Parker (1996), three selected rhythms are described in this study to provide a foundation for the analyses in Chapter IV. According to Parker (1996) there are three levels of density in Haitian rhythmic percussion: slow pulses, medium pulses, and fast pulses.

Parker (1996) states that

the faster pulse is a division of the slower pulse. At any level above the slow pulse, which is usually in binary, a division of two, there are evenly spaced combinations of the binary and ternary systems; thus creating greater density.

(p. 439)

Figure 24 includes an illustration of the three levels of density the Haitian *voodoo* music.

Slow	1		2		1		2								
Med	1	2	1	2	1	2	1	2							
Fast	1	2	1	2	1	2	1	2	3	1	2	3	1	2	3

Figure 24. Three levels of density in Haitian rhythmic *voodoo* music.

The following is a description of the Haitian *voodoo* rhythms. The Yanvalou, the Petwo, and the Juba dance rhythms were selected by this researcher because of their roles in the Haitian *voodoo* ceremony.

The first *voodoo* rhythm analyzed by Parker is the Yanvalou. This rhythm is one of the first rhythms heard in a *voodoo* ceremony. The pulse in this rhythm is in 12/8 meter when written in traditional music notation (Parker, 1996).

During the Yanvalou dance, the *asson* (rattle) begins to play first then other percussion instruments enter. Parker (1996) states that the *asson* drum “maintains the time span with the use of the slow pulse (two beats) with a division of the second beat into two medium pulses” (p. 442). Figure 25 includes an example of the *asson* drum rhythm in the Yanvalou Haitian dance.



Figure 25. The *asson* drum rhythm in Yanvalou Haitian dance.

The *boula* drum is the next instrument to be played in the Yanvalou dance, after the *asson*. Parker states that “it represents an offbeat relationship that occurs at the first pulse level only. The bass drum plays the slow pulse supporting the other parts in two beats” (1996, p. 443). Figure 26 includes an example of this *boula* rhythm in the Yanvalou Haitian dance.



Figure 26. The *boula* drum rhythm in Yanvalou Haitian dance.

According to Parker (1996), the *ogan* [bass drum] has a seven-note pattern structured in 12 pulses in the Yanvalou dance. This drum plays together with the *asson* and *boula* drums, alternating sections of the “ternary and binary division on all levels of the pulse” (Parker, 1996, p. 443). Figure 27 includes the *ogan* rhythm in the Yanvalou Haitian dance.



Figure 27. The *ogan* drum rhythm in Yanvalou Haitian dance.

The *segon* drum also plays a seven-note pattern in the Yanvalou dance, but with a “different pulse division at the medium and fast levels” (Parker, 1996, p. 444). Figure 28 includes the *segon* rhythm in the Yanvalou Haitian dance.



Figure 28. The *Segon* drum rhythm in Yanvalou Haitian dance.

The *maman* drum follows a different rhythm from the other dances included in the Yanvalou. This rhythm is performed with both hand strokes by the performer, and with a

stick. The combination of hand strokes and sticks is a combination of pulses. Parker (1996) describes this rhythm as a

pattern of two time lines long (four beats in total) with the stick articulating the medium pulses from the binary division of the slow pulse. The first, third and fifth hand strokes, and the last stick stroke fall on the fast beats derived from a ternary division of the medium. The remaining hand strokes coincide with the slow and medium pulses. (p. 445-446)

Figure 29 includes an example of this *maman* rhythm in the Yanvalou Haitian dance.

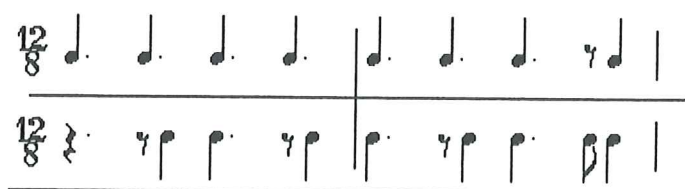


Figure 29. The *maman* drum rhythm in Yanvalou Haitian dance.

Figure 30 includes each Yanvalou rhythm as performed by the different instruments. Those rhythms are performed by five percussion instruments to create this dance.

The second *voodoo* rhythm analyzed by Parker (1996) is the Petwo dance. Parker (1996) explains that the Petwo rhythm is not based on the 12/8 pattern as in the Yanvalou dance. The Petwo rhythm is structured in a time line of 8 pulses. He explains that “it is

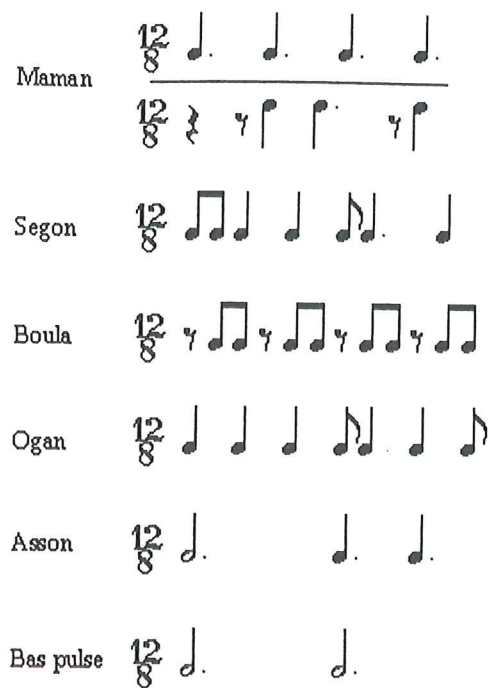


Figure 30. The Yanvalou rhythms.

based on 4/4 for traditional notation and uses a binary or double slow pulse, to create the rhythms even though ternary divisions exist” (Parker, 1996, p. 450-451).

The *ogan*, *boula* and the *segon* drums maintain the 3+3+2 pattern in Petwo dance. While these drums play with this stroke subdivision of the time line of 8 pulses, the *maman* drum follow a different rhythm (Parker, 1996). He states that the

maman drum has a four-bar pattern that begins in the first measure on beat 3 and ends on the beat 2 of measure 5 with a quarter rest. Except for the occasional down beat at the beginning of each measure, it [*maman*] never lines up with the 3+3+2 pattern. (Parker, 1996, p. 453)

Figure 31 includes each Petwo rhythm as performed by the different instruments.

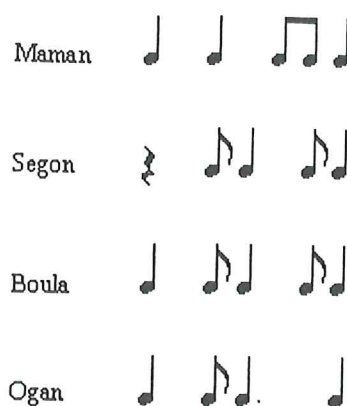


Figure 31. The Petwo rhythms.

The third *voodoo* rhythm analyzed by Parker is the Juba (or Djouba) dance. The Juba dance is played on one drum. Two musicians play the same drum. Parker (1996) states that

one plays the head with his hands while changing the pitch and muffling the drum with his heel, and the other plays on the casing of the drum with sticks . . . The stick rhythm on the casing or shell is in 6/8, but the feeling of the rhythm is in one with an approximate tempo of a dotted half note +88 . . . The Juba drum rhythm corresponds to the 12/8 of the Yanvalou if two measures are grouped together. (Parker, 1996, p. 455-456)

Figure 32 includes the rhythms as performed by the drummers in the Juba dance.



Figure 32. The Juba rhythms.

The Haitian *Voodoo* Ceremony

A Personal Observation

This researcher observed a *voodoo* ceremony in Haiti (Port au Prince) in May 1997. To attend the ceremony, this researcher received permission from the Priest. This permission is offered on special days and in different contexts. The ceremony observed by this researcher was five and one half hours in length with more than 30 Haitian participants. The participants used white cloths, candles, fire, doves, alcoholic drinks, and drums throughout the ceremony. This researcher received authorization by the chief of the house to record the entire ceremony on videotape. The following is a description of rhythmic elements observed in this *voodoo* ceremony.

1. During the dances in strict time, the rhythmic sequence of 2 pulses and 3 pulses is the most basic rhythmic formula in *voodoo* dances and songs. The body movement, together with the steps of the dances (in two pulses and/or in 3 pulses as a waltz), help the listener follow the rhythms.
2. The drummers constantly use both hands to play the alternated binary and ternary pulses. The result is the rhythmic formula of 3+2 or 3+3+2. Normally in *voodoo* dances, the bass drum is played in two slow pulse (binary) and other drum plays a rhythmic subdivision in ternary pulses. The dancers maintain rhythmic organization by clapping (in binary pulse or in ternary pulse).
3. Some dances includes the cyclical structures of 8 pulses, forming the sequence of 3+3+2. When this rhythmic feature disappears, the listener needs to wait for a new rhythmic reference to follow the music.

4. Some dances include several rhythmic changes. Due to the complexity of these rhythms, it was necessary for this researcher to view the videotape to identify some of the specific rhythmic changes. These complex changes occur when the instrumentalists simultaneously perform different schemes of pulse. While the instruments play this irregular pulse, the singers and dancers also use rhythmic variances with their bodies and steps.
5. There is always a drum leader. This drum leader presents a rhythmic design that is immediately followed by the other instruments and dancers as if they had known the time line or rhythmic structure of that dance.

Rhythmic Influence and North American Music

The Great Awakening, a religious movement in the United States that occurred approximately in 1800, produced a revival of the American religious music (Stearns, 1970). One example of this type of American music at this time was the Spiritual.

Stearns (1970) states that

the Spirituals were probably sung during the Great Awakening, but they came to the attention of the public only after the Civil War [1861] With the Great Awakening, the blend of European and West African elements in religious music became evident; with the work song a similar blend in secular music begins.

(p. 23-90)

These African and European influences in the work songs are also described by Lyell (as cited in Stearns, 1970). Lyell states that approximately in 1845 he had heard

African songs on a boat which included "the call-and-response pattern and the use of a hymn as a work song" (as cited in Stearns, 1970, p. 92).

Another form of popular music, Minstrel shows, "reigned in the American entertainment world from about 1845 to 1900" (Stearns, 1970, p. 109). Stearns states that the Minstrel companies "served as a vehicle for the spread of American Negro music" (1970, p. 109). He concludes that

[b]y 1810, blackface impersonations with titles such as "A Negro boy" were being presented by clowns of sorts to the accompaniment of jigs and clogs. . . . A little later, solo blackface acts with bone-clappers, tambourines, and banjos became popular. These instruments, which probably have their prototypes in West Africa, had long been used by Negroes in the South and they became the customary instruments of Minstrelsy. Essentially percussive, they helped to establish the rhythm foundation of Minstrel shows. (p. 110-111)

According to Berlin (1976), the first music to be identified as Ragtime was the "coon song" which was known in the American Minstrel traditions. Waterman (1959) states that "the appearance of William Krell's *Mississippi Rag* in 1897 has given that year acceptance as the beginning date of Ragtime publication" (p. 14). Berlin (1976) concludes that in the next few years "Tom Turpin, Scott Joplin, and others produced rags which incorporated certain characteristics that govern the style throughout its history" (p. 14).

Based on the available information, it seems that few researchers have investigated the exact origin of the Ragtime. Stearns (1970) states that American researchers "know quite a bit about the European music that contributed to Jazz, but our

[American] knowledge of the African music that became an essential part of it is still scanty” (p. 16).

Stearns (1970) suggests that the rhythm of Ragtime is “a steady beat in the left hand and a syncopated beat in the right hand. The right hand plays eight beats in the same interval, but accents every third beat” (Stearns, 1970, p. 142). The following is an example of the characteristic American Ragtime rhythms described by Stearns (Figure 33).

[illegible]

Figure 33. Example of rhythmic sequence of the North American Ragtime.

Borneman (as cited in Stearns, 1970) describes this rhythmic design (Figure 36) as “splitting the bar metrically rather than accentually, and adds that it is unmistakably African in origin and approach. The combination suggests – intermittently and out-of-phase – a component of regular *voodoo* rhythm” (p. 142).

Another hypothesis is suggested by Vega (as cited in Fernandez, 1988). He theorizes that the brief presence of the Spanish people in Louisiana during the Eighteenth Century (1764 to 1799) was the impetus for the appearance of the syncopated rhythm patterns in that region. Vega suggests that syncopation developed from Iberian ternary music, and connects this belief to the Louisiana area (as cited in Fernandez, 1988).

Different hypotheses regarding the exact origin of the Ragtime have been presented (Berlin, 1976; Borneman as cited in Stearns 1970; Stearns, 1970; Vega as cited in Fernandez, 1988). The Berlin survey reinforces the lack of specific information to identify the exact origin of Ragtime and its probable connection with African music. Berlin (1976) states that no rhythmic connection between Ragtime and African dances was found especially in *voodoo* music. American Ragtime was analyzed in chapter IV in comparison with the *voodoo* rhythms, and also with the Cuban and Brazilian popular styles to identify the possible African connections.

African music is analyzed in the next section, especially the music from the West Coast and the Angola/Zaire region. Knowledge and identification of specific African music characteristics was the basis of the analyses in chapter IV. Throughout the literature, these characteristics are analyzed with different methodologies by musicologists, who use different terminology to describe these characteristics. The objective of the following section was to collect and describe existing data as a foundation for the analyses included in Chapter IV.

Introduction to African Music Using the Arom (1985), Nketia (1974) and Kubik (1985) Analyses

Rhythm is the primary focus in the organization of African music. Nketia (1974) states that "African traditions are more uniform in their choice and use of rhythms and rhythmic structures than they are in their selection and use of pitch systems" (p. 125). He asserts that in Africa, "the rhythms may be metrically free and lacking in rhythmical

regularity, or they may be in strict time, imparting a feeling of regularity of beat which can be articulated in regular bodily movement” (Nketia, 1974, p. 125).

According to Arom (1985) it is possible to recognize fundamental African rhythmic characteristics when listening to an African percussion ensemble. He divides the West African rhythmic characteristics into five classifications (Figure 34).

1. A stable and regular movement . . . into a measured music . . . where the durations are strictly proportional;
2. The predominance of repeated and uninterrupted rhythmic formulas where the similar material reappears in regular intervals – a rigid periodicity;
3. The [repeated] formulas are not always perfectly identical. The system allows a rhythm variation;
4. The different instrumental parts performed . . . are ordered simultaneously in diagonal movement. The African music has the principle of the interplay of the individual rhythms; and
5. The music does not have a pattern of the temporal reference composed of the regular alternate accentuated or not accentuated sounds. It does not have the notion of the measure and strong beat that defines it. (Arom, 1985, p. 408)

Figure 34. Five African rhythmic characteristics by Arom (1985).

The following is a discussion of each of the five points presented by Arom (1985). In addition, considerations described by Nketia (1974) are included. Although both

researchers use different terminology to describe the general African music, the understanding of the five characteristics is similar between them.

In the first point, Arom discusses the concepts of the measured music, where “the durations are strictly proportional” (1985, p. 408). Arom explains that in that African music, there is a regular pulsation, which is the common regulator of the rhythmic structures (or time line by Nketia). The pulsation (beat or pulse by Nketia) is the fundamental unity of the time, and through this fundamental unity, the other durations define themselves (these subdivisions of the fundamental unity are referred to as minimal values by Arom, and they are called divisive rhythms by Nketia).

Nketia (1974) divides the pulse of the time line into strict time in two patterns: multiples of two (2, 4, 8, or 16) and multiples of three (3, 6, 12, or 24). Figure 35 and Figure 36 include both patterns.

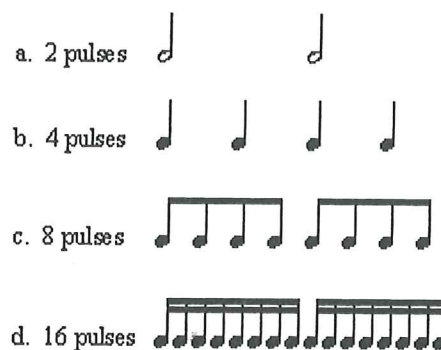


Figure 35. African pulse in strict time: Two and multiples of two by Nketia (1974).

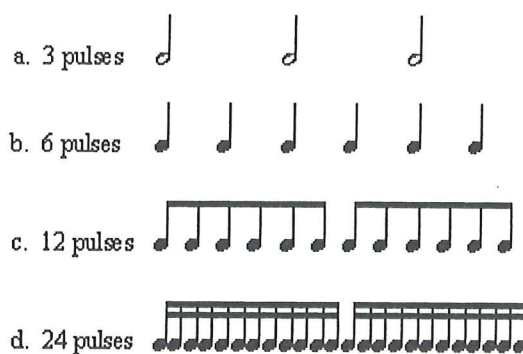


Figure 36. African pulse in strict time: Three and multiples of three by Nketia (1974).

Nketia (1974) states that, although the schemes of pulse structure (Figure 38 and Figure 39) are different, “the time line is the same in both cases” (p. 127). The duple and triple pulses in a parallel position compose a ratio of 2 to 3. Figure 37 includes the duple and triple pulses seen in a parallel position.

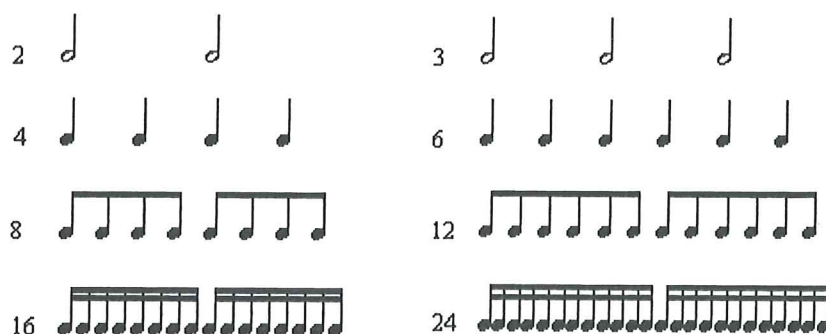


Figure 37. Duple and triple African pulses seen in a parallel position by Nketia (1974).

Nketia (1974) states that the alternating sections of duple and triple pulses (hemiola) in a linear format are also included in African rhythmic structures. According to Arom (1985) and Nketia (1974), this organization is most expressive in percussion music. The alternating sections of duple pulse and triple pulses are shown in Figure 38.

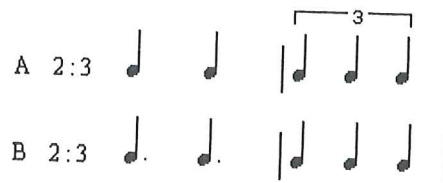


Figure 38. The alternating sections of duple and triple pulses in a linear realization by Nketia (1974).

