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An original composition, La Cosecha for orchestra, and La Clave: a cultural identity

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AN ORIGINAL COMPOSITION, LA COSECHA FOR ORCHESTRA,  
AND  
LA CLAVE: A CULTURAL IDENTITY 

A Dissertation 

Submitted to the Graduate Faculty of the 
Louisiana State University and 
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Doctor of Philosophy 

in 

The School of Music 

by 

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INSTRUMENTATION

Piccolo
2 Flutes
2 Oboes
2 Bb clarinets (Cl. 2 doubles Clarinet in Eb)
Bass Clarinet
2 Bassoons
Contrabassoon
4 Horns in F
3 Trumpets in C
Bass Trombone
Tuba
Timpani
Percussion 1

(Glockenspiel, Bongos, Maracas, Tom-toms, Crotales in C, and Eb)
Percussion 2

(Xylophone, Maracas, Woodblocks, Slaptick, Timbales)
Percussion 3

(Marimba, Claves, Temple-Blocks, Slaptick, Cowbell, Crotal in B)
Percussion 4

(Vibraphone, Güiro, Bass Drum, Snare Drum, Suspended Cymbal)

Violin I
Violin II
Viola
Violoncello
Doublebass

Score in C
ABSTRACT

The dissertation is in two parts. The first part is a musical composition in one movement for orchestra, *La Cosecha* (The Harvest), based on the Maya Zodiac. The second part is a semiotic analysis of selected Puerto Rican folk music that will conclude that a rhythmic structure organizes all these musical forms in a coherent manner.

The composition has thirteen sections each representing a figure of the zodiac. Each figure has a main rhythmic pattern and a chord that it is rotated to create unity among the distinctive chords. The first half represents the dry season and the second the wet season.

The purpose of the essay is to show that the most important factor that unifies Puerto Rican folk music is rhythm. I am referring to the musical and dance forms that have become the most known genres in Puerto Rico and the Puerto Rican Diaspora\(^1\). These forms are: *bomba*, *aguinaldo*, *seis*, *guaracha*, *danza*, and *plena*. I will define each musical form, relate it to its original social stratum, how its original social stratum changed and how each form functions in today’s Puerto Rican society.

These musical forms are united by phrases containing rhythmic figures derived from the ♩♩♩♩ mother cell. This creates a rhythmic structure that unifies all the pieces through a common meter. Also, groups of rhythmic figures are joined by the rotation technique, each group shares common numeric values (e.g., 3+1+2+2, 1+2+2+3, 2+2+3+1, and 2+3+1+2). Groups are expanded by permutation (3+2+1+2, and 3+2+2+1).

\(^1\) Puerto Ricans living abroad (e.g., New York city, Orlando, Santo Domingo, Paris, etc).
When all possible permutations are exhausted, sections are formed. Each section shares the same numeric values in distinctive order.

Although some of these forms utilize both simple and compound meters (like bomba), only music transcriptions that utilize simple meter (2/4, 3/4) will be presented. This is important because the 3+3+2 pattern can be extended by adding two eighth notes or four eighth notes. The important aspect is that the pulse is divided by two.

The title of the monograph is *La Clave: A Cultural Identity*. This title was selected because the paper will show a cultural identification of Puerto Ricans with the rhythmic figures derived from the mother cell that appear in the rotation table. I will explore the semiotic aspects of the rhythmic figures as experienced in the melodic lines of selected works. Puerto Ricans identify themselves with this musical “language” by listening to different genres, all containing the mother cell.
PART 1: AN ORIGINAL COMPOSITION, LA COSECHA FOR ORCHESTRA
LA COSECHA
(The Harvest)
slowly scrape the güiro in this section
*That includes change of timbre, extending or shortening the rhythmic figures, accelerando, heterophonic technique, and so on.
As with the Bongos, this includes change of timbre, extending or shortening the rhythmic figures, accelerando, heterophonic technique, and so on.
No natural text can be extracted from this musical score image.
slowly scrape the güiro in this section
PART 2: LA CLAVE: A CULTURAL IDENTITY
CHAPTER 1. HISTORICAL ANALYSIS

1.1 Preface

During Puerto Rico’s long history, each social stratum developed musical forms that represented its social, economic, and religious condition. When social conditions began to change the function of these musical forms dissipated. The rise of a Puerto Rican society united in a common aspiration toward a healthier social and economic life created a filter that fomented the acceptance of musical forms that had a meaning for all Puerto Ricans. The word filter is used as analogy to mean the selection (filtering) of forms that relate to all Puerto Ricans instead of a distinctive social stratum.