In the second point, Arom discusses the concept in which the African music includes “the predominance of repeated and uninterrupted rhythmic formulas where the similar material reappears in regular intervals” (1985, p. 408). The West African music is characterized by the cyclical structures with repetition and variations which constitute a fundamental principle of the whole African music (Arom, 1985; Nketia, 1974). Figure 39 includes rhythmic examples of cyclical rhythmic structures by Arom (1985, p. 415).



Figure 39. Cyclical African rhythmic structures by Arom (1985).

In the third point, Arom discusses the concept in which “the [repeated] formulas are not always perfectly identical. The system allows a rhythmic variation” (1985, p. 408). Arom explains that if there is a modification of the accentuation, or a modification of the timbre, or an alternance of the durations, the cyclical sequences present a rhythmic variation. Figure 40 includes a cyclical rhythmic structure and some of its variations.



Figure 40. Cyclical African rhythmic structure and its variations (Arom, 1985).

In the fourth point, Arom discusses the concept in which “the different instrumental parts performed . . . are ordered simultaneously in diagonal movement. The African music has the principle of the interplay of the individual rhythms” (1985, p. 408). According to Nketia (1974) this interplay

arises where rhythms based on different schemes of pulse structure are juxtaposed. The simplest type of cross rhythms is that based on the ratio of two against three, or their multiples – that is, vertical interplay of duple and triple rhythms (as opposed to hemiola, where the interplay is linear) . . . more complex cross rhythms result when divisive and additive rhythms are juxtaposed. (p. 134-135)

Examples of simple and complex rhythms in vertical interplay by Nketia (1974) are included in Figure 41 and Figure 42.

In the fifth point, Arom discusses the idea that “the music does not have a pattern of temporal reference [constant pulsation] composed with regular alternation of accentuated or un-accentuated sounds. It does not have the notion of the measure with

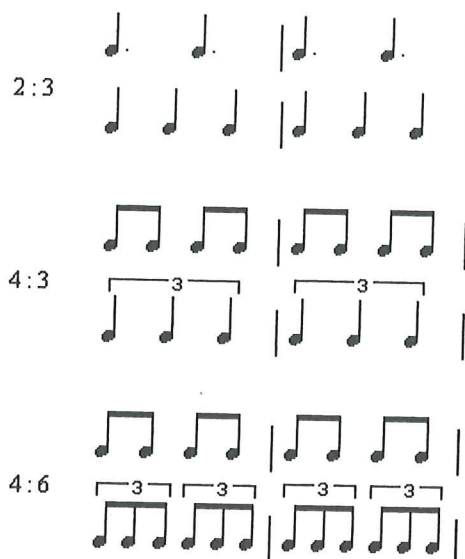


Figure 41. Simple cross rhythms in vertical interplay by Nketia (1974).



Figure 42. Complex cross rhythms in vertical interplay by Nketia (1974).

strong beat to defines it” (1985, p. 408). He explains that the African characteristics in that kind of music – interplay of the accents and of timbres, associated with the absence of a reference to the regular pulse – offers a feeling of uncertainty and ambiguity. Arom (1985) states that this music, for example, began with a binary rhythmic cycle constituting the regular movement of the clock (tick-tock) with the accented pulsation in the “tick.” Suddenly, a change occurs where the accented pulsation is in the “tock”.

The Gestalt approach (an organized whole that is perceived as more than the sum of its parts) described by Arom, is the conductor of this rhythmic organization. Arom (1985) explains that for example, a pulse without accentuation, composed by two equal durations plus one rest of the same duration, can be perceived in three different ways. Figure 43 includes an illustration of this idea.



Figure 43. The Gestalt perception of the African music by Arom (1985).

The West Coast and Angola/Zaire Time Lines by Kubik (1979)

Africa is considered the second largest continent of the world (Parker, 1996). Roberts (as cited in Parker, 1996) states that "Africa has today, over 250 million inhabitants, forming at least 2,000 tribal groups, speaking between 800 and 2,400 tongues, depending on one's definition of what is a language and what is only a dialect" (p. 4).

Kubik (1979) states that, although West African music has changed considerably during the past three centuries, the same time line patterns are maintained in their traditional music. He concludes that "it is certain that they [African time lines] were not 'invented' in some recent historical period. They were present in West Africa in the 16th century and much, much earlier" (Kubik, 1979, p. 18).

According to three researchers (Arom, 1985; Kubik, 1979; Nketia, 1974), the African time line is a cyclical rhythmic ostinato. The simple time-line (or standard pattern by Kubik, 1979) consists of an alternation of duple and triple rhythmic motifs, for example the 8 pulse standard pattern 3+(3+2). The complex time line (duple/triple) consists of twelve, sixteen, or twenty-four pulses.

Kubik (1979) demonstrates that there are two kinds of time lines in West Africa:

1. the twelve-pulse standard patterns, a characteristic from West Africa; and
2. the sixteen-pulse standard patterns, a characteristic from Angola/Zaire.

Kubik (1979) explains that each one of these rhythmic structures includes two versions. He states that the twelve-pulse standard pattern includes the seven-stroke version or the five-stroke version. Figure 44 and Figure 45 include both patterns, with notation used by Kubik. (X) is used to symbolize the mnemonic syllables and (•) is used to symbolize the durations between the syllables.

$$\begin{array}{ccccccc} [2] [2] [3] & + & [2] [3] & & & & \\ X \bullet & X \bullet & X X \bullet & & X \bullet & X X \bullet & 7 + 5 = 12 \end{array}$$

Figure 44. West-African twelve-pulse standard pattern – seven-stroke version by Kubik (1979).

$$\begin{array}{ccccccc} [2] [2] [3] & + & [2] [3] & & & & \\ X \bullet & X \bullet & X \bullet \bullet & & X \bullet & X \bullet \bullet & 7 + 5 = 12 \end{array}$$

Figure 45. West-African twelve-pulse standard pattern – five-stroke version by Kubik (1979).

Kubik (1979) states the following regarding the twelve time line in the seven-stroke version.

[The] seven-stroke version can be found along the West African Coast, among the Igbo, Yoruba, Fo and Akan group peoples as well as others. With the deportation of Yoruba, Fo, and Ewe to Brazil and the transplantation of Yoruba cults, this pattern has become one of the hallmarks of Candomble music [from Bahia, in Northeast of Brazil]. (p. 15)

Several researchers have also stated that this five-stroke pulse pattern is one of the most important and more prominent rhythmic patterns found in West Africa and the Congo/Angola region (Jones, 1959; Mukuna, 1979; Nketia, 1987). The five-stroke version is also found in West Africa, including among the Yoruba and also in the Brazilian Cadomble. Therefore, Kubik demonstrates that the five-stroke version is much more important in Angola/Zaire. He states that

[I]n Angola, both the seven and the five-stroke versions occur. The seven-stroke version is, however, accentuated differently from what can be heard on the West Coast. It is also differently placed against the basic steps of the dancers . . . also in Angola it is usually struck on the *corpus* of a drum (in the eastern half of the country) or it appears as a pattern for hand-clapping, for instance in Ombanda of southwestern Angola. (Kubik, 1979, p. 16)

The second time line included in the Kubik study (1979), is the sixteen-pulse standard pattern. Kubik (1979) demonstrates that this time line includes a nine-stroke version and a seven-stroke version. Figure 46 and Figure 47 include both patterns.

$$\begin{array}{c} [2] [2] [2] [3] + [2] [2] [3] \\ X \bullet X \bullet X \bullet X X \bullet \quad X \bullet X \bullet X X \bullet \end{array} \quad 9 + 7 = 16$$

Figure 46. Angola/Zaire sixteen-pulse standard pattern – nine-stroke version by Kubik (1979).

$$\begin{array}{c} [2] [2] [2] [3] + [2] [2] [3] \\ X \bullet X \bullet X \bullet X \bullet \bullet \quad X \bullet X \bullet X \bullet \bullet \end{array} \quad 9 + 7 = 16$$

Figure 47. Angola/Zaire sixteen-pulse standard pattern – seven-stroke version by Kubik (1979).

Kubik (1979) asserts the following regarding the sixteen-pulse pattern.

It is almost exclusively concentrated in Bantu-speaking Africa, mainly in Angola and adjacent areas of Zaire and Zambia. In West Africa it is unimportant . . . it is absent in Yorubas Candombles [in Bahia, Brazil], as it is absent in Yoruba music of the African homeland . . . it is the pattern that marks the street Samba music of the Carnaval from Rio de Janeiro [Brazil]. (p. 17)

The final conclusion presented by Kubik is included here because it is directly related to the present study. Kubik (1979) concludes that

[t]he presence or absence of one of the African time-line patterns in Afro-American music can, therefore, be considered diagnostic for historical connections with specific African cultures. In the study of Afro-Brazilian (and indeed other Afro-American music) with no historical methods it may be rewarding even to start one's investigation by first checking for their presence in

the musical samples at hand. Where the twelve-pulse standard pattern occurs, especially in the seven-stroke version . . . we have an almost certain clue that we have a West African Coastal tradition before us, Yoruba, Fo, Akan or the like . . . The presence of the sixteen-pulse standard pattern is always an indication of an Angolan or Congo/Zaire connection . . . This is only an outline of the procedure. Supposed stylistic connections need verification in each case, either through the presence of their (accumulation) or evidence obtained from historical records.

(p. 19)

Summary

A Brief Recapitulation

This researcher included a brief recapitulation of the main points described in this chapter, to assist the reader to synthesize the information. This information was used as a foundation for the analyses and conclusions in Chapter IV and Chapter V.

The discovery of the New World was not only a discovery of new lands. It was also the discovery of a new man that constructed a new nation. In the new place, the individual political, social, and religious principles of all involved were unified to adapt to a new context. Consequently, the combination of cultures resulted the development of new cultures. Throughout the 500 years of existence, each new culture of the Americas constructed its own history.

There is a diversity of the cultures existing in the American Continent (Behague, 1979; Kolinski, 1980; Slonimski, 1947; Stevenson, 1980). These distinct cultures were analyzed and documented, including the musical evolution in each country. In the

popular music context, the African culture was an important focus of studies, whereas the African rhythms were one of the main instruments in the development of the popular genres and styles in the Americas.

The early Cuban music history seems to be the most studied when compared to the popular music of Brazil and the United States. Researchers stated how both Spanish and African music were present in the early Cuban colonial context (Carpentier, 1961/1980; Lezcano, 1991; Ortiz, 1991; Parker, 1996). The researchers also demonstrated how both rhythmic languages are similar, and how the Cuban slaves assimilated to the Spanish music. The Son of *Teodora*, a composition written by a Negro in the Sixteenth Century is an example of this early interaction.

Through the Cuban history, the researchers also showed how the Haitian *voodoo* music changed Cuban music after 1791 with the arrival of Haitian slaves in Cuba. The meeting of the African slaves from Haiti and Cuba –Yorubas and Dohomeans – that originated from the same West Coast African region, facilitated the communication between them. The indigenous African traditions brought by Haitian people were revitalized in those colonies and were incorporated in the Cuban context. Later, the African Tresillo and Cinquillo were presented in the early Cuban Contradance. The characteristic syncopation pattern appears in Cuban compositions approximately in 1850. Yet in the Nineteenth Century, the Cuban Contradance influenced the development of the genres of the Clave, Criolla and Guagira in 6/8, and the Danza, Danzon and Habanera in 2/4. These musical genres represent the most concrete influence from both Spanish and African cultures in Cuban music.

It seems that studies regarding the early Cuban popular music and its origins are advanced when compared to Brazil and the United States. Brazil has three centuries of silence regarding its popular music history, and the absence of the syncopated rhythms in the United States until the end of the Nineteenth Century seems to be related to the religious position of the English colonizers.

In Brazil, the majority of music-making until the Eighteenth Century was directly related to church services, influenced by European styles (Appleby, 1983; Behague, 1979; Rezende, 1989). The religious *Autos sacramentales* composed by Portuguese Jesuits is an early example of Brazilian religious music.

The earliest written Brazilian popular music, with African influence, dates from 1792: Two Eighteenth Century Anonymous Collections of Modinhas (Behague, 1968). According to Behague (1968), the Afro Lundu rhythmic dance, characterized by the characteristic syncopation pattern, appears for the first time in these Brazilian compositions.

Throughout the sources analyzed, this researcher did not find records regarding the exact musical life of the slaves in the Brazilian colonies until the Eighteenth Century. The few studies regarding slaves in Brazil offer little information. It is calculated that some 3.5 million African slaves were imported to Brazil. The majority of them – the Bantu people, a preference of the Portuguese colonizers – were from Angola (Congo region). The researchers also demonstrated that the colony of Rio de Janeiro was the Brazilian colony that received most of the slaves from Angola (Kubik 1979; Mukuna, 1979). The Modinha and the Afro-Lundu dance and song emerged in this context. It was also in the Rio de Janeiro colony that the later Polka-Lundu, Brazilian Tango, and

Maxixe styles were developed. Although the Bantu people from the Angola region were the most prominent tribe in Brazil, Kubik (1979) states the Angolan music is the subject of few studies when compared to Yoruba and Dahomean tribes.

A different music history developed in the United States. The researchers demonstrated distinctions between North American colonial music and Latin American colonial music. The first distinction between both Americas was the religious principle. While the Catholic colonizers – Portuguese, Spanish and French – permitted the continuation of the African traditions in the colonies, the Protestant British colonists prohibited all African manifestations, including the use of drums. Consequently, both types of colonies (Protestant and Catholic colonies) followed different musical developments until the Eighteenth Century. The Latin American colonies developed syncopated rhythms, and the North American colonies developed religious music (both with the African influence). The Spirituals are a musical example of that African influence in North American early music.

In the 1890s, syncopated rhythms appear in North American compositions. The emergence of Ragtime, in the Louisiana area, provoked a major change in North American music. Berlin (1976) states that, to some American researchers, Haitian rhythms influenced the development of Ragtime (Borneman, as cited in Stearns, 1970; Krehbiel as cited in Berlin, 1976). For other researchers, syncopated patterns came from American Negroes (Curtis as cited in Berlin, 1976). The African *voodoo* was also known in the Louisiana area since 1791, as music arrived in that region through Haitian people. Those same Haitian dances and songs, especially the *voodoo* music, were brought to Cuba and the United States by Haitian slaves, in the same period of the Colonial history.

Until today, the exact origin of Ragtime is still unknown. The exact origin of the characteristic syncopation in the development of Afro-American music, the main point of analysis in the present study, is also unknown.

To answer to these questions, new hypotheses need to be created. In the next chapter, a connection between the African time lines and the Afro-American styles was developed. The rhythmic connection between African and Haitian time lines is presented through a process developed by this researcher, which unifies both African and European languages. This process is a transformation of African and Haitian time lines into traditional notation. Once transformed, this researcher compared the time lines with musical compositions and representative rhythmic patterns. Finally, an analysis of selected compositions from Cuba, Brazil and North America is included.

Chapter Four

Musical Analysis

The African and Haitian Time Lines in Traditional Notation

This study includes historical data and analysis/interpretation of information. An historical review of the rhythmic patterns as seen in the music of Cuba, Brazil and the United States and influences on the development of syncopation in that music was conducted. Specific musical analyses were undertaken to identify connections between West and Central African and Haitian rhythmic structures. Rhythmic connections between both African/Haitian time lines and the Afro-American rhythms was also developed. This connection was realized through a rhythmic transformation in which the African and Haitian time lines were unified in binary meter. The following is a description of the research method, the connections between the time lines and the Afro-rhythms, and the musical analyses.

Research conducted by other scholars was the foundation for the analysis. The African characteristics presented in Chapter III by Arom (1985), Kubik (1979), and Nketia (1974), including the *voodoo* analysis by Parker (1996), were used by this researcher to connect the African rhythmic structures to the rhythmic sequences of the Cuban Habanera, the Brazilian Tango/Choro and the American Ragtime.

To identify each of the African time lines in connection with the rhythmic sequences of the Afro-American music, this researcher used a personal process of transformation of the African time lines. Nine different African/Haitian time lines: four time lines from West African and Angola/Zaire regions, and five time lines from the Haitian *voodoo* music (three times lines from Yanvalou dance, one time line from Petwo

dance, and one time line from Juba Dance) were transformed by this researcher. These time lines are African time lines of the twelve and sixteen pulses in traditional notation.

The research method was developed in four phases:

1. The first phase was to classify the pulses of each time line in groups, following the accentuation and duration of each figure, for example [2] + [2] + [3] + [2] pulsations.
2. The second phase was to transform the pulsations of the time lines (8, 12 or 16 pulses) into traditional eighth-notes. Figure 48 includes the second phase of the rhythmic transformation realized by this researcher, using an eight time line as an example.

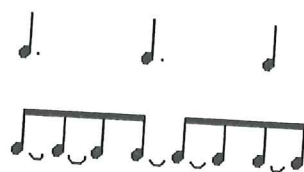


Figure 48. Second phase of the time line rhythmic transformation.

3. The third phase was to transfer the time lines already transformed in eighth-notes, into sixteenth-notes, placed in groups of four. This format approximates the transformation of the African/Haitian time lines into European notation, whereas the African pulse presents "an approximate tempo of a dotted half note = 88" (Parker, 1996, p. 456). This researcher used musical ties to express the exact design, which is corresponding to the accents and durations of the pulsations in each time line. Figure 49 includes the third phase of the rhythmic transformation, using an eight time line as an example.

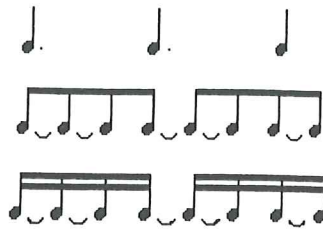


Figure 49. Third phase of the time line rhythmic transformation.

4. The fourth phase was to transform the rhythmic result of the third phase in traditional 2/4 European meter. In this case, the rhythmic transformation of the time lines composed of eight pulses resulted in one whole measure of length. The time lines composed of twelve pulses resulted in one and one half measures of length. The time lines composed of sixteen pulses resulted in two complete measures of length. Figure 50 includes the fourth phase of the rhythmic transformation, using an eight time line as an example.

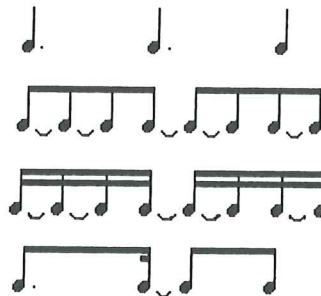


Figure 50. Fourth phase of the time line rhythmic transformation.