Where once each musical form pertained to a distinctive social stratum the selected ones now pertain to all. These are bomba, aguinaldo, seis, danza, and plena. There is a Puerto Rican guaracha but this will be discussed later. All of these are dance forms except the aguinaldo, which is seldom danced. Other forms were not selected. Some of these were mariandá, candungué, (representing black music); cabayo, cadenas (country music); and lanceros, and rigodón, (landowner music).

Salsa represents a similar case (micro-macro filter) in the sense that the previously mentioned musical forms appealed to distinctive social strata that later became the music of all Puerto Ricans. In this way, many musical forms from Caribbean region, each with its own social and historical process, make up salsa which appeals to all the Latino community.

1.2 Historical Analysis

Bomba, also the name of a drum, is a Puerto Rican dance genre spread throughout the island. There still exist many extant bomba styles, differentiated by rhythm,
choreography, and melody. There are also differences in the construction of instruments (Dufrasne González, 1994: 3), in genre, and even in the placement of the drums.

The north and south display a variety of styles, called seises de bomba and sones de bomba respectively. In the former the most performed are sicá, yubá, holandé; in the latter leró, güembé are the most performed, while others like belén are played occasionally (Dufrasne González, 1994: 13).

This musical expression utilizes two drums. The low-pitched drum, called buleador, performs a cyclic rhythm figure, and the high-pitched drum, called primo, (first) improvises upon the dancer’s movements. The female and male dancers challenge the drum with body movements related to gender. “Whereas men’s movements tend to accentuate the lower half of the body (legs and feet), women’s movements tend to display the upper half to a greater degree (torso, shoulders, and skirt movements using the hands)” (Barton, 1995: 107). The drummer is expected to answer these movements at the same time creating a dialogue that is the essence of this musical form.

*Bomba* was brought to Puerto Rico by slaves during the Atlantic slave trade that forced Africans to work on the Spanish-owned sugar plantations. Because the social conditions of these Africans had changed, in the process, the meaning of their music also changed. The dancing in Africa was to pray to the gods, or to have a good hunt, win a war, or enjoy a plentiful harvest, but in Puerto Rico dancing was also used to plan escapes from captivity. A book dealing with this issue has an excellent paragraph on this subject. The author mentions the planning in Ponce (Puerto Rico’s second most important city) of the slave revolt of July 1826:

The uprising was to have begun on the 10th of July, when the slaves asked their owner Overman to grant permission to celebrate a bomba dance, as it was the custom on Sundays and holidays. The dance and drum created a sense of cohesion in the slave population. Without a doubt, the dance was only a diversion to

Oppression forced the slaves to use bomba as a cover for planning insurrection. The desire for freedom created a new set of conditions that previously did not exist.

After the abolition of slavery in 1873, the vanishing environment of the former slaves began to affect their culture, and the bomba began to decay. This was caused by modernization and the mixing of races. In the 1950s, the bandleader Rafael Cortijo formed a musical group, Cortijo y su Combo, with Ismael Rivera as the principal singer. The used of bomba by the band place it in the foreground, making bomba accessible to a new generation. This group appealed to a broader audience instead of a single social class. They played in Puerto Rico, in the Puerto Rican community in New York City, in Venezuela, and in other countries.

This brought about the revival of the bomba, but this time it was a revival for many Puerto Ricans. Nowadays many people express their musical ideas through bomba: folk groups, Puerto Rican singers of commercial music (e.g., Ricky Martin), contemporary composers of classical music, scholars, and exercises based on many types of choreographies, etc. There is even a national day of bomba celebrated on the last Saturday of March (slavery was abolished on March 22, 1873) that includes bomba groups, traditional food, artisans’ kiosks, and a bomba dance competition in pairs displaying the traditional wardrobe (Torres Torres, 2001).