This researcher selected time lines to compare to the rhythmic sequences commonly found in Cuban, Brazil, and North American popular music. Figure 51

includes a list of the selected time lines that were transformed and used in the comparative analysis developed in the present study.

1. The *maman* drum rhythm from Yanvalou Haitian dance in twelve pulses;
2. The *ogan* drum rhythm from Yanvalou Haitian dance in twelve pulses;
3. The *segon* drum rhythm from Yanvalou Haitian dance in twelve pulses;
4. The *boula* drum rhythm from Petwo Haitian dance in twelve pulses;
5. The *shell* rhythm from Juba Haitian dance in eight pulses;
6. The seven-stroke version from West Africa in twelve pulses;
7. The five stroke-version from West Africa in twelve pulses;
8. The nine stroke-version from Angola/Zaire in sixteen pulses; and
9. The seven stroke-version from Angola/Zaire in sixteen pulses.

Figure 51. Nine selected time lines transformed into traditional notation.

All time lines mentioned in Figure 51 were transformed into traditional notation using the four phases. Figures 52 and 53 include all of the time lines (listed in Figure 51) and their rhythmic transformations.

The Haitian Time Lines in Traditional Notation

Yanvalou Haitian Rhythms – Twelve-Pulse Time Line

[3][3][3][3] Maman Drum Rhythm



(The *bass*, *asson*, and *boula* drums follow the ternary pulse of the *maman* rhythm)

[2][2][3][2][3] Ogan Drum Rhythm

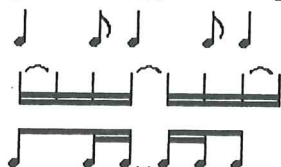


[2][2][3][3][2] Segon Drum Rhythm



Petwo Haitian Rhythms – Eight-Pulse Time Line

[3][3][2] Boula Drum Rhythm



(The *segon* and *ogan* drums follow the ternary pulse of the *boula* rhythm)

Juba Haitian Rhythms – Twelve-Pulse Time Line

[3][3][3][3] Shell Rhythm

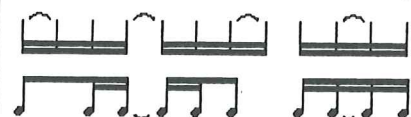


Figure 52. Yanvalou Haitian rhythms – twelve pulse time line into traditional notation.

Petwo Haitian rhythms – eight pulse time line into traditional notation.

Juba Haitian rhythms – twelve pulse time line into traditional notation.

West-African Twelve-Pulse Standard Pattern	
<p>Seven-stroke version</p> <p>[2][2][3][2][3]</p> <p>x . x . x x . x . x x . = </p>	
<p>Five-stroke version</p> <p>[2][2][3][2][3]</p> <p>x . x . x . . x . x . . = </p>	
Angolan/Zaire Sixteen-Pulse Standard Pattern	
<p>Nine-stroke version</p> <p>[2][2][2][3][2][2][3]</p> <p>x . x . x . x x . x . x x . = </p>	
<p>Seven-stroke version</p> <p>[2][2][2][3][2][2][3]</p> <p>x . x . x . x . . x . x . x . . = </p>	

Figure 53. West African twelve-pulse standard pattern into traditional notation.
Angola/Zaire sixteen-pulse standard pattern into traditional notation.

The researcher investigated the above-mentioned time lines, that were transformed into traditional notation. The following is a list of characteristics identified in that investigation.

1. Among the nine time lines, only one is structured in eight pulses, 5 time lines present twelve pulses and 2 time lines are structured in sixteen pulses;
2. Only three types of syncopated rhythms are seen in traditional notation when the time lines are transformed: the original characteristic syncopation pattern, the Tresillo, and the Cinquillo. The other syncopated rhythms are a variation of these three basic rhythms;
3. The original Habanera pattern as commonly seen in Afro-American music (one dotted eighth-note plus one sixteenth-note, plus two eighth-notes) is not seen in the traditional notation after the transformation of the time lines;
4. The original Tresillo (3+3+2) appears in only one time line: twelve time line of the *maman* drum (Haitian Yanvalou);
5. The Habanera rhythmic element composed of one dotted eighth-note plus one sixteenth-note appears only in the West African time line;
6. The sequence of the Habanera rhythmic element and the characteristic syncopation pattern in this order, appears only one time. It is included in the West African five-stroke version;
7. The sequence of two characteristic syncopation patterns (repeated patterns) appears in only one time line. This sequence is included in the Angola/Zaire seven-stroke version;
8. The most syncopated patterns among the time lines are the Angola/Zaire seven-stroke version, and the West Africa five-stroke version, whereas they include both syncopated rhythms in the same time line. The other syncopated rhythmic sequences are a variation

of the above-mentioned sequences. They present less (light) syncopation, whereas the rhythms that appear before and after the characteristic syncopation pattern or Tresillo, do not include syncopation;

9. The Cinquillo is present only in the *boula* drum from the Haitian Petwo dance and in the *shell* rhythm from the Juba Haitian dance;

10. Among the time lines with irregular alternating of the pulses, the *segon* from the Yanvalou Haitian rhythm is unique in that it has two followed sequences of 3 pulses [3+3]; and

11. The Tresillo and the Cinquillo rhythmic elements are characteristics from Haitian rhythms. These patterns are not included in the Angola/Zaire time lines.

Musical Analysis Brazilian, Cuban, and North American Music

This researcher compared the selected nine time lines (Figure 54) with the characteristic rhythmic sequences found in the Brazilian, Cuban, and North American popular music. These rhythmic sequences were identified and classified.

Entire compositions were analyzed when possible. Some of the early examples (Sixteenth Century compositions) and Cuban Contradances were unavailable as entire compositions. In those cases, this researcher analyzed available excerpts. The Contradances *La Matilde* and *La Nina Bonita* by Saumell, not included in the dissertation proposal, were also analyzed to offer a greater foundation for the analysis of the Cuban Contradances. The Anonymous Modinha (MS.1596) were analyzed as they are found in

Manuscript. From the five *Modinhas* analyzed, only the Number 18 seems to be incomplete. The following musical analyses were undertaken in this chapter to identify rhythmic connections (Figure 54).

1. An analysis of the Anonymous *Modinhas do Brazil*: 5, 6, 16, 17, and 18. *Modinhas* number 5 and 6 are the correspondent numbers of the *Modinha* 3-8a and 3-8b mentioned in the dissertation proposal. These new numbers are in the original manuscripts.
2. An analysis of the Brazilian Lundu: *Ja se quebrarao os lacos* and *La no Largo da Se*.
3. An analysis of Henrique Alves de Mesquita Brazilian Tango: *Ali-Baba*.
4. An analysis of Brazilian Tangos by Ernesto Nazareth: *Odeon*, *Bregeiro*, *Atlantico*, *Escorregando*, *Succolento*, *Mesquitinha*, *Turuna*, and *Xango*.
5. An analysis of Contradances by Manuell Saumell: *La Virtuosa*, *La Quejosita*, *La Linda*, *El Somaten*, *Tu Sonrisa*, *El Jigote de Trinita*, *La Celestina*, *L'amitie*, *La Nina Bonita* and *La Matilde*.
6. An analysis of Ignacio Cervantes' compositions: *Dancas Cubanas* 1, 2, 3, 4, 6, 8, 12, and 13.
7. An analysis of American Ragtime by Joplin: *Maple Leaf Rag*, *Elite Syncopation's*, *The Cascades*, *The Favorite*, *Rag-Time Dance*, *A Breeze from Alabama*, *The Entertainer*, and *Eugenia*.

Figure 54. Compositions analyzed in the present study.

The selected compositions were analyzed in sections according to the musical evolution of each country (Brazil, Cuba, and the United States). The same format was used to present the information in each section, when possible, for clarity. Each section includes the following.

1. A brief description of the style, composer and works, and information regarding how this researcher connected the time lines and the rhythmic sequences with the compositions;
2. A figure with a presentation of the time line(s), connected to the most characteristic rhythmic sequences found in each style analyzed (Figure 58). This researcher used a division of the rhythmic sequences, called cycles by this researcher. The cycles correspond with the most frequent rhythmic sequences and/or individual rhythms found in each style; and
3. Tables that include a description of the frequency and quantity of the cycles and the specific measures in which these characteristics appear in each composition.

Brazilian Music
Modinha (MS. 1596), Lundu, and the Tango/Choro

Modinha

A collection of thirty Anonymous Modinhas from Brazil (MS.1596) is part of the reference holdings of the Library of Ajuda in Lisbon, Portugal (Behague, 1968). The Modinha is a type of Portuguese and Brazilian love song similar to the French vocal

Romance of the Eighteenth Century (Behague, 1979 and 1968). The Modinha probably originated in a Brazilian colony (Behague, 1979). Behague states that

they [Modinhas] contain perhaps the earliest specimens known and the texts can be attributed to [Brazilian] Domingos Caldas Barbosa . . . the most remarkable characteristic of that collection . . . is the systematization of the syncopation . . . the 30 songs of the collection are mostly duets, with a prevailingly syllabic setting of the text and, on the whole, systematically syncopated vocal lines. (1979, p. 92-93)

Almost all of these Anonymous Modinhas are written in 2/4 meter with six exceptions: Modinha 9, 10, 14, 15, 26 and 27. Behague (1979) states that “there is no doubt that Modinha has an exceptional historical significance, for it is – together with the Lundu – the very foundation on which a large part of Brazilian popular music was built” (Behague, 1968, p. 68).

The collection of thirty Anonymous Modinhas are unpublished manuscripts, that include music and poetic texts. They are included in an article by Behague (1968), the researcher who located these manuscripts in the Library of Ajuda (Behague, 1968). This researcher obtained a copy of the article by Behague from Sandroni (a Brazilian researcher mentioned in chapter II of this dissertation) for analysis in the present study. (Behague sent this article directly to Sandroni prior to Sandroni sending it to this researcher.)

Five Modinhas were selected from the Anonymous collection by this researcher due to their availability and representative characteristics (Modinha numbers 5, 6, 16, 17,

and 18). Figure 55 includes a description of the number, key and tonality, title and the number of measures of each selected Modinha.

Number	Key & Tonality	Title	Total Number of Measures
5	E minor	<i>Os me deixas que tu das</i>	1-40
6	G major	<i>Eu nasi sem coracao</i>	1-24
16	F major	<i>A saudade que no peito</i>	1-40
17	A major	<i>Ninguem morra de siume</i>	1-36
18	A Major	<i>Eu estando bem juntinho</i>	10-22

Figure 55. Number, key and tonality, title, and the number of measures of the five selected Modinha.

Lundu

Behague states the following regarding the Lundu

Originally an Afro-Brazilian dance, it too became in the late Eighteenth Century a popular genre of dance and song cultivated in the aristocratic salons of Rio and Lisbon. By the 1830s the *lundu* song of the urban areas was very reminiscent of the sentimental character of the salon *modinha*. (1979, p. 93)

Ja se quebrarao os lacos is one of the earliest surviving printed examples of a Portuguese song in which the term Lundu appears (Appleby, 1983). This composition is attributed to the Brazilian Jose de Mesquita. It appears in the *Jornal de Modinhas*, a Portuguese publication from 1792 (Appleby, 1983).

Two Lundus were selected by this researcher for analysis: *Ja se quebrarao os lacos*, by Mesquita and *La no Largo da Se* by Candido Inacio da Silva. Figure 56 includes a description of the title, key and tonality, and tempo marking of the selected Lundu.

Title	Key & Tonality	Tempo Marking
<i>Ja se quebrarao os lacos</i>	F Major	Andante com motto
<i>La no largo da Se</i>	A Major	-

Figure 56. key and tonality, title, tempo marking of the selected Lundu.

Tango/Choro

The word Tango, was commonly used (generally) to describe black music and dance in the New World. Sandroni (1996) states that examples of the word Tango, meaning a dance of the Negroes, are found in great number at the end of the Nineteenth Century in Latin America. He also explains that the Spanish used the name “Cuban Tangos” for the Negro music of Cuba, before the use of the word Habanera [African dance with the same rhythm of the Tango] in Cuba. The Cuban Tangos (or Habanera dance and song) came to South America through the Spanish Zarzuelas Company. The first theater companies arrived in Buenos Aires in 1854 and in Brazil in 1856 (Sandroni, 1996). Those companies included Cuban Tangos in their performances.

Ali-Baba Brazilian Tango, written by composer Henrique Alves de Mesquita in 1872, was the first Tango selected by this researcher for analysis. Baptista (1967) identified this composition and the *Olhos Matadores*, also written by Mesquita as the first compositions in Brazilian Tango style. These compositions are also considered the first in which the word Tango was used in the title of Brazilian songs (Baptista, 1967).

According to Baptista (1967), Ernesto Nazareth composed music that illustrates the synthesis of the evolution of rhythms in Brazilian music. Nazareth composed approximately 230 small works including 91 Tangos, 41 Waltzes, and 29 Polkas, besides a number a Quadrilhas, Schottisches, Marches, Sambas, Fox-Trots and Hymns (Baptista, 1967). His Tangos are considered by Baptista (1967), to be his major contribution to the music of Brazil.

The Tangos by Nazareth were written for solo piano. Each Tango has a title and a subtitle. The subtitles include the classification of the Brazilian Tango, Characteristic Tango, Tango, Polka-Tango, Tango Carnavalesco, Meditative Tango, Argentinean Tango, Tango in Milonga style, Saloon Tango, Tango de Massada, and Brazilian Samba.

In the beginning of the Twentieth Century, the Tango subheading was substituted with the subheading Choro (Baptista, 1967). Baptista (1967) states that the term Tango, as a Brazilian genre was no longer used. He asserts that although Nazareth continued to use the title Tango in almost all of his compositions, they are called Choro until today.

Eight Brazilian Tangos composed by Nazareth were selected by this researcher for analysis: *Odeon*, *Bregeiro*, *Atlantico*, *Escorregando*, *Succolento*, *Mesquitinha*, *Turuna* and *Xango*.



Figure 57 includes a description of the title, subtitle, year, and number of measures of each Brazilian Tango by Nazareth.

Title	Subtitle	Year	Measures
Odeon	Tango Brasileiro	1910	80
Bregeiro	Tango caracteristico	1893	84
Atlantico	Tango de massada	1910	72
Escorregando	Tango Brasileiro	?	72
Succolento	Tango Brasileiro	1919	128
Mesquitinha	Tango caracteristico	1914	132
Turuna	Grande Tango Brasileiro	1899	184
Xango	Tango	1921	72

Figure 57. Title, subtitle, year and number of measures of selected Tangos by Nazareth.

Analysis of Modinha, Lundu, and Brazilian Tango/Choro

Primarily, it is necessary to explain that this researcher used the term Habanera in this study, mainly in the Brazilian music and Cuban music, with two different meanings:

1. Habanera rhythmic element, to define the rhythm composed of one dotted eighth-note plus one sixteenth-note (); and
2. Habanera rhythmic pattern, to define the (traditional) pattern composed by one dotted eighth-note and one sixteenth-note, plus two eighth-notes (.

To analyze the compositions, this researcher primarily classified the most common rhythmic sequences of the Brazilian popular compositions – Modinha (MS. 1596), Lundu and Brazilian Tango. After this classification, this researcher compared the compositions and identified identical syncopated rhythmic sequences in the Modinha (MS. 1596), Lundu, and Brazilian Tango/Choro.

The similar Brazilian rhythmic characteristics seen in the Modinha, Lundu, and the Brazilian Tango/Choro were divided as follows.

1. The characteristic syncopation pattern always appears in the first beat of the measure;
2. There are repeated rhythmic sequences of the characteristic syncopation pattern in the melodic line;
3. There are repeated rhythmic sequences of the Habanera rhythmic element in the melodic line;
4. There are rhythmic sequences with the mixture of both patterns (the Habanera rhythmic element plus the characteristic syncopation patterns in this order) in the melodic line;
5. The rhythmic sequences of the characteristic syncopation and Habanera rhythmic element include repetitions from two to four times, as a rhythmic variation;
6. It is common feature to include the presence of a tie between 2 characteristic syncopations;
7. The characteristic syncopation appears in the bass line; and
8. The Habanera rhythmic pattern (one dotted eighth-note and one sixteenth-note, plus two eighth-notes) is included in the three music styles – Modinha, Lundu, and Brazilian Tango/Choro.

The researcher identified that all of the above-mentioned characteristics are included in the three styles. The researcher compared these Brazilian rhythmic characteristics and the African/Haitian time lines and identified that these syncopated rhythmic sequences are included in two African time lines, when transformed into traditional notation. These two African rhythmic structures are the seven-stroke version from the Angola/Zaire sixteen-pulse pattern, and the five-stroke version from the West African twelve-pulse pattern.

The following is a description of how this researcher transferred these characteristics to Figure format with the time lines. This information will assist the reader to understand each Figure, which includes the time line(s), and the common rhythmic sequences found in the compositions. Figure 58 includes the following information:

1. Each time line is presented twice in the Figure. This format was necessary, whereas the rhythmic sequences always end in a binary pulse. As the African time lines are cyclical, the end of each rhythmic sequence corresponded to the beginning of the next time line. Those sequences finish in the first binary pulse, or in the second binary pulse of the second time line.
2. The cyclical Angola/Zaire time line (left side), and the West African time line (right side), are included in the Figure already transformed in traditional notation.
3. Below the Angolan time line (left side), and below the West African time line (right side), the common rhythmic sequences found in the Anonymous Modinhas are classified. This researcher classified the sequences according to each time line. Ten

different rhythmic sequences are related to the Angola/Zaire time line, and seven rhythmic sequences are related to West African time line.

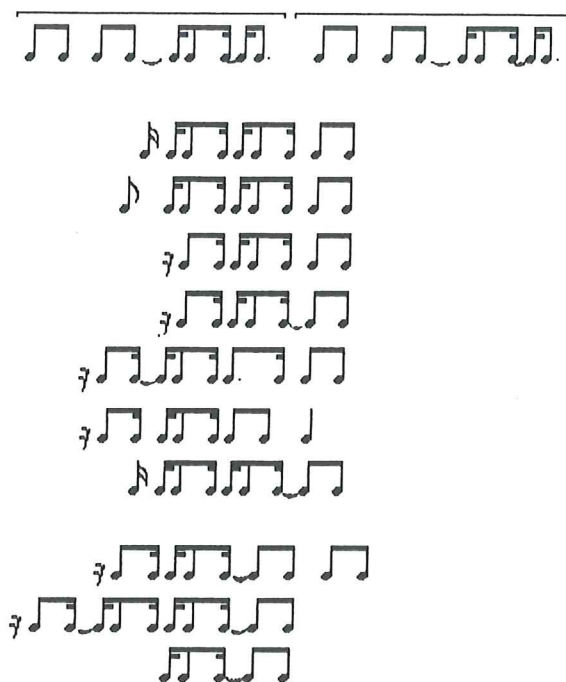
4. Below the Modinha rhythmic sequences, is a classification of the most common rhythmic sequences found in the Lundu. The relation of the rhythmic sequence in the Lundu and the time lines, correspond with the Modinha (the Angola/Zaire time line on the left side, and the West African time line on the right side).
5. The cyclical Angola/Zaire time line is described again, after the Lundu sequences, to help the understanding of Figure 58 (the rhythmic sequences in compositions by Ernesto Nazareth). Below the Angola/Zaire time line, five rhythmic sequences found in the Tangos by Nazareth are classified.
6. The cyclical West African time line is described again. Below the West African time line, seven rhythmic sequences found in the Tangos by Nazareth are classified.

The following is a presentation of the Brazilian rhythmic evolution from the Anonymous Modinhas until Nazareth. Figure 58 includes the Brazilian rhythmic analysis composed by the African time lines, and the most characteristic rhythmic sequences found in the compositions analyzed (Anonymous Modinha, Lundu and the Tango/Choro by Nazareth).

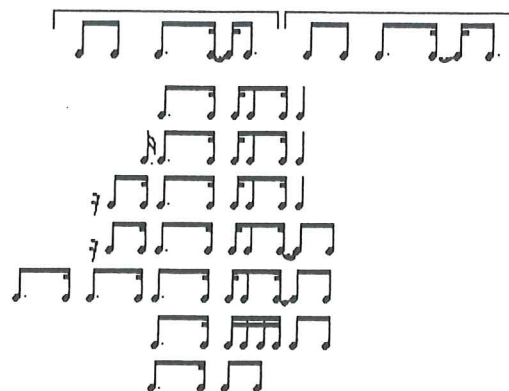
**The Angola/Zaire and West African Time lines Connection's in Brazilian Music
Modinha (Ms1596), Lundu, and Nazareth's Tango**

Rhythmic Sequences in Anonymous Modinha

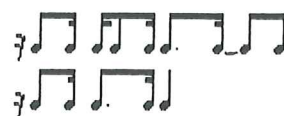
Angolan Seven-Stroke Version Time Line



West African Five-Stroke Version Time Line



Lundu



Ernesto Nazareth rhythmic sequences

Angola/Zaire sixteen pulse seven stroke version



West African Five-Stroke Version Time Line

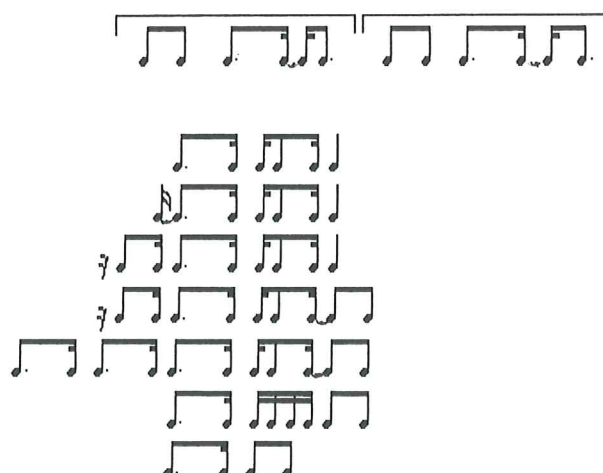



Figure 58. The Angola/Zaire and West African time lines in connection with Brazilian music: Modinha (MS. 1596), Lundu, and Tangos by Nazareth.


The above-mentioned characteristics were classified in the Brazilian compositions. This rhythmic classification was realized regarding each type of rhythmic sequence, its relation with the time lines, and its location in the compositions (bass line or


melodic line). To analyze these rhythmic sequences, the researcher divided them into parts regarding their function in the compositions. Each part was called a Cycle by this researcher. The following is a presentation of the Cycles (A, A1, A2, B and C). The cycles describe what rhythmic patterns are included in each of the time lines.


Cycle A : Refers to the measures in which the West African time line rhythms appear in the compositions (Habanera rhythmic element plus characteristic syncopation

();




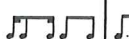

Cycle A1: Refers to the measures in which the repeated sequences of the Habanera rhythmic element appear in the compositions ();

Cycle A2: Refers to the measures in which the Angolan time line rhythms appear in the compositions (two or more characteristic syncopation patterns plus binary pulse ( + binary pulse);

Cycle B: Refers to the measures in which the characteristic syncopation pattern plus two eighth-notes appear in the bass line (); and

Cycle C: Refers to the measures in which the Habanera rhythmic pattern appears in the bass line (.

The musical analyses of the compositions (five Anonymous Modinhas, two Lundus, the Tango by Mesquita, and eight Brazilian Tangos by Nazareth) include a description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear in each composition (Table 1).

Modinha	Cycle A 	Cycle A1 	Cycle A2 	Cycle B 	Cycle C 
No. 5 40 measures			2-3-4, 4-5-6, 6-7-8, 16-17, 18, 18-19-20, 20-21-22, 24-25-26, 26-27-28, 29-30, 30-31-32, 32-33-34, 34-35-36		
No. 6 24 measures			3-4-5, 5-6-7, 12-13, 13-14-15, 15-16-17, 17-18-19, 19-20-21, 21-22		
No. 16 40 measures	19-20		4-5-6, 6-7-8, 8-9, 9-10, 10-11-12, 14-15-16, 16-17-18, 20-21-22, 24-25-26, 26-27-28, 28-29-30, 30-31-32, 33-34-35-36, 36-37, 38-39, 40, 40-41, 42-43	40	
No. 17 36 measures	33-34		3-4, 5-6, 7-8, 9-10, 10-11-12, 13-14, 14-15-16, 16-17-18, 18-19-20, 20-21-22, 22-23-, 23-24, 34-35-36,	1, 2, 27, 28, 29, 30	
No. 18 12 measures		19-20-21	10-11-12, 15-16-17	17, 18, 21	
Total Measures 152	2 seq. = 4 m.	1 seq. = 3 m.	38 seq. = 80 m.	10 seq. = 10 m.	

(seq. = sequences/ m. = measures)

Cycle B: characteristic syncopation appears twice in the same measure or followed by four sixteenth notes.

Table 1. Frequency and quantity of rhythmic cycles in Brazilian Modinhas.





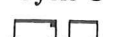
Ja se quebrarao os lacos is in AB form and consists of forty-seven measures.

The form, tonality, and meter of *Ja se quebrarao os lacos* are illustrated in Table 2.

Form	A Measures: 1-20	B Measures: 21-47
Tonality	F Major	F Major
Meter	2/4	2/4

Table 2. Form of the *Ja se quebrarao os lacos* by Mesquita.

A description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear is provided in Table 3.

Section	Cycle A 	Cycle A1 	Cycle A2 	Cycle B 	Cycle C 
Introduction				1, 2, 3, 4	
A				5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 17, 18, 19, 20	
B				21, 22, 23, 24, 29, 30, 31, 32, 37, 38, 39, 40,	
Coda				44, 45, 46, 47	
Total measures 47				34 seq. = 34 m.	

(seq. = sequences/ m. = measures)

All characteristic syncopations are augmented, occupying one whole measure




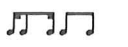

Table 3. Frequency and quantity of rhythmic cycles in *Ja se quebrarao os lacos*.

La no Largo da Se is in AB form and consists of forty-seven measures. The form, tonality, and meter of *La no Largo da Se* are illustrated in Table 4.

Form	A Measures: 1-25	B Measures: 26-33
Tonality	C Major	C Major
Meter	2/4	2/4

Table 4. Form of de *La no Largo da Se*.

A description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear is provided in Table 5.

Section	A 	A1 	A2 	B 	C 
A	1-2, 3-4		6-7-8-9, 14-15, 15-16-17, 17-18-19-20-21, 21-22-23-24-25		
B			26-27, 28-29, 31-32-33		
Total measures 33	2 seq. = 4 m.		8 seq. = 23 m.		

(seq. = sequences/ m. = measures)





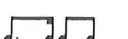
Table 5. Frequency and quantity of rhythmic cycles in *La no Largo da Se*.

The form of *Ali-Baba* is ABC and consists of fifty-six measures. The form, tonality, and meter of *Ali-Baba* are illustrated in Table 6.

Form	Introduction Measures: 1-3	A Measures: 4-15	Transition Measures: 16-22	B Measures: 23-44
Tonality	A minor	A minor	A minor	A Major
Meter	2/4	2/4	2/4	2/4

Table 6. Form of *Ali-Baba* by Mesquita.

Table 7 includes a description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear in *Ali-Baba*.

Section	A 	A1 	A2 	B 	C 
Introduction 3 measures			1, 2		1, 2, 3
A 12 measures		15-16 (2o ending)	8, 9, 10, (in both lines)		4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15
Transition 7 Measures		17-18, 19- 20- 21			
B 16 measures					23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38
Coda 6 measures					
44 measures		3 seq. = 7 m.	5 seq. = 5 m.		30 seq. = 30 m.

(seq. = sequences/ m. = measures)

Table 7. Frequency and quantity of the rhythmic cycles in *Ali-Baba*.




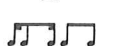

Odeon (Tango) by Ernesto Nazareth was written in 1910. It is in ABACA form.

This form, tonality, and meter of *Odeon* are illustrated in Table 8.

Form	A Measures: 1-16	B Measures: 17- 32	A Measures: 1-16	C Measures: 33-48	A Measures: 1-16
Tonality	c# minor	c# minor	E Major	E Major	E Major
Meter	2/4	2/4	2/4	2/4	2/4

Table 8. Form of *Odeon* by Nazareth.

A description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear is provided in Table 9.

Section	A 	A1 	A2 	B 	C 
A 16 measures		1-2-3-4, 5-6-7, 9-10-11-12-13- 14-15-16			
B 16 measures			(16)-17-18, 18-19-20, 20-21-22-23-24, 24-25-26-27-28, 28-29-30-31-32	17, 18, 19, 20, 21, 24, 25, 26, 27, 28, 29	22, 23, 30, 31
A 16 measures		1-2-3-4, 5-6-7, 9-10-11-12-13- 14-15-16			
C Trio 16 measures					33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 56, 47, 48
A 16 measures		1-2-3-4, 5-6-7, 9-10-11-12-13- 14-15-16			
Total 80 measures		9 seq. = 45 m.	5 seq. = 16 m.	11 seq. = 11 m.	20 seq. = 20 m.

(seq. = sequences/ m. = measures)






Table 9. Frequency and quantity of rhythmic cycles in *Odeon*.

Bregeiro (Tango) by Ernesto Nazareth was written in 1893. It is in AB form with an Introduction. This form, tonality, and meter of *Bregeiro* are illustrated in Table 10.

Form	A Measures:	B Measures:
Tonality	A Major	C Major
Meter	2/4	2/4

Table 10. Form of *Bregeiro* by Nazareth.

A description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear is provided in Table 11.

Section	A 	A1 	A2 	B 	C 
Introduction 4 measures					
A 32 measures	5-6, 7-8, 9-10, 11-12, 19, 21-22, 23-24, 25-26, 27-28		13-14, 15-16, 17-18, 20, 29-30, 31-32, 33-34-35	14*, 15*, 16*, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35	
B 16 measures			37, 38-39-40, 41-42-43-44- 45-46-47-48, 49-50-51-52	37, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50, 51	
A 32 measures	5-6, 7-8, 9-10, 11-12, 19, 21-22, 23-24, 25-26, 27-28		13-14, 15-16, 17-18, 20, 29-30, 31-32, 33-34-35		
Total Measures 84	18 seq. = 34 m.		18 seq. = 44 m.	31 seq. = 31 m.	

(seq. = sequences/ m. = measures)

* Measure in which the characteristic syncopation appears twice




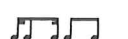

Table 11. Frequency and quantity of the rhythmic cycles in *Bregeiro*.

Atlantico (Tango de Massada) by Ernesto Nazareth was written in 1921. It is in ABCA form with a Trio. The form, tonality, and meter of *Atlantico* are illustrated in Table 12.

Form	A Measures: 1-16	B Measures: 17-32	C Measures: 33-40	Trio Measures: 41-56	A Measures: 1-16
Tonality	C Major	C Major	F Major	F Major	C Major
Meter	2/4	2/4	2/4	2/4	2/4

Table 12. Form of *Atlantico* by Nazareth.

A description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear is provided in Table 13.

Section	A 	A1 	A2 	B 	C 
A 16 measures		1-2, 4-5-6, 8-9-10, 16	3-4, 7, 11-12-13-14 15	13*	
B 16 measures	23	17-18, 20-21-22, 24-25-26, 28, 32	19, 27	17, 18, 19, 10, 21, 22, 23, 25, 26, 27, 28, 29, 30, 31	
C 8 measures		33-34-35-36-37- 38-39, 40		33, 34, 35, 36, 37, 38, 39	
Trio 16 measures					41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54
A 16 measures		1-2, 4-5-6, 8-9- 10, 16	3-4, 7, 11-12-13-14-15	13	
Total 72 measures	1 seq. = 1 m.	10 seq. = 27 m.	8 seq. = 18 m.	23 seq. = 23 m.	14 seq. = 14 m.

(seq. – sequences/ m. = measures)

* Measure in which the characteristic syncopation appears twice.

Table 13. Frequency and quantity of the rhythmic cycles in *Atlantico*.




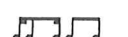

Escorregando (Brazilian Tango) by Ernesto Nazareth is in ABCDA form. This researcher did not find the date of this composition in the sources used in the dissertation.

The form, tonality, and meter of *Escorregando* are illustrated in Table 14.

A description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear is provided in Table 15.

Form	A Measures: 1-16	B Measures: 17-32	C Measures: 33-40	D Measures: 41-56	A Measures: 1-16
Tonality	C Major	C Major	C Major	F Major	F Major
Meter	2/4	2/4	2/4	2/4	2/4

Table 14. Form of *Escorregando* by Nazareth.

Section	A 	A1 	A2 	B 	C 
A 16 measures				1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 15	17
B 16 measures					17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31
C 8 measures				33, 34, 35, 36, 37, 38, 39	
D 16 measures	41, 42, 43, 45, 46, 47, 48, 49, 50, 51, 53, 54		44, 52, 55	41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55	56
A 16 measures				1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 15	
Total Measures 72	12 seq. = 12 m		3 seq. = 3 m.	48 seq. = 48 m.	15 seq. = 15 m.

(seq. = sequences/ m. = measures)





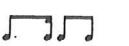
Table 15. Frequency and quantity of the rhythmic cycles in *Escorregando*.

Succolento (Brazilian Samba) by Ernesto Nazareth was written in 1919. It is in ABA Trio A. The form, tonality, and meter of *Succolento* are illustrated in Table 16.

Form	A Measures: 1-32	B Measures: 33-48	A Measures: 1-32	Trio Measures: 49-64	A Measures: 1-32
Tonality	Ab Major	F Minor	Ab Major	Db Major	Ab Major
Meter	2/4	2/4	2/4	2/4	2/4

Table 16. Form of *Succolento* by Nazareth.

A description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear is provided in Table 17.

Section	A 	A1 	A2 	B 	C 
A 32 measures	2*, 4*, 5, 6*, 9*, 12, 13-14 18*, 20*, 21*, 22*, 29-30	15, 31	1, 3, 9, 17, 19, 25	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	
B 16 measures	45, 46*, 48*				33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 47, 48
A 32 measures	2*, 4*, 5, 6*, 9*, 12, 13-14 18*, 20*, 21*, 22*, 29-30	15, 31	1, 3, 9, 17, 19, 25	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	
Trio 16 measures	49*, 50*, 52*, 53*, 54*, 57*, 58*, 60*, 61*, 62*, 63*		51, 59,	49, 50, 51, 52, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63	64
A 32 measures	2*, 4*, 5, 6*, 9*, 12, 13-14 18*, 20*, 21*, 22*, 29-30	15, 31	1, 3, 9, 17, 19, 25	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	
Total Measures 128	53 seq. = 53 m.	6 seq. = 6 m.	20 seq. = 20 m.	104 seq. = 104 m.	15 seq. = 15 m.

(seq. = sequences/ m. = measures)

* A modification: The characteristic syncopation is changed to 1 rest and 3 sixteenth-notes.

Table 17. Frequency and quantity of the rhythmic cycles in *Succolento*.




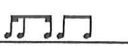
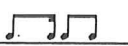
Mesquitinha (Characteristic Tango) by Ernesto Nazareth was written in 1914. It is in ABAABA form with a Trio. The form, tonality, and meter of *Mesquitinha* are illustrated in Table 18.

Form	A Measures: 1-16	B Measures: 17-32	A Measures: 33-48	Trio Measures: 49-84	A Measures: 1-16
Tonality	G Major	e minor	G Major	C Major	G Major
Meter	2/4	2/4	2/4	2/4	2/4
B Measure s:17-32	A Measures: 33-48				
e minor	G Major				
2/4	2/4				

Table 18. Form of *Mesquitinha* by Nazareth.

A description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear is provided in Table 19.

Turuna (Big Characteristic Tango) by Ernesto Nazareth was written in 1899. It is in ABACABA with a transition. The form, tonality, and meter of *Turuna* are illustrated in Table 20.

Section	A 	A1 	A2 	B 	C 
A 16 measures	2, 4*, 5*, 6*, 8 (bass line) 10, 16 (both line)		3, 8, 11		3, 4, 5, 6, 7, 11, 12, 13, 14, 15
B 16 measures	32 (both lines)				21, 23
A 16 measures	34, 36*, 37*, 38*, 40 (bass line), 42		35, 40, 43		35, 36, 37, 38, 39, 43, 44, 45, 46

Trio 32 measures	84 (both lines)		80-81-82, 82-83	49, 50, 51, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 69, 70, 71, 73, 74, 75, 76, 78, 79, 81-82, 83 (both lines)	52, 68
A 16 measures	2, 4*, 5*, 6*, 8 (bass line), 10, 16 (both lines)		3, 8, 11		3, 4, 5, 6, 7, 11, 12, 13, 14, 15
B 16 measures	32 (both lines)				21, 23
A 16 measures	34, 36*, 37*, 38*, 40 (bass), 42		35, 40, 43		3, 4, 5, 6, 7, 11, 12, 13, 14, 15
Total Measures 128	29 seq. = 29 m.		17 seq. = 17 m.	29 seq. = 29 m.	45 seq. = 45 m.