Reasons for the revival of bomba include nationalism and secularization. Previous generations rejected, prohibited or ignored bomba because it was associated with the music of Blacks or with rebellion. With the encouragement of the local government a musical consciousness started to take place in the 1950s and many began to proudly
embrace bomba as a testimony of what it meant to be Puerto Rican. Secularization of bomba was the result of this gesture by the government.

Aguinaldo and seis are Puerto Rican musical genres of the jíbaros (country people) who live in the mountains. As with bomba, each genre has many versions (aguinaldo orocoveño, aguinaldo cagüeño, aguinaldo jíbaro, or seis mariandá, seis fajardeño, seis mapeyé). All forms of aguinaldo are improvised in décimillas (ten six-syllable lines) or coplas (four or eight six-syllable lines), the seis in décimas (ten eight-syllable lines). The person who improvised in these meters was called a trovador (trobadour)- an oral poet of the people.

The aguinaldo1 originated in the Spanish villancico:

[Villancico]… was a term used in Spain to define the songs of the villanos or people from villages at different times of the year. [In Puerto Rican Nativity aguinaldo is used] . . . to carry music in parrandas [revel] and . . . . to solicit divine protection to the community’s members through Christmas promises that are offered to the three kings, Virgin Mary, or Baby Jesus [my translation] (Álvarez, 2001: 14).

James McCoy concluded that the aguinaldo was strongly influenced by the bomba:

While the African influence is not so strongly felt in the aguinaldo as in the bomba . . . . it is nevertheless significant. The driving unrelenting strong rhythmic impulse found in the extant aguinaldo does not originate in Spain nor Arabia, but instead in the music brought by the slaves from Africa (McCoy, 1968: 82).

The seises (sing. seis, [six]) were groups of choirboys that usually had six children for every group. They sang chanzonetas or villancicos in Spanish (castellano) at the Corpus Christi, Nativity, Three Kings’ Day and other types of extra-liturgical celebrations in Spain, these sometimes also involved dancing (López-Caló, 1963: 252-257).

Both forms are tied together by religious devotion:

During a celebration, the isolated neighbors got together in front of the hut of the family host. Together they sung the greeting or aguinaldo and the host invited them to come in. In the hut, as in a temple, in front

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1 The word aguinaldo comes from the Celtic term Iguinand that means a gift of the New Year. (Rosa-Nieves, 1955: 98).
of the saint, as at an altar, they would dance the seis; never to be played or danced outside [my translation] (Quintero Rivera, 1998: 239).

The seis also received influences from the bomba, but the aguinaldo and seis are sung in the European tradition of the troubadour and neither form exhibits the call-and-response characteristics of the bomba. It is not easy to discern Moorish influences on these jíbaro’s musical expressions but they are there, hidden, camouflaged, through religion (Quintero Rivera, 1998: 240-247).

Ecclesiastical authorities, realizing this, prohibited the dancing of the seis in the Cathedral of San Juan:

During the Corpus Christi celebrations in Puerto Rico, the custom originally from Seville, where it is still is practice by children from the chorus who are called seises, who upon appearing at the cathedral at the time of vespers, a group of free mulatos (mulattos) would begin dancing several dances without taking their hat off while the holy sacrament was exposed. In 1684 the Bishop Fray Francisco de Padilla expelled the dancers to the street and although there were complaints, dancing in the church was suppressed [my translation] (Brau, 1966: 158).

In 1691 the same bishop describes a dance with African influences in the Cathedral of San Juan:

The dance of the seises ended. The father proceeded until the recitation of the Ite missa est. . . . Then two men dressed in black they occupied the base of the altar with two guitars, substituting for the harpist. The carpet was occupied by six maidens broncíneas [bronzed] around fifteen years old, dressed with white gauzes, with wreaths of flowers and panderetas2 in the right hand. . . . The mulattas commenced to dance to the music of the guitars; their movements were correct but with a voluptuous and sensual air that infiltrated the senses of the multitude… This is moruno. . . . [Moorish] and with something of Africa, as well, because of the drum that accompanied the guitar and flute [my translation] (Coll y Toste, 1968: 167).

Jíbaro music began to lose its function in the 1920s due to modernization and the loss of of religious fervor. The expansion of Protestant churches, the displacement of neighborhoods, the lack of interest by the government; all created a void that never could be filled. As with bomba, when the stratum of society that gave birth to aguinaldo and seis ceased to exist, the music also declined. In the 1950s, the government became in promoting jíbaro music to all Puerto Ricans. This was done through the Instituto de

2 The pandereta is a round frame drum, like a tambourine but without jingles.
Cultura Puertorriqueña (ICP, Institute of Puerto Rican Culture). Its program encourages public schools to teach students these musical forms with their traditional instruments: voice- improvised décimas, cuatro (a lute-like instrument of five double-string courses that plays an improvised obbligato against the voice) (Quintero Rivera, 1998: 248), bordónía (a large six-string guitar, although now the guitar is the one used to play the harmonic progressions), and güiro (scraped gourd that improvises occasionally).

The ICP also sponsors folk music concerts free of charge for public entertainment. Usually a speaker may address the audience to give information about the performers and music; thus music is improvised and the performer becomes a teacher. After the concert the audience and the performers usually meet to speak about music and the concert program.

Such events, along with the modernization program of the government, encouraged the growth of new variants of traditional jíbaro music. Aguinaldo urbano (urban aguinaldo) is one of those:

Many melodies of the country aguinaldo transfer to the urban communities but without retaining their distinctive names: aguinaldo jíbaro or aguinaldo caguieño, etc. . . . The general characteristic of the aguinaldo urbano is a couplet sung by a chorus alternating with couplets that soloists sing [similar to bomba] [my translation] (Álvarez, 2001: 16).

Gender roles have also been altered by social changes. Women troubadours, like Lenny Jeannette, have become more common in the Puerto Rican musical environment. In a newspaper interview, she promotes her CD Un poco de mí (A little of myself). Her CD includes aguinaldo “Diálogo con mi Abuelo” (Dialogue with my Grandfather), décima “Himno de Soltera” (Unmarried Woman’s Hymn), and a seis “Sangre de Corazón” (Blood of the Heart).

She then narrates how a relative wrote her a décima and sung it very well. She receivied encouragement to continue performing jíbaro music and began to compete in
contests and festivals winning the 2001 championship of the Concurso de Trovadores \textit{Bacardí} (Bacardí Troubadours’ Contest), prevailing over more than twenty male experts in improvisation (Tirado, 2001).

Yezenia Cruz is another women troubadour. Raised in Connecticut until she was nine years old, she speaks about her experience in this field to a reporter:

If you are women many doors are closed in this genre. This genre is difficult, very \textit{machista} and commercially speaking, we have not achieved our best. I have felt excluded from activities for being a woman, but by the same token I have been supported by many people [my translation] (Tirado, 2001).

As with \textit{bomba}, the survival of these forms depended on adaptation to the social changes that Puerto Rico faced during the first decades of the 20\textsuperscript{th} century. The acceptance by Puerto Ricans of all clases of the \textit{aguinaldo} and \textit{seis} have saved these from extinction. Today, the \textit{aguinaldo} is most commonly sung at Christmas time. The \textit{seis} is performed to improvise creative and spontaneous verses and to impress the audience with the troubadour’s abilities. Another consequence of these social changes has been the proliferation of new musical variants and transformations in gender roles.

The \textit{guaracha} has had a great acceptance among all the social strata of Puerto Rico since the 1830s, when it was brought by theater companies from Cuba, especially by the \textit{bufos cubanos} (light theater) companies that also introduced other musical forms (Glasser, 1995: 22-23). With its melodies in the popular style,\textsuperscript{3} rhythmic vitality, harmonic freedom, and festive mood the \textit{guaracha} was adopted by the Puerto Ricans and a new musical form was added to the island tradition.

Even more significant than these characteristics was the fact that the \textit{guaracha} had a distinctive aspect among the Puerto Rican musical forms: individualism. It was originally sung by one person or a duet; it was generally accompanied by a single guitar;

\textsuperscript{3} Short symmetrical phrases of one or two measures without rhymes.
the text was in prose (usually with a verse of four lines); and it was danced by one person in the theater (López Cruz, 1967: 99). These characteristics gave the *guaracha* a boundless musical form without any attachment to a particular social stratum, thus permitting a connection between the *guaracha* and traditional forms. The influence of *guaracha* can be found in *aguinaldos* (Álvarez, 2001: 14), *seises* (Álvarez, 1992: 41), *baquiné* (wake for an infant), *rosario cantao* (sung rosary to the Holy Cross, usually performed in May), Christmas music, children’s songs (López Cruz, 1968: 99-100), and the Puerto Rican *danza*.