(seq. = sequences/ m. = measures)




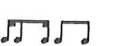
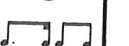
*A modification: characteristic syncopation appears with one eighth-note instead of one sixteenth-note.

Table 19. Frequency and quantity of the rhythmic cycles in *Mesquitinha*

Form	A Measures: 1-32	B Measures: 33-48	A Measures: 49-80	C Measures: 81-96
Tonality	Db Major	Db Major	Db Major	F# Major
Meter	2/4	2/4	2/4	2/4
Coda	A	B	A	
Measures: 97-104	Measures: 1-32	Measures: 33-48	Measures: 49-80	
Bb minor	Db Major	Db Major	Db Major	
	2/4	2/4	2/4	

Table 20. Form of *Turuna* by Nazareth.

A description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear is provided in Figure 21.

Section	A 	A1 	A2 	B 	C 
A 32 measures	20-21(bass), 30	3-4 (bass), 7 (bass), 19-20 (bass), 23 (bass)	1-2 (bass), 2-3 (mel), 5-6 (bass), 6-7 (mel), 9, 11, 13, 15, 17-18 (bass), 18-19(mel), 21-22 (bass), 22-23 (mel), 25, 27, 29, 31	9, 10, 11, 12, 13, 14, 15, 16, 25, 26, 27, 28, 29, 30, 31, 32	8, 24
B 16 measures	42*, 44*, 46		33, 35, 37, 39, 41, 43, 45, 47	33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48	
A 32 measures	68-69 (bass) 78	51-52 (bass), 55 (bass), 67-68 (bass), 71 (bass)	49-50 (bass), 50-51(mel), 53-54(bass), 54-55(mel), 57, 59, 61, 63, 65-66 (bass), 66-67 (mel), 69-70 (bass), 70-71(mel), 73, 75, 77, 79	57, 58, 59, 60, 61, 62, 63, 64, 73, 74, 75, 76, 77, 78, 79	56, 7
C 16 measures	81, 82*, 84, 85, 86*, 88, 89, 90*, 92*, 94*, 96			89, 90, 91, 92, 93, , 94, 96	
Transition 8 measures	97*, 98, 99, 100*, 101*, 102, 103			97, 98, 99, 100, 101, 102, 103	104
A 32 measures	20-21 (bass) 30	3-4 (bass), 7 (bass), 19-20 (bass), 23 (bass)	1-2 (bass), 2-3 (mel), 5-6 (bass), 6-7 (mel), 9, 11, 13, 15, 17-18 (bass), 18-19 (mel), 21-22 (bass), 22-23(mel), 25, 27, 2 9, 31	9, 10, 11, 12, 13, 14, 15, 16, 25, 26, 27, 28, 29, 30, 31, 32	8, 24

B 16 measures	42*, 44*, 46		33, 35, 37, 39, 41, 43, 45, 47	33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48	
A 32 measures	68-69 (bass), 78	51-52 (bass), 55 (bass), 67-68 (bass), 71 (bass)	49-50 (bass), 50-51(mel), 53-54 (bass), 54-55 (mel), 57, 59, 61, 63, 65-66 (bass), 66-67 (mel), 69-70 (bass), 70-71(mel), 73, 75, 77, 79	57, 58, 59, 60, 61, 62, 63, 64, 73, 74, 75, 76, 77, 78, 79	56, 72
Total Measures 184	32 seq. = 36 m.	16 seq. = 24 m.	80 seq. = 92 m.	108 seq. = 108 m.	9 seq. = 9m.

(seq. = sequences/ m. = measures)

*A modification: In this case, the rest is presented but the characteristic syncopation is changed to an eighth-note or four sixteenth-notes.

Table 21. Frequency and quantity of the rhythmic cycles in *Turuna*.




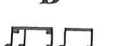
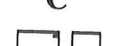
Xango (Tango) by Ernesto Nazareth was written in 1921. It is in ABACA form.

The form, tonality, and meter of *Xango* are illustrated in Table 22.

Form	A Measures: 1-16	B Measures: 17-24	A Measures: 1-16	C Measures: 25-40	A Measures: 1-16
Tonality	Ab Major	F Minor	Ab Major	Db Major	Ab Major
Meter	2/4	2/4	2/4	2/4	2/4

Table 22. Form of *Xango* by Nazareth.

A description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear is provided in Table 23.

Section	A 	A1 	A2 	B 	C 
A 16 measures			1-2, 3-4, 5-6, 7-8 (both lines), 9-10, 11-12, 13-14, 15	7, 13, 14, 15	1, 2, 3, 4, 5, 6, 9, 10, 11, 12
B 8 measures		18, 19, 22	17, 21		23
A 16 measures			1-2, 3-4, 5-6, 7-8 (both lines), 9-10, 11-12, 13-14, 15	7, 13, 14, 15	1, 2, 3, 4, 5, 6, 9, 10, 11, 12
C 16 measures					25*, 26*, 27*, 29*, 30*, 31*, 33, 34, 35, 36, 37, 38, 39
A 16 measures			1-2, 3-4, 5-6, 7-8 (both lines), 9-10, 11-12, 13-14, 15	7, 13, 14, 15	1, 2, 3, 4, 5, 6, 9, 10, 11, 12
Total Measures 72		3 seq. = 3 m.	26 seq. = 47 m.	12 seq. = 12 m.	44 seq. = 44 m.

(seq. = sequences/ m. = measures)

* The Habanera rhythm presents a tie as the Tresillo.

Table 23. Frequency and quantity of the rhythmic cycles in Xango.

The following, is a summary of the analyses of the Brazilian popular music. Tables 24, 25, 26, and 27 include each group of compositions (Modinha, Lundu, and Brazilian Tango/Choro), and the general frequency and quantity of the measures in which the rhythmic cycles appear in each style. Table 25 includes a comparison among the styles.

Anonymous Modinhas	A	A1	A2	B	C
Total of Measures: 151	4	3	80	10	
100 %	2.6 %	1.9 %	53%	7%	-

Table 24. Summary of the Modinhas.

Brazilian Lundu	A	A1	A2	B	C
<i>Ja se quebrarao os lacos</i> 47 measures				34	
<i>La no lago da Se</i> 33 measures	4		23		
Total of measures: 80	4	-	23	34	-
100 %	0.05%	-	29%	34%	-

Table 25. Summary of the Lundus.

Brazilian Tango <i>Ali Baba</i>	A	A1	A2	B	C
Total of measures: 44	-	7	5	-	30
100 %	-	16%	14%	-	68%

Table 26. Summary of the Tango *Ali-Baba*.

Brazilian Tango Ernesto Nazareth	A	A1	A2	B	C
<i>Odeon/1910</i> 80 measures	-	45	16	11	20
<i>Bregeiro/1893</i> 84 measures	34	-	44	31	-
<i>Atlântico/1910</i> 72 measures	1	27	18	23	14
<i>Escorregando</i> 72 measures	12	-	3	48	15
<i>Succolento/1919</i> 128 measures	59	6	20	104	15
<i>Mesquitinha/ 1914</i> 132 measures	29	-	17	29	45
<i>Turuna/1899</i> 184 measures	36	24	92	108	9
<i>Xango/1910</i> 72 measures	-	3	47	12	44
Total of measures: 824	171	105	257	366	162
100 %	20%	13%	31%	44%	20%

Rhythmic sequences in compositions by Nazareth	Melodic line = 64%	Bass line = 64%	Other measures = 36%
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Table 27. Summary of the Tangos by Ernesto Nazareth.

Style/composer	A	A1	A2	B	C
Modinha	0.026%	0.019%	53%	0.07%	-
Lundu	0.05%	-	29%	43%	-
Tango by Mesquita	-	16%	14%	-	68%
Tangos by Nazareth	20%	13%	31%	44%	20%

Table 28. Summary of the Brazilian compositions – Modinha, Lundu, and Brazilian Tango/Choro.

Cuban Music Analysis of Compositions by Manuel Saumell and Ignacio Cervantes

Contradances by Saumell

Manuel Saumell (1817-1870) is known in Cuba as “the father of the contradance” (Fernandez, 1989). His works includes the synthesis of Cuban folklore music, and the metric and rhythmic base for the development of the later Cuban genres (Fernandez, 1989). The Contradances by Saumell are written in AB form, with repetition. Fernandez (1989) states that sixty percent of the Saumell Contradances are in 2/4, forty percent are in 6/8, and only one Contradance was written in 3/4 meter.

Ten Contradances were selected for this research: *La Virtuosa*, *La Quejosita*, *La Linda*, *El Somaten*, *Tu Sonrisa*, *El Jigote de Trinita*, *La Celestina*, *L'amitie*, *La Nina Bonita* and *La Matilde*. Entire compositions were analyzed when possible. Some of the early (rare) Contradances were unavailable as entire compositions. In those cases, this researcher analyzed available excerpts. Figure 59 includes the Contradances by Saumell identified by title, tonalities and keys, and corresponding numbers of measures of each composition or excerpt.

Contradance	Key & Tonality	Measures
<i>La Virtuosa</i>	Eb Major	1-32
<i>La Quejosita</i>	D Major/B Major	1-24
<i>La Linda</i>	G Major	8

<i>El Somaten</i>	C Major	9-16
<i>Tu Sonrisa</i>	D Major	9-12
<i>El Jigote de Trinita</i>	G Major	1-8
<i>La Celestina</i>	C Major	1-3
<i>L'amtie</i>	Eb Major	1-4
<i>La Nina Bonita</i>	Ab Major / F Minor	1-24
<i>La Matilde</i>	Bb Major	1-16

Figure 59. Key, tonality, title, and measures of select Contradances by Saumell.

Habaneras by Cervantes

Ignacio Cervantes (1847-1905) composed the twenty one *Danzas Cubanas* (Habanera style) between the years of 1875 to 1895. Cervantes includes a title for most of the dances, however, some appear with only a tempo marking. All of the dances are in AB form with 16 measures in each section. All of the dances are written in duple meter. The dance numbers 1, 2, 3, 4, 6, 8, 12 and 13 were selected by this researcher for analysis. This researcher considered those examples to be representatives of the set of dances in terms of compositional style and rhythm. Cervantes composed these dances in different tonalities and keys. Figure 60 includes each dance selected for analysis identified by number, keys and tonalities, and the corresponding title/tempo marking.

Number	Key & Tonality	Title
1	E Minor	<i>La Celosa</i>
2	E Major	<i>Los Tres Golpes</i>
3	E Major	<i>PST! Andantino Sherzando</i>
4	Eb Major	<i>Capriccioso</i>
6	F Minor	<i>El velorio (Veille Funebre)</i>
8	A Major	<i>Porque, eh? (Pourquoi, hein?)</i>
12	E Major	<i>Andante Cantabile</i>
13	Ab Major	-

Figure 60. Number, key and tonality, and title of select *Danzas Cubanas* by Cervantes.

Analysis

This researcher investigated the Contradances by Saumell and the *Danzas Cubanas* by Cervantes to identify distinct characteristics that define each style. These characteristics were identified as follows.

1. There is an alternating of the of ternary pulses and the binary pulses in the Contradances in 6/8 meter (3+3+2+2+2). The combination of this alternating of meter, especially when it occurs in both lines, offers a complex rhythmic syncopated sequence;
2. The Habanera rhythmic pattern appears as a common feature in the bass line of the styles of the Contradances in 2/4 meter and in the Habanera;
3. The rhythmic sequence of the characteristic syncopation between two binary pulses appears in compositions by Saumell and by Cervantes in 2/4 meter;
4. The characteristic syncopation is rarely included in the bass line of the Cuban compositions. The characteristic syncopation pattern is always a melodic rhythm (in the top line). When the characteristic syncopation pattern is in the bass line especially in compositions by Cervantes, it is imitating the melodic line or forming two melodic voices;
5. The Tresillo rhythmic element is seen in the bass line of the compositions in 2/4;
6. The Cinquillo rhythmic element is seen in both lines and in both 6/8 meter compositions and 2/4 meter compositions; and
7. The rhythmic variation of the Cinquillo in the melodic line is seen in the 2/4 meter compositions.

This researcher compared these Cuban rhythmic characteristics with the African/Haitian time lines, and identified that these Cuban rhythmic patterns are seen in the following four different time lines, when transformed into traditional notation.

1. The *segon* drum time line from the Yanvalou dance of the Haitian *voodoo*;
2. The *boula* drum time line from the Petwo dance of the Haitian *voodoo*;
3. The *shell* time line from the Juba dance of the Haitian *voodoo*; and
4. The Seven stroke version from West African twelve pulse.

Figure 61 includes the rhythmic evolution of Cuban music as seen in the rhythms from compositions by Saumell and Cervantes. It is essential to explain that all rhythmic sequences included in Figure 60 were collected from selected compositions, especially the sequences in 6/8 meter. This researcher only connected these rhythmic sequences with the time lines. The following is a description of how this researcher transferred the Cuban rhythmic characteristics to the Figure format with the time lines. Common rhythmic sequences were identified from the selected compositions in connection with the time lines.

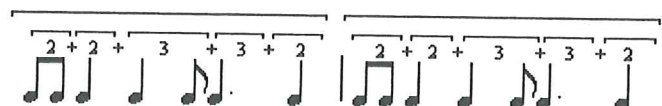
The first time line is the *segon* drum time line. It is presented twice in the Figure 61. This researcher named the sequence composed by 3+3+2+2+2 pulses, a common rhythmic sequence found in Cuban compositions, cycle A (as described below the time line). To demonstrate all rhythmic sequences and their connection with the time lines, this researcher divided Figure 61 into 7 sections:

1. This section includes the Yanvalou *segon* time line. Below it is the most common rhythmic sequences found in the Contradances by Saumell in 6/8 meter. There is repetition in the first sequences, because these sequences are cyclical in the Saumell compositions;

2. This section includes the same sequence of the Yanvalou *segon* time line (3+3+2+2+2) found in 6/8 meter, now adapted in 2/4 meter (see the last rhythmic sequence in 6/8 meter for comparison). The accents in the sequences are included in the Saumell compositions. This sequence, includes the characteristic syncopation in 2/4 meter. Two additional sequences found in the Contradances by Saumell in 2/4 meter are included following the characteristic syncopation.
3. This section includes a rhythmic variation of the triplet plus two eighth-notes (3+2 pulses, also included in the Yanvalou time line and in the compositions by Saumell). The Tresillo and the Habanera rhythmic pattern are outgrowths of these variations.
4. This section includes the *segon* drum time line again (3+3+2+2+2), to illustrate the development of the Cinquillo in both 6/8 meter and 2/4 meter. These rhythmic sequences are included in the Contradances by Saumell in 6/8 meter and in 2/4 meter.
5. This section includes 3 time lines: West African seven pulse, Petwo *boula* drum time line, and the Juba *shell* time line. The Petwo *boula* time line, and the Juba *shell* time line, from the Haitian *voodoo*, include the Cinquillo rhythmic element. The West African seven pulse time line includes a variation of the Cinquillo.
6. This section includes Cervantes rhythmic sequences. Each rhythmic sequence includes the characteristic syncopation between binary pulses. The sequence of 3+3+2+2+2 from the Yanvalou *segon* time line is included in the compositions by Cervantes with a defined rhythmic sequence of 2+2+3+3+2 (as the original Yanvalou *segon* time line).
7. This section includes the rhythmic sequences of the Cinquillo, Tresillo, and the Cinquillo variation, common rhythmic sequences included in compositions by Cervantes.

The Haitian/African Time Lines and the Afro-Rhythms Connection in Cuban music

Yanvalou *Segon* drum rhythm

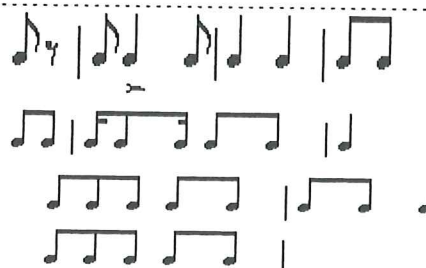


6/8 Contradance



Characteristic Syncopation

2/4 Contradance



Tresillo

Habanera

Cinquillo

6/8

2/4

West African Seven pulse rhythms

X . X . XX . X XXX .

Cinquillo variation

Petwo *boula* drum rhythm

3 + 3 + 2

CINQUILLO

Juba *shell*

Cinquillo

Cervantes Rhythmic Sequences

Cycle A

Cinquillo

Tresillo


Cinquillo variation

Figure 61. The African/Haitian time lines and the connection to Afro-rhythms in Cuban music – compositions by Saumell and by Cervantes.

The above-mentioned sequences were classified by this researcher. This classification was realized regarding each type of rhythmic sequence, its relation with the time lines, and its location in the composition (bass line or melodic line). Each rhythmic sequence was named "Cycle" by this researcher. All Cuban cycles include a double subdivision – melodic line and bass line – indicating the measures in which the rhythmic sequences appear. The following is a description of each cycle in the compositions by Saumell in 6/8 meter.

1. Cycle A: The original Yanvalou *segon* rhythm. This cycle refers to the measures in which the whole rhythmic sequence of 3+3+2+2+2 appears in the compositions in 6/8 meter.
2. Hemiola rhythmic element: Refers to the measures in which the binary pulse appears as an alternating of the original 6/8 meter of the composition.

The tables created in this analysis relating to the compositions in 2/4 (by Saumell and Cervantes) include different subdivisions. Each table is divided into 4 cycles: Cycle A, Habanera rhythmic pattern, Tresillo, and Cinquillo.

1. Cycle A: Refers to the rhythmic sequence of the characteristic syncopation between binary pulses, similar to the Yanvalou *segon* time line, but already transformed by Saumell in his compositions in 2/4 meter;
2. The Habanera rhythmic pattern ();
3. The Tresillo rhythmic pattern; and
4. The Cinquillo rhythmic pattern.

The following is an analysis of the Contradances by Saumell in 6/8, 2/4, and 3/4 meter, and the *Danzas Cubanas* by Cervantes. Similar information is provided

for each composition regarding its rhythmic organization.

Table 29 includes a description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear in the Contradances by Saumell written in 6/8 meter: *La Quejosita*, *La Celestina*, and *La Matilde*

Table 30 includes a description of the frequency and quantity of the cycles and the specific measures in which these characteristics appear in Contradances by Saumell in 2/4 meter: *El Somaten*, *Tu Sonrisa*, *La Linda*, *El Jigote de Trinita*, *L'amitie*, and *La Nina Bonita*.

Contradance In 6/8	Cycle A	Hemiola From 6/8 to 3/4
<i>La Quejosita</i> Section A (D Major) (8 measures) Section B (G Major) (16 measures)	1-2, 3-4, 5-6, 6-7-8, 9-10, 13-14, 17-18, 19-20, 21-22 2-3-4 (bass line) 6-7-8 (bass line)	2, 4, 6, 8, 10, 12, 13, 14, 18, 20, 22,
<i>La Celestina</i> Section A (C Major) (4 measures)		1, 3
<i>La Matilde</i> Section A and B (Bb Major) (16 measures)	1*, 2*, 3*, 4*, 7, 9, 15*	7, 9, 10, 11, 12, 15, 16 (1 st eding)
Total Measures 44	18 seq. = 31 m.	20 seq. = 20 m.

(seq. = sequences/ m. = measures)

* Measures in that include the corresponding Habanera rhythmic pattern in 6/8 meter.

Table 29. Three Contradances by Saumell *La Quejosita*, *La Celestina* and *La Matilde*.

Table 31 includes a description of the frequency and quantity of the rhythmic cycles, and the specific measures in which these characteristics appear, in the only Contradance in 3/4 meter, written by Saumell: *La Virtuosa*.

Contradance in 2/4	Cycle A		Habanera Rhythm		Tresillo		Cinquillo	
	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line
<i>El Somaten</i> section B (8 measures) C Major				10, 11			10, 11, 12, 16	14
<i>Tu Sonrisa</i> section A (4 measures) D Major						1, 2 3, 4		
<i>La Linda</i> Section A (1 measure) G Major							8	
<i>El Jigote de Trinita</i> Section A (8 measures) G Major	3*			2, 3, 6, 7				
<i>L'amtie</i> Section A (4 measures) Eb Major	1			1, 2, 3, 4				
<i>La Nina Bonita</i> Section A+B (24 measures) Ab Major /F Minor	4-5-6, 12-13-14, 22			2, 10, 22		1, 9, 17, 18, 19, 20, 21, 23		
Total measures 49	5 seq. = 9 m.	-	-	13 seq. = 13 m.	-	12 seq. = 12 m.	5 seq. = 5 m.	1 seq. = 1 m.

(seq. = sequences/ m. = measures)

* characteristic syncopation is augmented

Table 30. Six Contradances by Saumell: *El Somaten*, *Tu Sonrisa*, *La Linda*, *El Jigote de Trinita*, *L'amtie* and *La Nina Bonita*.

3/4 Contradance <i>La Virtuosa</i>	Cycle A	Habanera Rhythm	Hemiola From 6/8 to 3/4
Section A Eb Major (16 measures) Section B c minor (16 measures)			
Total measures 16	-	-	-

Table 31. Contradance *La Virtuosa* by Saumell.

The next section includes an analysis of the *Danzas Cubanas* by Cervantes, in 2/4 meter. Table 32 includes a description of the frequency and quantity of the rhythmic cycles, and the specific measures in which these characteristics appear in *La Celosa* by Cervantes.

Table 33 includes a description of the frequency and quantity of the rhythmic cycles, and the specific measures in which these characteristics appear in *Los Tres Golpes* by Cervantes.

Section	Cycle A		Habanera Rhythm		Tresillo		Cinquillo	
	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line
A 16 measures	1- 2, 2-3-4, 8-9-10, 10-11-12			1, 2, 3,4 8, 9, 10, 11, 12				5*, 6*, 13*, 14*
B 16 measures	17-18-19, 21-22-23, 24-25-26, 26-27-28,	17-18-19 19-20-21 21-22-23		28		27, 31		
Total Measures 32	8 seq. = 20 m.	3 seq. = 7 m.		10 times		2 times		4 times

(seq. = sequences/ m. = measures)

*The Cinquillo does not present the tie between beats

Table 32. Frequency and quantity of syncopated rhythms in Cervantes *La Celosa* by Cervantes.

Table 34 includes a description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear in *PST!* by Cervantes.

Section	Cycle A		Habanera Rhythm		Tresillo		Cinquillo	
	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line
A 16 m.	1-2-3, 5-6, 9-10-11, 12-13	6-7-8, 13-14-15		13		2, 10, 14		
B 16 m.	19-20, 21- 22, 25-26, 29-30-31			20		19, 23, 25, 27		
Total m. 32	8 seq. = 19 m.	2 seq. = 6 m.		2 seq.		7 seq.		

(seq. = sequences/ m. = measures)

Table 33. Frequency and quantity of rhythmic cycles in *Los Tres Golpes* by Cervantes.

Section	Cycle A		Habanera Rhythm		Tresillo		Cinquillo	
	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line
A 16 measures	4-5--6, 7-8- 9, 13-14-15	1-2-3, 9-10-11, 13-14-15				5, 8		
B 16 measures	19-20-21, 27-28-29	17-18-19 25-26-27		23		21, 22, 29, 30, 31		
Total Measures 16	5 seq. = 15 m.	5 seq. = 15 m.		1 seq.		7 seq.		

Table 34. Frequency and quantity of rhythmic cycles in *PST!* by Cervantes.

Table 35 includes a description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear in *Capriccioso* by Cervantes.

Section	Cycle A		Habanera Rhythm		Tresillo		Cinquillo	
	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line
A 16 measures	2-3-4, 6-7-8, 10-11-12, 14-15-16			1*, 2*, 3, 4, 5*, 7, 9*, 10*, 11, 12, 13, 14		7, 15, 16	8	8
B 16 measures	17-18-19 19-20-21 21-22-23, 23-24-25, 29-30-31			17, 18, 20, 22*, 24, 25, 26, 27, 28, 29, 30*		19, 31		
Total m. 32	9 seq. = 26 m.			23 times		5 times	1 time	1 time

(seq. = sequences/ m. = measures) In measures: 1*, 2*, 5*, 9*, 10*, the Habanera pattern is augmented, in measures 22*, 30*, a rhythmic variation of the Habanera is seen.

Table 35. Frequency and quantity of rhythmic cycles in *Capriccioso* by Cervantes.

Table 36 includes a description of the frequency and quantity of the rhythmic cycles, and the specific measures in which these characteristics appear in *El Velorio* by Cervantes.

Section	Cycle A		Habanera Rhythm		Tresillo		Cinquillo	
	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line
A 16 measures	2-3-4, 6-7-8, 8-9-10 10-11-12, 14-15-16	2-3-4, 6-7-8, 8-9-10, 10-11-12, 14-15-16	2			5, 13		
B 16 measures	16-17-18, 20-21-22, 24-25-26	16-17-18,	20	23*, 25		18, 21, 22, 26		
Total 16 Measures	8 seq. = 21 m.	6 seq. = 15 m.	2 seq.	2 seq.		6 seq.		

(seq. = sequences/ m. = measures) Measure 23, includes an augmented Habanera rhythmic pattern

Table 36. Frequency and quantity of rhythmic cycles in *El Velorio* by Cervantes.

Table 37 includes a description of the frequency and quantity of the rhythmic cycles, and the specific measures in which these characteristics appear in *Porque, eh?* by Cervantes.

Table 38 includes a description of the frequency and quantity of the rhythmic cycles and the specific measures in which these characteristics appear in the *Andante Cantabile* by Cervantes.

Section	Cycle A		Habanera rhythm		Tresillo		Cinquillo	
	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line
A 16 measures	1-2-3, 3-4-5, 5-6--7, 9-10-11, 11-12-13, 14-15-16	6-7-8		3, 4, 6, 11, 12		1, 2, 9, 10, 15		
B 16 measures	17-18-19, 21-22-23	21-22- 23				19	23, 24, 27	23, 24, 27
Total Measures 32	8 seq. = 21 m.	2 seq. = 6 m.		5 times		6 times	3 times	3 times

(seq. = sequences/ m. = measures)

Table 37. Frequency and quantity of rhythmic Cycles in *Porque, eh?* by Cervantes.

Table 39 includes a description of the frequency and quantity of the rhythmic cycles, and the specific measures in which these characteristics appear in *Danza XIII* by Cervantes.

Section	Cycle A		Habanera rhythm		Tresillo		Cinquillo	
	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line
A 16 measures	1-2, 2-3-4, 6-7-8, 9-10-11, 14-15-16	6-7-8, 14-15-16		1, 3, 8, 9, 11				
B 16 measures	17-18-19, 25-26-27, 27-28-29			19, 20, 22, 23, 24, 27, 28		17, 18, 21, 25, 26		
Total Measures 32	10 seq. = 23 m.	2 seq. = 2 m.		12 times		5 times		

(seq. = sequences/ m. = measures)

The section A is repeated.

Table 38. Frequency and quantity of rhythmic cycles in *Andante Cantabile* by Cervantes.

Section	Cycle A		Habanera Rhythm		Tresillo		Cinquillo	
	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line	Melodic Line	Bass Line
A 16 measures	5-6-7, 6-7-8, 13-14-15, 14-15-16	6-7-8, 14-15-16		6, 14		1, 2, 3, 5, 9, 10, 11, 13		
B 16 measures	17-18-19, 19-20-21, 21-22-23, 25-26-27, 27-28-29			20, 28		18, 26	30	22
Total Measures 32	9 seq. = 20 m.	2 seq. = 6 m.		4 times		10 times	1 time	1 time

(seq. = sequences/ m. = measures)

The section A is repeated

Table 39. Frequency and quantity of cycles in *Dance number XIII* by Cervantes.

The following is a summary of the Cuban music analyses conducted in this study. The researcher illustrates each group of compositions and the general frequency and quantity of the measures in which the rhythmic cycles appear in each style (Table 40, 41, and 42). The same format was used to present the information in each Table, when possible, for clarity. Moreover, the information included represents the appearances of the rhythmic cycles within each melodic line and bass line of the selected compositions.

Table 43 includes a comparison between the compositions in 2/4 meter by Saumell and Cervantes.

Saumell Contradance in 6/8	Cycle A	Hemiola
Total of measures: 44	31	20
100%	70%	45%

Table 40. Summary of the Contradances in 6/8 meter by Saumell.

Saumell Contradance in 2/4	Cycle A	Habanera	Tresillo	Cinquillo
Total of measures: 49	9 (melodic line) 0 (bass line)	0 (melodic line) 13 (bass line)	0 (melodic line) 12 (bass line)	5 (melodic line) 1 (bass line)
100%	18%	26%	24%	10%

Table 41. Summary of the Contradances in 2/4 meter by Saumell.

Cervantes	Cycle A		Habanera Rhythm		Tresillo		Cinquillo	
	<i>Melodic Line</i>	<i>Bass Line</i>	<i>Melodic Line</i>	<i>Bass Line</i>	<i>Melodic Line</i>	<i>Bass Line</i>	<i>Melodic Line</i>	<i>Bass Line</i>
256 Measures	166	53	2	59		48	5	9
100%	65%	20%	0.7 %	23%	-	19%	1.9%	3.5%

Table 42. Summary of the Danzas Cubanas by Cervantes.

Compositions 2/4	Cycle A		Habanera rhythm		Tresillo		Cinquillo	
	<i>Melodic Line</i>	<i>Bass Line</i>	<i>Melodic Line</i>	<i>Bass Line</i>	<i>Melodic Line</i>	<i>Bass Line</i>	<i>Melodic Line</i>	<i>Bass Line</i>
Saumell	18%	-	-	26%	-	24%	10%	0.020%
Cervantes	65%	20%	0.7%	23%	-	19%	1.9%	3.5%

Table 43. Summary of the compositions by Saumell and Cervantes

North American Music Ragtime Style

The American Ragtime style emerged in United States in the end of the Nineteenth Century. Waterman (1959) states that “the appearance of William Krell’s *Mississippi Rag* in 1897 has given that year acceptance as the beginning date of the

Ragtime publication” (p. 14). Scott Joplin is considered one of the most representative composers of the Ragtime style. Eight compositions by Joplin were selected by this researcher for analysis in this dissertation: *Maple Leaf Rag*, *The Cascades*, *Elite Syncopation*, *The Entertainer*, *The Ragtime Dance*, *The Favorite*, *Eugenia*, and *A Breeze from Alabama*. Figure 62 includes the title, subtitle, year of the composition, and tempo/marking of the selected Ragtime.

Title	Subtitle	Year	Tempo Marking
<i>Maple Leaf Rag</i>	-	1899	Tempo di marcia
<i>The Cascades</i>	A Rag	1904	Tempo di marcia
<i>Elite Syncopation</i>	-	1902	Not fast
<i>The Entertainer</i>	A Ragtime two step	1902	Not fast
<i>The Ragtime Dance</i>	A stop-time two step	1906	Not too fast
<i>The Favorite</i>	A Ragtime two step	1904	Slow march tempo
<i>Eugenia</i>	-	1905	Slow march tempo
<i>A Breeze from Alabama</i>	A Ragtime two step	1902	Not fast

Figure 62. Title, subtitle, year, and tempo marking of the selected Ragtime by Joplin.

The primary analysis of Ragtime compositions by Joplin include the following rhythmic characteristics.

1. The Ragtime compositions are always in binary meter and include the constant march rhythm in the bass line;

2. The binary pulse in the bass line sustains the syncopated rhythms in the melodic line;
3. The syncopated rhythms are not included in the bass line;
4. The melodic line includes the common rhythmic sequence of 8 sixteenth-notes with a tie between beats plus the characteristic syncopation pattern. The first rhythm of this sequence can be considered a false Tresillo rhythmic element, using Cuban terminology, whereas there is a natural accentuation in the fourth sixteenth-note of the first beat, resulting by the tie between beats. In this sequence, the characteristic syncopation pattern is found in the measure of the musical phrase;
5. The melodic line includes a rhythmic sequence composed only by the false Tresillo occupying two beats. This sequence includes the same structure of the 8 sixteenth-notes with a tie between beats. Sometimes this pattern is also seen with rhythmic variations, but the tie between beats is always present;
6. The characteristic syncopation pattern in the second beat, after a binary beat, is another common characteristic in Ragtime by Joplin. The augmented characteristic syncopation pattern occupying a whole binary measure, is also seen in the compositions by Joplin;
7. The Cinquillo, using Cuban terminology, followed by the characteristic syncopation pattern is another characteristic included in the Ragtime. In this sequence, the Cinquillo appears as a false rhythm. The second beat of the measure (second part of the Cinquillo rhythm) appears with 4 sixteenth-notes instead of two sixteenth-notes plus one eighth-note. In this sequence, the tie between beats is always present; and
8. The Cinquillo rhythmic pattern as an individual sequence is also included in Ragtime.

This researcher compared these Ragtime rhythmic sequences with the African/Haitian time lines and identified that such sequences are similar to the rhythms found in two Haitian *voodoo* time lines, when transformed into traditional notation:

1. The *maman* drum time line from Yanvalou Haitian dance; and
2. The *shell* time line from Juba Haitian dance. (A drum is played by two musicians. One uses his hand and the other uses a stick or shell).

When transformed into traditional notation, the *maman* time line includes the Tresillo plus the characteristic syncopation pattern. When transformed into traditional notation, the *shell* time line includes the Cinquillo plus the characteristic syncopation pattern. The following is a description of how this researcher transferred these rhythmic characteristics commonly found in the Ragtime compositions by Joplin.

This researcher divided the rhythmic sequences included in Ragtime in different Cycles: A, A1, B, B1 and AB. Table 63 includes the time lines and the cycles relating to each time line. On the left side is the Yanvalou *maman* drum time line, and on the right side is the Juba *shell* time line.


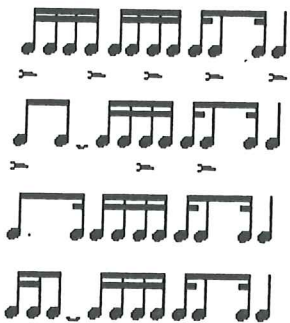

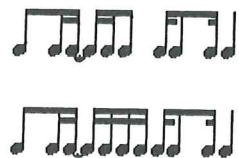
Below the Yanvalou time line, it (the same Yanvalou *maman* time line) appears already transformed in traditional notation. Three groups of rhythmic sequences are included below the Yanvalou time line: Cycle A, Cycle A1, and Cycle AB. The rhythmic sequences of each cycle are related to the same Yanvalou *maman* time line.

Below the Juba *shell* time line (right side), is the same time line transformed into traditional notation. Below the time line, already transformed, is two types of rhythmic sequences included in the compositions: Cycle B (corresponds to the complete time line:

Cinquillo plus characteristic syncopation), and Cycle B1 (corresponds to the Cinquillo or false Cinquillo).

Figure 63 includes the most characteristic rhythmic sequences in the compositions by Joplin, and their connection with the *maman* and *shell* time lines.

The Haitian *maman* and *shell* Time Lines and Their Connection to Ragtime

The Yanvalou and Juba Rhythm and Their Connections in North American Music	
Ragtime Rhythmic Sequences in the Compositions by Joplin	
<p style="text-align: center;">Yanvalou <i>maman</i> drum</p>  <p style="text-align: center;">Complete sequence (Cycle A)</p> 	<p style="text-align: center;">Juba <i>shell</i></p>  <p style="text-align: center;">Complete sequence (cycle B)</p> 

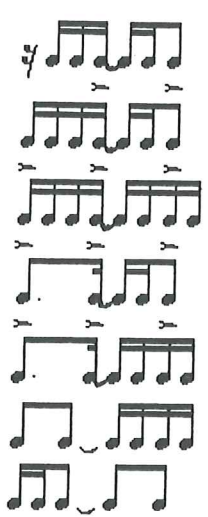


<p>False Tresillo (Cycle A1)</p>  <p>Characteristic Syncopation Cycle AB</p> 	<p>Cinquillo - Cycle B1</p> 
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Figure 63. The Haitian *maman* and *shell* time lines and their connection to Ragtime.

The above-mentioned rhythmic sequences were classified in the American Ragtime compositions. The classifications of these rhythmic sequences were realized, as in the Cuban and Brazilian music, regarding each type of rhythmic cycle in relation to the original time line. The following is a description of the cycles and their correspondent rhythms.

Cycle A: Refers to the sequence of the false Tresillo rhythmic pattern, plus the characteristic syncopation pattern from the whole *maman* time line.

Cycle A1: Refers to the false Tresillo rhythmic pattern and its rhythmic variations as seen in Figure 63. This cycle is the first part of Cycle A (without the characteristic syncopation);

Cycle B: Refers to the original Cinquillo pattern or the false Cinquillo, plus the characteristic syncopation pattern from the whole *Juba shell* time line.

Cycle B1: Refers only to the Cinquillo rhythmic pattern or the false Cinquillo. This cycle is the first part of Cycle B (without the characteristic syncopation);

Cycle AB: Refers to four sixteenth-notes and their rhythmic variants plus the characteristic syncopation pattern. Because both sequences (A and B) are similar, Cycle AB was considered by this researcher as the second part of Cycle A.