In the *guaracha*, Puerto Rican characteristics can be found in the call-and-response structure, the use of the *seis*’ instrumentation, and in the dancing of soloists or pairs of dancers in distinctive social gatherings. Thus, the *guaracha* became part of Puerto Rican folklore.

During the second half of the 19th century the *hacendados* (landowners), in the region of the port city of Ponce, had commenced to become prosperous and not depend on San Juan, the seat of Spanish culture and power. Landowners wanted to show a national identity far from Spain, hence, a musical form that represented their way of life began to emerge (Quintero Rivera, 1998: 273). The Puerto Rican *danza* was the salon music of the *hacendados*. It could be played on the piano or by bands. It was always the custom to improvise only in the latter. The form of the *danza* consisted of a *paseo* or introduction followed by a binary or ternary structure with a polyphonic texture (*seis*). It was danced in the ballrooms of the rich and powerful as well as in public dance halls. A

---

4 The *paseo*, a stately processional, gives time for each couple to arrive at the dance floor before the danceable part begins. The binary section has two distinctive themes in different, although related keys (e.g., Bb major and F major as in “El Coquí”). The ternary section has three distinctive themes, usually in the tonic, dominant, and parallel mode (e.g., Eb minor, Bb major, and Eb major).
common instrumentation consisted of one or four violins, two clarinets, two bombardinos (ophicleides), a double bass, a timbalito\(^5\) and a scraped güiro (Quintero Rivera, 1998: 289).

Musicians from different corners of Puerto Rico moved to Ponce to earn a livelihood. Most of these were blacks, pardos (mixed race), and jíbaros (country people or Creoles) who wanted to be respected as artisans and full citizens. Many of them composed and performed danzas. The upper class began to notice their appeal to the public and adopted it as a symbol for their new national identity while the musicians earned their respect and approval. The danza had elegance, (read “whitened”) grace, and originality, although it also had African influences -from the bomba to the aguinaldo to the seis to the danza (Quintero Rivera, 1998: 284-287).

After the Spanish-American War in 1898, Puerto Rico became a territory of the United States. The U.S. took over the economy as the hacendados began to lose power; the danza, which represented the interests of the hacendados, lost its function (Quintero Rivera, 1998: 298).

In the 1950s, the ICP, in its efforts to promote Puerto Rican music, created a competition of danzas for piano; a jury would select three finalists to be performed in a concert with other known danzas. This competition failed to revive the danza, but in the 1970s a new generation of musicians transformed the archaic tradition of the danza into the socially-oriented canción-danza (song-danza). Its form is song-like, without modulation, with the rhythmic figure of the Puerto Rican danza. The new danza is danced, not listened to in a concert; it has a new timbre, played by an orchestra with ballad-like instrumentation, and the text is about current issues: love, patriotism, and

\(^5\) Smaller timbales with a higher pitch mostly performed in solo sections.
hope. In its new form the *danza* attained great popularity.

The Puerto Rican *danza* was almost consigned to oblivion because, as with the previously mentioned forms, there was no social purpose for its existence. The *canción-danza* (song-danza) was the result of a new social significance that could undo generations of stagnation and find people willing to listen to a new message.

*Plena* is a call-and-response Puerto Rican dance originating in Ponce around the 1900s. It is played by three *panderos*, each one playing with a *pandereta* of different sizes. The two *panderetas* with the lowest timbre play a resultant cyclic rhythmic pattern while the highest in timbre improvises. The *plena* was probably played, in its original settings, during the full moon (*luna plena*), hence, its name (López Cruz, 1967: 67).

This musical form emerged, as the other musical forms did, by social changes:

The first two decades of the century, when plena was evolving from its earliest traces and disparate components into a distinct, coherent form, saw the gravitation of all sectors of the Puerto Rican working population—former slaves, peasants, and artisans—toward conditions of wage labor, primarily in large-scale agricultural production set up along capitalist lines. More and more workers, formerly inhabiting worlds separated by place and occupation, came into direct association, both at the workplace and in their neighborhoods; their life experience and social interests were converging and assumed organized articulation with the founding of unions, labor federations and political parties (Aparicio, 1998: 29).