The next section is a presentation of the musical analyses of eight Ragtime compositions by Joplin. Similar information is provided for each composition regarding its rhythmic organization.

The *Maple Leaf Rag* by Scott Joplin was written in 1899. It is in ABAC form with a trio. The form, tonality, and meter of the *Maple Leaf Rag* are illustrated in Table 44.

Form	A Measures: 1-16	B Measures: 17-32	A Measures: 33-48	Trio Measures: 49-64	C Measures: 65-80
Tonality	Ab Major	Ab Major	Ab Major	Db Major	Ab Major
Meter	2/4	2/4	2/4	2/4	2/4

Table 44. Form of *Maple Leaf Rag* by Joplin.

A description of the frequency and quantity of rhythmic cycles, and the specific measures in which these characteristics appear is provided in Figure 45.

Section	A	A1	B	B1	AB
A 16 measures		2, 4	9-10, 13-14		1, 3, 5, 6, 11, 15
B 16 measures		18, 20, 22, 24, 26			17, 19, 21, 23, 25, 27
A 16 measures		34, 36	41-42, 43-44		33, 35, 37, 38, 46, 47
Trio 16 measures	63-64	49, 50, 52, 53, 54, 56, 57, 58, 60, 62			59
C 16 measures			66-67	74	68, 70, 71, 72, 75, 76, 78, 79
Total Measures 80	1 seq. 2 m.	19 seq. 19 m.	5 seq. 10 m.	1 seq. 1 m.	27 seq. 27 m.

(seq. = sequences/ m. = measures)

Table 45. Frequency and quantity of rhythmic cycles in the *Maple Leaf Rag*.

The Cascades – A Rag by Scott Joplin was written in 1904. It is in ABCD form with an Introduction. The form, tonality, and meter of *The Cascades – A Rag* are illustrated in Table 46.

Form	Introduction Measures: 1-4	A Measures: 5-20	B Measures: 21-36	Transition Measures: 37-40	C Measures: 41-56	D Measures: 57-72
Tonality	C Major	C Major	C Major	C Major	Bb Major	Eb Major
Meter	2/4	2/4	2/4	2/4	2/4	2/4

Table 46. Form of *The Cascades – A Rag* by Joplin.

A description of the frequency and quantity of rhythmic cycles, and the specific measures in which these characteristics appear is provided in Table 47.

Section	A	A1	B	B1	AB
Introduction 4 measures					
A 16 measures				13, 17	15, 19
B 16 measures				22, 23, 24, 26, 27, 30, 31, 32	34
Transition 4 measures					
C 16 measures		42, 46, 47, 50, 54		48	43, 51, 53
D 16 measures		62, 63, 68	58-59, 60-61, 66-67		69
Total measures 72		8 seq. 8 m.	3 seq. 6 m.	11 seq. 11 m.	7 seq. 7 m.

(seq. = sequences/ m. = measures)

Table 47. Frequency and quantity of rhythmic cycles in *The Cascades – A Rag*.

Elite Syncopations by Scott Joplin was written in 1902. It is in ABACD form with an Introduction. The form, tonality, and meter of *Elite Syncopations* are illustrated in Table 48.

Form	Introduction Measures: 1-4	A Measures: 5-20	B Measures: 21-36	A Measures: 37-52	C Measures: 53-68	D Measures: 69-84
Tonality	F Major	F Major	F Major	F Major	Bb Major	Bb Major
Meter	2/4	2/4	2/4	2/4	2/4	2/4

Table 48. Form of *Elite Syncopations* by Joplin.

A description of the frequency and quantity of rhythmic cycles, and the specific measures in which these characteristics appear is provided in Table 49.

Section	A	A1	B	B1	AB
Introduction 4 measures	2-3	1			
A 16 measures	14-15	5, 6, 9, 10, 13, 17, 18			7, 11, 19
B 16 measures	32-33	22, 23, 24, 26, 30, 31, 35			21, 25, 27, 29
A 16 measures	38-39, 46-47	37, 41, 42, 45, 49, 50			43, 51
C 16 measures		58, 66			54, 59, 62
D 16 measures					69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83
Total measures 84	5 seq. 10 m.	23 seq. 23 m.		-	27 seq. 27 m.

(seq. = sequences/ m. = measures)

Table 49. Frequency and quantity of rhythmic cycles in *Elite Syncopation*.

The Entertainer – A Ragtime Two Step by Scott Joplin was written in 1902. It is in ABACD form with an Introduction. The form, tonality, and meter of *The Entertainer – A Ragtime Two Step* are illustrated in Table 50.

Form	Introduction Measures: 1-4	A Measures: 5-20	B Measures: 21-36	A Measures: 37-52	C Measures: 53-68	D Measures: 69-88
Tonality	C Major	C Major	C Major	C Major	F Major	C Major
Meter	2/4	2/4	2/4	2/4	2/4	2/4

Table 50. Form of *The Entertainer—A Ragtime Two Step* by Joplin.

A description of the frequency and quantity of rhythmic cycles and the specific measures in which these characteristics appear is provided in Table 51.

Section	A	A1	B	B1	AB
Introduction 4 measures		1, 2, 3			
A 16 measures		7, 11, 15, 17, 18, 19			
B 16 measures	36	34	26-27	21, 22, 25, 29, 30, 33	35
A 16 measures		39, 43, 47, 49, 50, 51			
C 16 measures		53*, 55*, 59, 61*, 63*		57, 65	
Transition 4 measures		70		69	71
D 16 measures		86	85, 87	73, 75, 77, 81, 83	85, 87
Total measures 88	1 seq. 1 m.	23 seq. 23 m.	1 seq. 1 m.	14 seq. 14 m.	4 seq. 4 m.

* The first rhythm of the cycle is modified.

(seq. = sequences/ m. = measures)

Table 51. Frequency and quantity of rhythmic cycles in *The Entertainer – A Ragtime Two Step*.

The Ragtime Dance – A Stop Time Two Step by Scott Joplin was written in 1906. It is in ABCD form with an Introduction. The form, tonality, and meter of *The Ragtime Dance – A Stop Time Two Step* are illustrated in Table 52.

Form	Introduction Measures: 1-4	A Measures: 5-20	B Measures: 21-36	C Measures: 37-52	Transition Measures: 53-68	D Measures: 69-76
Tonality	Bb Major	Bb Major	Eb Major	Eb Major	Eb Major	Eb Major
Meter	2/4	2/4	2/4	2/4	2/4	2/4

Table 52. Form of *The Ragtime Dance A Stop Time Two Step* by Joplin.

A description of the frequency and quantity of rhythmic cycles, and the specific measures in which these characteristics appear is provided in Table 53.

The Favorite – A Ragtime Two Step by Scott Joplin was written in 1904. It is in ABACD form with an Introduction. The form, tonality, and meter of *The Favorite – A Ragtime Two Step* are illustrated in Table 54.

A description of the frequency and quantity of rhythmic cycles, and the specific measures in which these characteristics appear is provided in Table 55.

Section	A	A1	B	B1	AB
Introduction 4 measures					
A 16 measures	7-8, 18-19*	5*, 7, 9*, 11, 15		6, 10, 14	8, 16
B 16 measures	24-25	21*, 22, 23*, 29*, 30, 31*, 32			
C 16 measures	37-38, 45-46	42, 44			
Transition 16 measures		53*, 55*, 57*, 59*			
D 8 measures	71-72	75			
Total Measures 76	6 seq. 12 m.	22 seq. 22 m.			2 seq. 2 m.

* The first rhythm of the cycle is modified.
(seq. = sequences/ m. = measures)

Table 53. Frequency and quantity of rhythmic cycles in *The Ragtime Dance – A Stop Time Two Step*.

Form	Introduction Measures: 1-4	A Measures: 5-20	B Measures: 21-36	A Measures: 37-52	C Measures: 53-68	D Measures: 69-84
Tonality	Bb Major	Bb Major	G Major	Bb Major	Eb Major	Eb Major
Meter	2/4	2/4	2/4	2/4	2/4	2/4

Table 54. Form of *The Favorite – A Ragtime Two Step* by Joplin.

Section	A	A1	B	B1	AB
Introduction 4 measures		2			
A 16 measures			5-6, 7-8, 13-14, 15-16		
B 16 measures				21, 22, 23, 24, 29, 30, 31, 32	
A 16 measures			37-38, 39-40, 45-46, 47-48		
C 16 measures					55, 63, 65
D 16 measures					81
Total measures 84		1 seq. 1 m.	8 seq. 16 m.	8 seq. 8 m.	4 seq. 4 m.

(seq. = sequences/ m. = measures)

Table 55. Frequency and quantity of rhythmic cycles in *The Favorite – A Ragtime Two Step*.

Eugenia by Scott Joplin was written in 1905. It is in ABACD form with an Introduction. The form, tonality, and meter of *Eugenia* are illustrated in Table 56.

Form	Introduction Measures: 1-4	A Measures: 5-20	B Measures: 21-36	A Measures: 37-52	C Measures: 53-68	D Measures: 69-100
Tonality	Bb Major	Bb Major	Bb Major	Bb Major	Eb Major	Eb Major
Meter	2/4	2/4	2/4		2/4	2/4

Table 56. Form of *Eugenia* by Joplin.

A description of the frequency and quantity of rhythmic cycles, and the specific measures in which these characteristics appear is provided in Table 57.

Section	A	A1	B	B1	AB
Introduction 4 measures		1, 2			
A 16 measures		5, 6, 8, 9, 10, 13, 14, 16, 17, 18			7, 11, 15, 19
B 16 measures		26, 28		21, 22, 23, 24, 29, 30, 31, 32, 34, 35	25, 27, 33
A 16 measures		37, 38, 40, 41, 42, 45, 46, 48, 49, 50			39, 43, 47, 51
C 16 measures		53*, 54*, 55*, 57, 58, 59, 61*, 62*, 63*, 65, 66			56, 64
D 16 measures		81*, 82*, 83*, 85, 86*, 87*, 89, 90, 91, 93*, 94*, 95*, 97, 98, 99		70, 74	69, 73, 88, 96
Total measures 100	-	51 seq. 51 m.		12 seq. 12 m.	17 seq. 17 m.

* The first rhythm of the cycle is modified
(seq. = sequences/ m. = measures)

Table 57. Frequency and quantity of rhythmic cycles in *Eugenia*.

A Breeze From Alabama – A Ragtime Two Step by Scott Joplin was written in 1902. It is in ABCDB form with an Introduction. The form, tonality, and meter of *A Breeze From Alabama – A Ragtime Two Step* are illustrated in Table 58.

A description of the frequency and quantity of rhythmic cycles and the specific measures in which these characteristics appear is provided in Table 59.

Form	Introduction Measures: 1-4	A Measures: 5-20	B Measures: 21-36	C Measures: 37-52
Tonality	C Major	C Major	C Major	Ab Major
Meter	2/4	2/4	2/4	2/4

Transition Measures: 53-56	D Measures: 57-72	Transition Measures: 73-76	B Measures: 77-100
	F Major		A Major
2/4	2/4	2/4	2/4

Table 58. Form of *A Breeze From Alabama* by Joplin.

Section	A	A1	B	B1	AB
Introduction 4 measures					
A 16 measures		5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16			
B 16 measures		33*, 34*			23, 24, 31, 32
C 16 measures	37-38*, 39-40*, 41-42*, 45-46*, 49-50*	43*, 47*, 51*			
Transition 16 measures	54-55	53*			55
D 16 measures		71			
Transition 16 measures		73*, 74*			
B 16 measures		89*, 90*			79, 80, 87, 88
Total measures 92	6 seq. =12 m.	22 seq. 22 m.			8 seq. 8 m.

(seq. = sequences/ m. = measures)

Measures 57, 59, 61, 63, 65, 67, 69- The cycle appears with the original Habanera rhythm

* The first rhythm of the cycle is modified. The sequences 54-55 appear in an augmented version.

Table 59. Frequency and quantity of rhythmic cycles in *The Ragtime Dance – A Breeze From Alabama*.

The following is a summary of the analyses of the selected compositions by Joplin, and a summary of the frequency and quantity of the measures in which the rhythmic cycles are presented. Table 60 includes the summary of the Ragtime compositions.

Compositions	A	A1	B	B1	AB
Maple Leaf Rag/1889 80 measures	2	19	10	1	27
The Cascades/1904 72 measures	-	8	6	11	7
Elite Syncopation/1902 84 measures	10	23	-	-	27
The Entertainer/ 1902 88 measures	1	23	2	14	4
Ragtime Dance/1906 76 measures	12	22	-	-	2
The Favorite/1905 84 measures	-	1	16	8	4
Eugenia/1905 100 measures	-	51	-	12	17
A Breeze From Alabama/1902 92 measures	12	22	-	-	8
Total of measures: 676	37	169	34	46	96
100%	5.5%	25%	5%	7%	14%

Table 60. Summary of the American Ragtime compositions.

Chapter Five

Results and Conclusions

The following is a description of the results obtained in this research through the analysis of musical compositions. The results are described in separate sections regarding the music of each country (Brazil, Cuba, and United States).



Brazilian Music

Modinha, Lundu, and Tango/Choro




This researcher identified that the Brazilian rhythmic sequences are identical in the Modinhas (MS. 1596), Lundu, and Brazilian Tango. In addition, this researcher identified that the following rhythmic sequences represent the major rhythmic characteristics of the Brazilian popular music (reported in percentages):





1. Repeated characteristic syncopation patterns in the melodic line (31%);
2. The characteristic syncopation pattern plus two eighth-notes in the bass line (44%);
3. The Habanera rhythmic element plus the characteristic syncopation pattern in the melodic line (20%); and
4. The Habanera rhythmic pattern in the bass line (20%).

When comparing the rhythmic design of the African time lines (West Africa and Angola/Zaire) and the Haitian *voodoo* time lines (Yanvalou, Petwo, and Juba dances) transformed into traditional notation, only two time lines include the above-mentioned characteristics.

1. The Angola/Zaire seven-stroke version with repeated (two) characteristic syncopation patterns (); and
2. The West African five-stroke version with the Habanera rhythmic element followed by the characteristic syncopation patterns (.

This researcher identified that the Brazilian rhythmic characteristics emerged from both Angola/Zaire seven-stroke version, and West Africa five-stroke version time lines. The following is a description of the identified connections between the African time lines and the Brazilian rhythmic sequences in this research.

1. The repeated sequence of two characteristic syncopation patterns are seen in the Angola/Zaire time line, and in the melody of the Modinhas (MS. 1596), Lundu, and Brazilian Tango/Choro ();
2. The sequences of 2 or more characteristic syncopations, a rhythmic variation of the Angola/Zaire time line, is included in the melody of the Modinhas (MS. 1596) as a common feature (53%). This same characteristic is included in the Lundu and the Brazilian Tango/Choro ();
3. The Habanera rhythmic element followed by the characteristic syncopation pattern (from the West African time line) is seen with identical design in the melody of the Modinhas (MS. 1596) (19%) (). This same characteristic is included in the Lundu and the Brazilian Tango/Choro. A rhythmic variation of this pattern is seen in the Lundu *La no Largo da Se* by Candido Inacio da Silva. In this composition, this rhythmic sequence is altered. In this case, the characteristic syncopation, after the Habanera rhythmic element, was changed to four sixteenth-notes;

4. The repeated sequence of the Habanera rhythmic element followed by the characteristic syncopation pattern is seen in the melody of the Modinha (MS. 1596). This same characteristic is included in the Lundu and the Brazilian Tango/Choro

5. The use of two eighth-notes after sequences of the characteristic syncopation, as in the original Angola/Zaire time line, is a common feature in the Modinhas (MS. 1596). This rhythmic sequence is found as a major feature in the bass line of the Tangos by Nazareth

6. The double syncopation existing in the Angola/Zaire time line through the ties (when transformed into traditional notation) is a common feature in the Modinha, Lundu, and the Tangos by Nazareth

7. The presence of the tie between syncopated rhythmic patterns, as seen in both time lines, is a common feature in Modinhas and Lundus. This tie appears transformed as a rest in the Modinhas and Tangos by Nazareth;
8. The Habanera rhythmic pattern (dotted eighth-note and one sixteenth-note plus two eighth-notes) is seen in the melody of the Modinhas (MS. 1596)


In that music, the Habanera rhythmic pattern appears in the middle of the repeated characteristic syncopation as a rhythmic variation. This same pattern appears as a common rhythmic characteristic of the bass line of the Tangos by Nazareth;
9. The characteristic syncopation rhythmic pattern is included in the bass line of the Modinhas number 16, 17, and 18. The characteristic syncopation rhythmic patterns

also appears in the bass line of the Lundu and are in abundance in Brazilian Tangos in the bass line and the melodic line;

10. The rhythmic sequences in the compositions are cyclical, a similar process found in African rhythmic language; and
11. The characteristic syncopation pattern in the first beat of the measure, as a common feature in Brazilian music, is a natural consequence of the double design of this pattern existing in the Angola/Zaire time line. When transformed into binary meter, consequently, one characteristic syncopation pattern is always present in the first beat of the measure.

A difference between the Modinha, Lundu, and Brazilian Tango is the allocation of placement of the rhythmic sequences. In the Modinhas, the Afro-rhythms are almost always seen only in the melodic line (the Modinhas are always duets). A main feature of the bass line in the Modinhas is the four sixteenth-note pattern. The characteristic syncopation appears in the bass line of the Modinhas 16, 17, and 18.

The Lundu and the Brazilian Tango include the rhythmic sequences found in the Modinhas transported from the melodic line to the bass line. In the Lundu, those rhythmic sequences (repeated characteristic syncopation and repeated Habanera rhythmic pattern) appear with more frequency in the melodic line, for example in *La no Largo da Se* (82% – 27 sequences in 33 measures). In the Lundu *Ja se quebrarao os lacos*, by Mesquita, the composer uses the characteristic syncopation in the bass line throughout the composition, and does not include syncopated rhythm in the melody (72% = 34 sequences in 47 measures).

In the Tangos by Nazareth, the syncopated rhythms in the bass line appear as a common feature. Nazareth evenly distributes the syncopated rhythmic patterns in his Tangos. This distribution is in both lines throughout the compositions (64% in the melody and 64% in the bass line).

The compositions by Nazareth include a second phase of the Brazilian popular music. Nazareth defines the functions of each type of syncopated rhythm. He constructs the bass line of the Tangos in two defined rhythmic patterns:

1. The characteristic syncopation plus two eighth-notes (44%); and
2. The Habanera rhythmic pattern (20%).

Nazareth uses all variations included in both time lines (characteristic syncopation and the Habanera rhythmic element) within the melodic line of his Tangos (Cycle A: 20%, Cycle A1: 13%, and Cycle A2: 31%).