The text of the plena is sociohistorical, an oral newspaper about current situations in everyday life. In her book, Ruth Glasser describes this characteristic:

[The *plena*] was an unsentimental form whose verses contained explicit social critiques issuing from the lower classes. In terms of its forms, social roles, and repression by authorities, the *plena* was similar to topical and satirical genres from other parts of the Caribbean, including the Cuban *son*, the Dominican *merengue*, and the *calypso* of Trinidad. Like its Caribbean cousins, the *plena* lampooned people of wealth and position, criticized government policies, and satirized powerful institutions (Glasser, 1995: 175).

Some titles of *plena* are “El Temporal” (The Storm), “Submarino Alemán” (German Submarine), and “Tanta Vanidad” (Such Vanity).

Unlike the previously discussed musical forms, the *plena* continues to be an important commentator about social issues of Puerto Rico. In the late 1920s and 1930s, the *plena* became very popular through recordings in New York and later in the rest of
the Spanish-speaking countries. It achieved what no other Puerto Rican musical form had done before, to be known throughout the hemisphere.

This form began to decay by mid 1930s due to interests beyond the control of the listeners, composers, and performers of plena. Because of its nature, the Puerto Rican upper class did not like the plena and they discredit it by saying that it was música de negros (music of Blacks). They supported other Caribbean forms like the Cuban son, and even bribed musicians not to perform plena (Glasser, 1995: 186-190).

Another reason was:

The very conditions of Puerto Rican colonialism made the island’s music subordinate to the Latino forms promoted most heavily by U.S.-dominated music industry. As was the case in other industries, musical reception and distribution in Puerto Rico was shaped by North American government and corporate policies. In New York, cabarets theaters, and record companies were owned by non-Latino whites. . . . (Glasser, 1995: 187).

After its international fall, the plena continued to be functional mostly in small gatherings as in storytelling, politics, gossip, clubs, and not so small as in some protests.

In the 1990’s a popular group called Plena Libre (Free Plena) revived this form in the international arena by playing in Europe, North America, South America, and Caribbean. The group was nominated for a Latin Grammy in 2001. In 1999, the Puerto Rico Legislature gave homage to Plena Libre for their contribution to the dissemination of Puerto Rican music throughout the world. As Tomás Blanco said in his literary article Elogio de la Plena (Eulogy to the Plena), Plena, born “in the soul of the people,” is original, not like other forms limited to a particular class, “transplanted,” such as the danza (Blanco, 1935).

Salsa⁶ was developed in New York by Latinos (mostly Puerto Ricans using Cuban

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⁶ Salsa (gastronomy) means sauce which it is made up of many spices as salsa (music) is made up of many different musical forms from various Latin American and/or Caribbean countries. These forms are placed in diachronic and synchronic time (for more information see Berrios-Miranda, 2000: 54-65).
and Puerto Rican musical forms) in the late 1960s. “Salsa is not a particular rhythm or a musical form. It is rather “a way to make music” one of whose many principal characteristics is, precisely, its free combination of diverse rhythms and genres from the Caribbean” (Quintero Rivera, 1998: 88-89 [emphasis in the original]). Salsa can begin with an aguinaldo followed by a gaita (Venezuela) and then continue with a son. A composer can compose a salsa song emphasizing its roots by placing a musical form(s) from his country in the song. For example, a Dominican composer can substitute a son by a merengue. This Caribbean expression represents the unity of the numerous Latino-nationalities in New York City for a common cause: a search for justice and equality.

After the U.S. Congress granted U.S. citizenship to Puerto Ricans shortly before WWI, tens of thousands of Puerto Ricans migrated to New York to find work due to the lack of jobs on the island. This wave of migration constituted the Puerto Rican Diaspora (Singer, 1982: 38-60).

A significant number of Puerto Ricans felt the rejection of the U.S. establishment for being from a different background. As other Latino nationalities arrived in New York, they joined to stand firm against any prejudice towards them. Salsa is a cry of protest against the injustices and inequalities that they confront every day.