1. The repeated sequences of the characteristic syncopation and the repeated sequences of the Habanera rhythmic element in the melody are the main characteristic of the Tangos by Nazareth (64%);
2. It is also a common feature in the compositions by Nazareth, for these sequences to appear at the same time in both lines (constructing two melodic voices);
3. The use of the repeated rhythmic sequences in alternated lines is another characteristic found in the Tangos by Nazareth. In this rhythmic design, the melodic rhythms begin in the bass line and continue in the top line;
4. The use of the repeated characteristic syncopation patterns with sudden change to the Habanera rhythm (or vice-verse), is frequently seen in the

Tangos by Nazareth. This double syncopation was considered by this researcher, as the mixture of both time lines (the Angola/Zaire time line and the West African time line).

Comparing Brazilian music (Modinha, Lundu, and Tango/Choro) with Cuban Music (Contradance and Habanera), and the North American Ragtime, this researcher identified some points that are distinct among the music in each country. The points, relating to the characteristic syncopation, are divided as follows.

1. The double Brazilian characteristic syncopation developed from the Angola/Zaire time line;
2. The Brazilian music included the characteristic syncopation in both lines (melodic and bass line) as a common feature;
3. Within the Brazilian music, the bass rhythm is defined by the characteristic syncopation pattern plus two eighth-notes; and
4. Within the Brazilian music, the repeated sequences of the characteristic syncopation are seen as a common feature in the melodic line.

Cuban Music Contradance and Habanera

The researcher identified that Cuban compositions include rhythmic characteristics from Haitian *voodoo* time lines and West African time lines. The hallmark of the early Cuban music represented in compositions by Saumell, is the alternating of the ternary and binary pulses in the 6/8 Contradances. This structure forms a rhythmic sequence of 3+3+2+2+2 pulses.

The Cuban rhythmic sequence of 3+3+2+2+2 pulses was included in the original Yanvalou *segon* rhythms (2+2+3+3+2) and not in the Yanvalou *segon* time line transformed into traditional notation. Among the time lines with the alternating of pulses, the Yanvalou *segon* time line is the only African rhythmic structure that includes a repeated sequence of three pulses.

Almost all of the characteristic rhythms of the Cuban music developed from the Haitian *voodoo* Yanvalou *segon* drum time line. The main rhythmic sequence that originated from this time line, the hemiola (3+3+2+2+2) in 6/8 meter, was the basis for the development of the Tresillo, the Habanera, and the characteristic syncopation in binary meter by Saumell.

The sequence of 3+3+2+2+2 pulses was included in the 6/8 meter compositions by Saumell that were analyzed. This sequence is included in 70% of the measures in his compositions in 6/8 meter. Saumell used the same rhythms of his 6/8 meter Contradances in his Contradances in 2/4 meter. This transfer to the 2/4 Contradances occurs in two ways:

1. The hemiola, and the characteristic syncopation patterns developed from the whole rhythmic sequence of 3+3+2+2+2 pulses; and
2. The Tresillo, and the Habanera rhythmic patterns developed from the rhythmic sequence of 3+2 pulses (the last pulses of the original Yanvalou *segon* time line).

There is a period of transition (as seen in the Saumell composition *La Nina Bonita*), until the appearance of the original rhythmic pattern of the Tresillo, and the Habanera. This transition occurs with the rhythmic transformation of the common pattern of 3+2 (triplet plus two eighth-notes in 2/4 meter) used by Saumell, in the bass

line. In the same composition (*La Nina Bonita*), Saumell uses different rhythmic variations with this pattern. He includes in these variations, the traditional Tresillo and the Habanera rhythmic pattern (traditional design) to indicate the same rhythm of 5 pulses (Figure 61, section three). These rhythmic variations are used by Saumell to transform the 5 pulses into 8 pulses (3+3+2). In the same composition (*La Nina Bonita*, measure 22), Saumell includes the original Habanera rhythmic pattern in the bass line and the characteristic syncopation in the melodic line. In this moment, Saumell structures the 8 sixteenth-notes (3+3+2 pulses) of the compositions in 2/4 meter. In this measure, both lines include a subdivision of four sixteenth-notes in each beat, different from the other measures in which the subdivisions are perceived as an alternating of three pulses and two pulses (as a triplet in the first beat and two eighth-notes in the second beat).

The Habanera and the Tresillo are the main rhythmic patterns found in the bass line of the compositions by Saumell in 2/4 meter. They are included in 50% of the measures of the compositions analyzed. The Tresillo appears in 24% of the measures, and the Habanera appears in 26% of the measures of the compositions by Saumell.

In Cuban compositions by Saumell, the characteristic syncopation pattern was developed through the adaptation of the *segon* drum time line from the Haitian *voodoo* Yanvalou dance of twelve pulses. The characteristic syncopation does not appear in this time line when transformed into traditional notation. The rhythmic sequence of 2+3+3+2+2 (the same Haitian sequence, with a change in the order of the pulses) was employed by Saumell in the 6/8 Contradances. In these Contradances, Saumell changed the accents of the ternary pulses and transferred the resulting rhythm to 2/4 meter compositions. The characteristic syncopation pattern emerged from this adaptation

process, when the repeated ternary sequence, already differently accentuated, was transferred to the binary meter compositions (Figure 61, section two). Two phases of the development of the characteristic syncopation pattern are evident in the Contradances by Saumell. First, the characteristic syncopation is found occupying a whole measure and, at this point, appears with the same rhythmic design of the *segon* time line (2+3+3+2). Second, the characteristic syncopation pattern was changed to one beat of the measure. In this placement it maintained its position between binary pulses, which is the same sequence included in the original *segon* time line. This design with the characteristic syncopation pattern between binary pulses, forming a musical phrase of two measures, is the hallmark of compositions by Cervantes in the later style (Habanera).

The Cinquillo is found in the Petwo *boula* time line and in the Juba *shell* time line. This pattern is found more frequently in the melodic line of the compositions by Saumell that were analyzed. This pattern is included in 10% of the measures of the melody and 1.9% of the measures in the bass line of the compositions by Saumell.

The rhythmic variation of the Cinquillo is included in the West African seven-stroke version, when transformed into traditional notation. The Cinquillo variation was not found by this researcher in the selected compositions by Saumell.

The compositions by Cervantes represent a second phase of the Cuban music evolution. The rhythmic patterns in the compositions by Cervantes are in the Contradances by Saumell in 2/4 meter. The most characteristic rhythmic sequence included in the compositions by Cervantes is the Cycle A, which comprises the characteristic syncopation between binary beats. This Cycle appears in 85% of the measures (melodic line and bass line) of the compositions by Cervantes.

Cervantes includes a more elaborated rhythmic design than Saumell. His use of the characteristic syncopation is his trademark. His rhythmic phrases are cyclical (as in an African time line). The Cycle A in the compositions by Cervantes always begins in binary pulses (beat or offbeat as an anacrusic phrase). Consequently the characteristic syncopation is always included in the first beat of the measure after the binary pulse. Cycle A is seen in both lines (65% in the top line and 20% in the bass line). Cervantes uses the alternating of Cycle A in both lines to create a polyphony. When the characteristic syncopation appears without the binary pulses before and after it, this rhythm is imitating the melodic line.

Another common characteristic in the compositions by Cervantes is the presence of the Habanera rhythmic pattern and the Tresillo pattern in the bass line. These patterns are included in 43% of the measures of his compositions. The Habanera and the Tresillo are almost always included in the bass line. Forty- two percent of the measures of the compositions by Cervantes includes the Habanera and Tresillo in the bass line. Only 0.7% of the measures of the compositions by Cervantes include the Habanera rhythmic pattern and the Tresillo in the melodic line.

The Cinquillo is not an expressive characteristic in the compositions by Cervantes. Only 5% of the measures in his compositions include this rhythmic pattern. The "Cinquillo variation," a rhythmic sequence from Pewto and Juba dances is included in the compositions by Cervantes. This rhythmic pattern is the mixture of the characteristic syncopation followed by a rhythmic variant of the two binary pulses, with a tie between both beats. This researcher classified this rhythmic sequence as a rhythmic variation of the Cycle A in the Cuban music analysis. This pattern is included in 10

measures of the 256 total measures of the eight compositions analyzed (4%). The remaining 32% of the measures within compositions by Cervantes are structured in the common rhythmic patterns of two eighth-notes and its binary variations.

North American Music Ragtime

This researcher compared the time lines (West African, Angola/Zaire, and Haitian) and identified that the *maman* drum time line from the Haitian *voodoo* Yanvalou dance is the only time line that includes the complete Tresillo pattern plus the characteristic syncopation when transformed into traditional notation. The same way, the *shell* time line from Haitian Juba dance is the only time line that includes the Cinquillo plus the characteristic syncopation pattern, both rhythmic characteristics found in the compositions by Joplin.

These two time lines, when transformed into the traditional notation, include the exact rhythmic sequences most often included in the American Ragtime by Joplin. This researcher identified that the syncopated rhythms of the American Ragtime developed from *maman* time line (from Haitian Yanvalou dance) and *shell* time lines (from Haitian Juba dance). The following is a description of the identified connections between the time lines (*maman* and *shell*) and the American Ragtime rhythmic cycles in this research.

1. The rhythms in the melody of the Ragtime follow the exact rhythmic patterns classified in Cycles A, A1, B, B1, and AB. These rhythmic sequences are included in different percentiles within the compositions;

2. The most characteristic rhythmic sequence in Ragtime is Cycle A1 (false Tresillo). It is included in 25% of the measures of the analyzed compositions. As seen in Figure 63, all rhythmic variations of this sequence, always structured in 8 sixteenth-notes, include a tie between beats. The original design of the Tresillo is not included in the Ragtime compositions by Joplin;
3. The second most common rhythmic sequence in the Ragtime compositions by Joplin was Cycle AB (one binary pulse plus the characteristic syncopation). This cycle is included in 14% of the measures of the analyzed compositions.
4. Cycle B1, composed of the Cinquillo or false Cinquillo, is included in 7% of the measures of the analyzed compositions;
5. The Cinquillo pattern is included in 7% of the measures in the Ragtime compositions by Joplin. Among the selected Ragtime composition analyzed, the presence of the Cinquillo is most expressive in *The Cascades*. In this work, Joplin used eight sequences of the Cinquillo in one section;
6. The characteristic syncopation rarely appears twice in the same measure;
7. The compositions written by Joplin, after 1902, include more rhythmic variations. The variations occur mainly in Cycle A1, in the false Tresillo rhythmic pattern. In this case, the common accent on the fourth sixteenth-note is transferred to the third sixteenth-note. A few rhythmic variants occur within other cycles, in which the characteristic syncopation is included. In this case, there is a mixture between this pattern and the Cinquillo;
8. Considering that the Ragtime style includes syncopated rhythmic patterns only in the melodic line, Joplin used syncopated rhythmic sequences in 61% of the measures in

his compositions, that were analyzed. The remaining 39% of measures, are composed in their majority, with common binary rhythms. These measures are rarely structured by other rhythmic syncopated variations, not described in this section; and

9. The main characteristic of the Ragtime style is the accentuation of each third pulse. This accentuation occurs in a short rhythmic sequence and in a long rhythmic sequence. This accentuation is seen in the *maman* and in *shell* time lines, however, there is no indication in the score regarding this syncopation in each three pulses of the composition, when the rhythmic sequence follows the Yanvalou pulses. The score also does not include reference of accents in the rhythms related to the Juba *shell* time line. In this case, when Cycle B appears (Cinquillo plus the characteristic syncopation) it is essential to feel the first pulse and the third pulse of the ternary sequence, because they have different accents. As in African dance and music, the first pulse of one ternary rhythmic structure, includes different accents than the third pulse of the sequence. The Ragtime style is constructed in its majority by false rhythms (Appendix B). This means that the ties between beats are an indicative signal to produce the syncopation.

Conclusions

This study was conducted to identify connections between West African rhythms and Haitian rhythms on the development of syncopation in musical compositions. Based on the findings in this research, it may be concluded that:

The Haitian *voodoo* music seems to be the rhythmic foundation of the Ragtime compositions by Joplin. The rhythmic sequence of the Tresillo plus the characteristic syncopation pattern (that corresponds to an accentuation of each third pulse) is included in the Yanvalou *maman* drum time line. Among the time lines analyzed, the Yanvalou *maman* drum rhythms is the only time line that includes this rhythmic sequence when transformed into traditional notation. In the same way, the rhythmic sequence of the Cinquillo plus characteristic syncopation, another common feature found in the compositions by Joplin, is included in the *shell* time line from Haitian *voodoo* Juba dance.

The characteristic syncopation pattern seems to have developed in Cuba, the United States, and Brazil through distinct origins: Brazil from Angola/Zaire tribes, and Cuba and the United States from Yoruba/Dahomean tribes.

The appearance of the characteristic syncopation pattern in the popular music styles studied in this research occurred at different times during the Colonial Period in the three countries. The Brazilian characteristic syncopation pattern appears in compositions from the Eighteenth Century. The Cuban characteristic syncopation pattern appears in compositions approximately in the 1850's, and the North American characteristic syncopation pattern appears in compositions in the 1890's.

The Afro-American characteristic syncopation pattern serves different functions in the musical context of each style. In the Cuban Habanera and North American Ragtime styles, the characteristic syncopation has a melodic function. In such styles, this pattern creates the rhythmic structure of the melody. When the characteristic syncopation appears in the bass line, it is an imitation of the same rhythm in the melody. In Cuban

music, this pattern in the bass line also appears as an imitation of the whole melodic sequence forming a second voice. In Brazilian music, the characteristic syncopation pattern presents both melodic and rhythmic (in the bass) functions. The melodic line is characterized by repeated sequences of this pattern or by the characteristic syncopation pattern after the Habanera rhythmic element. The bass line includes the same pattern of the characteristic syncopation plus two eighth-notes, as a regular rhythmic design of the accompaniment.

The development of the characteristic syncopation pattern seems to have developed in Brazil and the United States through a direct process from African time lines. The development of the characteristic syncopation pattern appears to have developed in Cuba indirectly from African time lines. In Brazil, the development of the characteristic syncopation pattern seems to have occurred as a natural process of the transference of the African Angola/Zaire time line directly to binary meter. The same way, in the United States, the pattern appears to have developed through a natural process of transference, with a difference in the time lines transferred – in this case, the Haitian time lines. The characteristic syncopation pattern in Cuban popular music seems to be a result of an adaptation process of the Yanvalou *segon* time line in the development of this rhythmic structure.

The delay factor, a rhythmic irregularity in the performance of the internal duration of the syncopated patterns, seems to have developed in Brazilian popular music and in the Afro-Brazilian traditions. This Delay Factor appears to come from the African fusion of two and three pulses existing in the structure of the rhythmic Brazilian

sequences and from the fusion of the same rhythmic sequences included in both lines. The continuous repetition of the 3 and 2 pulses, hidden in the syncopated rhythmic sequences, results in an imbalance of the regularity of the beats of the binary pulse.

The musical result of the double syncopation (repeated sequences of the characteristic syncopation pattern and the syncopation in melodic line and bass line simultaneously) seems to be a main rhythmic sequence that exists in Brazilian popular music. This results in a rhythmic sequence that is distinctive in Brazilian popular music.

The rhythmic patterns of the second phase of the Brazilian Samba seems to be included in the West-African twelve-pulse standard pattern (five-stroke version) time line, when transformed into traditional notation.

The Brazilian characteristic syncopation pattern appears to be an African rhythmic element that survived in the music of the New World. This rhythmic structure seems to be the only pattern that maintained, in its binary form, the common mixture of 2 pulses and 3 pulses from the African music language. While the Cuban and North American characteristic syncopation pattern seems to have developed from a ternary pulse sequence (*maman/shell* time lines – 3+3+3 in the United States, and *segón* time line – 3+3 in Cuba), the Brazilian characteristic syncopation seems to have developed from a mixture of three and two pulses (3+2+2+3 or 3+2+3). When the characteristic syncopation pattern appears in Brazilian music, with the format of the repeated sequences, it seems to be related to the Angolan seven-stroke version time line (3+2+2+3 pulses). When it appears after the Habanera rhythmic element, the characteristic syncopation seems to be related to the West African time line (3+2+3 pulses).

The Cinquillo seems to have originated from Haitian *voodoo* music. This pattern is included in *boula* time line from Petwo dance and in *shell* time line from Juba dance. The "Cinquillo variation" appears to have originated from a West-African time line seven stroke-version.

The African Habanera dance seems to have emerged simultaneously in the countries of Latin American. The presence of this rhythmic African element in the Brazilian Modinhas from the Eighteenth Century is an indication of the simultaneous appearance of the Habanera rhythm in Brazil, not only in Cuba as has been typically defined in the research.

The Habanera rhythmic pattern (dotted eighth-note and one sixteenth-note plus two eighth-notes) seems to be an adaptation of African rhythms in European meter. Among the Afro-rhythms developed in the New World (characteristic syncopation, Habanera rhythmic pattern, Tresillo, and Cinquillo,) the Habanera rhythmic pattern is the only pattern that is not included in the African Haitian time lines when transformed in traditional notation.

The arrival of the Haitian music and people in Cuba and the United States appears to be a revitalization of African music in these countries and a vehicle for the development of the syncopated rhythms. The Haitian music seems to be a foundation for the development of the characteristic syncopation pattern, the Tresillo, and the Cinquillo rhythmic patterns in these countries.

Recommendations

Researchers contribute to the body of scholarly information with their insight, experience, and curiosity. This researcher offers the following recommendations to others interested in continuing this research or pursuing similar research topics.

Several studies exist regarding the music from individual countries (Brazil, Cuba, and the United States). This researcher encourages others to investigate connections among music from several countries. Further analyses of the African and Haitian time lines identified in this research may result in a greater understanding of the evolution of popular music styles. Moreover, further analysis of the African and Haitian time lines with additional styles of music (beyond those investigated in this research) may result in a greater understanding of connections among music in different countries.

This researcher recommends a continuation of the study of the Anonymous Modinhas (MS. 1596). Specifically, a study of these Modinhas compared to the music of Bahia, Brazil (a state within Brazil that was the location of an African slave colony with a great number of Yoruba African tribes – and continues to include an Afro-Brazilian culture and population).

Connections among popular music styles exist within countries and throughout the world. This researcher recommends that others continue to construct research studies to identify connections and influences from a world music perspective. After all, researchers, students, and scholars benefit when more is learned regarding the music from the world in which we live.

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