It is important to understand that salsa, although developed in New York, is sung in Spanish. “Spanish in salsa brings to the foreground issues of cultural authenticity, a concept that has been blacklisted by many cultural critics and scholars in favor of the transnational and multicultural aspects of culture productions” (Aparicio, 1998: 114).

Many salseros have to fight to be heard beyond their communities but the “industry” ignores their message preferring a “constructed meaning that is inevitably different from those of the inside community. . . . The colonizer also is highly complicit
in this process of social construction by attempting, from an outside location, to authenticate particular musical traditions, to give them validity, establishing them as true and genuine within the ideologies that can contain them” (Aparicio, 1998: 114).

In Puerto Rico, the indifference to salsa by the dominant sector has been quite common but after the 1980s salsa romántica (romantic salsa) has been well received. “These singers [Gilberto Santa Rosa, Luis Enrique] and their bourgeois epithets encapsulate a more recent salsa sound that is not as strident as the original New York style and whose arrangements, instrumentation and lyrics lend it a texture of soft, romantic music; thus is informally known as salsa romántica. While salsa musicians are becoming professionalized (read “whitened”), the musical repertoire shifts toward the individual, romantic relationship, thus diminishing the impact of its collective and political value. It is no coincidence, then, that official institutions are allowing it to be inscribed within the space of Puerto Rican official culture” (Aparicio, 1998: 73).

When a musical form becomes the voice of the oppressed, the oppressors are going to suppress it, as in the case of bomba. When a text that did not criticize the powerful appeared in a salsa song, it was accepted immediately by the upper class and recording studios.

Cultural changes in the emergence of a new Hispanic society in New York City created the social conditions for the development of a musical form that could express that society’s everyday life experiences. This social musical expression is the result of the contribution of each distinct community.

As was shown in the previously discussed genres, all of these forms represented new and distinctive societies. When they evolved sufficiently, transformations in their musical forms occurred. When the authorities persecuted these cultures, their musical
forms were also oppressed, ignored or criticized. These musical forms, during a period of time, lost their function (*bomba*), existed in a decorative state (*danza*) or were (or are being) marginalized (*salsa*). These genres came back to life when a society full of endeavors and hope for a better future embraced these musical forms; the signified\(^7\) was transformed in order that the signifier\(^8\) (Nattiez, 1999: 414) had a meaning to the Puerto Ricans.

More than a meter, the *clave* is an identity maker because it differentiates Caribbean music from other musics (Singer, 1982: 169). It “has remained central to the music through slavery, colonialism and migration . . . . (Singer, 1982: 14).” Musical forms have been altered; genres’ signified have been changed; new forms have been created; and social barriers have been broken but the *clave* 3+3+2 is still there, marking a cultural identity that glitters whenever it is performed.

Semiotic analysis is where these terminologies (signified and signifier) come from. Nicholas Cook defines this analytical tool as follows: “Semiotic analysis of music is intended as a branch of a general science called ‘semiology’—that is, the study of signs. (This means that semiotic analysts have closer links with fields of study outside music than do, say, Schenkerian analysts). But what does it mean to study music in terms of signs? One way, of course, would be to concentrate on what music means and the way in which musical structures embody or communicate meanings; but the whole business of musical meaning is so difficult to handle that in practice a different approach is required. This approach is rather like how linguistics analyze speech: first by deciding what the building-blocks of linguistic meaning are; and, second by investigating how these

\(^7\) The meaning of a musical form to a group of people (i.e. *canción-danza* is still performed today because Puerto Ricans find a meaning in this music).

\(^8\) A musical genre (e.g. Puerto Rican *danza*).
building-blocks are related to each other in any particular example of speech. In the same way, analyzing a piece of music semiotically means, first, chopping it up into units possessing some degree of significance within the piece; and, second, analyzing the way in which these are distributed throughout the piece, with a view to discovering the principles that govern this distribution . . . .” (Cook, 1987: 151).

I have chosen to present a semiotic analysis of Puerto Rican folkloric music because semiotics deals with signs, their meaning, and how these are communicated. Referring to his thesis about “the rhythmic law that governs Puerto Rican music” Luis Manuel Alvarez writes “This law establishes that a rhythmic order exists dominated by a rhythmic-musical syntax governed at the same time by some claves or rhythmic patterns of black-African origin… This law opens the doors to an understanding that the music of a culture functions like a language with a rhythmic, harmonic, and melodic ABC; and above all functions with syntactic laws that order the musical vocabulary of a nation [my translation] (Alvarez, 1992: 31).”

Music and language share common characteristics as well as differences. Both are organized into forms (e.g., essays, novels, sonata, concerto), and they can be segmented into discrete units. Unlike language, music has to be performed to exist and harmony is unique to music (Agawu, 1999: 141-146). While Alvarez mentions that “the music of a culture functions like a language” I believe that these rhythmic figures behave more like signs and as the music progresses a syntax (organization of the signs) is created leading to multiple meanings (semantics) that the Puerto Ricans can understand.

Then, the most important characteristic of semiotic analysis applied to this essay would be the comparison between folkloric musical pieces from Puerto Rico to determine
what parameters these share and to understand how these parameters are organized revealing their structure and meaning.
CHAPTER 2. SEMIOTIC ANALYSIS

2.1 Introduction to Semiotic Analysis

_Claves_ are created by grouping together distinctive values of 2, 3, and 4 sixteenth notes within a one or two measure unit to form cyclic rhythmic patterns. _Claves_ exist in many parts of the world. The metric pattern 2+2+3 that occurs in Bulgarian folk songs (Nettle, 1990: 90) is a _clave_ because it is performed as a cyclic rhythmic pattern. It is these patterns, and not the notated meter, that serve as the music’s true meter.

It is important to understand that the _claves_ act as a guide, not as an enforcer. The performers do not necessarily need to accent each beat or even to play it. What the _claves_ do is set their beats as the norm so that a good performance will always create a tension-relaxation environment by playing rhythmic figures derived from these. The persons familiar with this music will expect that of a performance.

The _clave_ 3+3+2 appears in many musical traditions of the circum-Caribbean including Petro (Petwo), a Vodou branch from Haiti, in which the _ogan_, a struck iron idiophone, plays the 3+3+2 pattern or/and rhythmic figures derived from it (Averill and Wilcken, 1998: 883).

From this _clave_, a three-set _clave_ can be formed by applying the rotation technique to an original—the first _clave_ or rhythmic figure of a set in which this is derived from. Exx. 1a, 1b, and 1c show these _claves_ written as one measure patterns of 2/4:

- Ex. 1a
- Ex. 1b
- Ex. 1c

3+3+2, 3+2+3, and 2+3+3. This technique is found throughout the music of the Caribbean (Fleuran, 1993: 50) and Africa (Locke, 1979: 342-349). The rotation technique
is also found in the church modes of Europe in which the *finalis* makes each scale distinctive. The *finalis* is the equivalent to the pulse.

By adding two eighth notes or four eighth notes to the *clave* 3+3+2 new claves with 3/4 and 2/4 meters are created as in Exx. 2, and 3a. The latter is known as *clave* 3-2, Ex. 2

Ex. 2

Ex. 3a

the most widespread *clave* in the Caribbean. It is performed in some musical genres such as the *son* and salsa (additional information on the *clave* 3-2 in Washburne, 1999: 73-98). The application of the rotation technique to these claves creates two five-set claves, each set sharing an original, that can be used as meters in other musical forms. Ex. 3d is an example of this (number 4 out of 5) in which the *clave*, known as *clave* 2-3, is derived from the *clave* 3-2 (original, see Ex. 3a). Therefore, all the musical examples presented in this essay will be notated in simple meters (i.e., 2/4, or 3/4).

Ex. 3d

Claves are never performed (as meters) in Puerto Rican music. The foundation of the folkloric music of Puerto Rico is based upon the derivation of rhythmic figures from originals that at the same time, are derived from the mother cell 3+3+2. By applying the rotation technique to an original, a four, five, eight, or nine-set rhythmic figure is created. Ex. 4 shows this applied to the original 1+2+2+1+2 creating a five-set rhythmic figure (see rotation table in appendix). A rest in the first beat of a rhythmic figure, which is very common, does not change its number of beats (see Ex. 8).

Ex. 4
The concept of rotation is better understood as a shift in perception of the listener by which a performer “shifts his accentuation and as a result of this other inherent rhythms are brought into the foreground . . . .” (Kubik, 1962: 42). The listener does not move; it is the object that moves (see Ex. 5).

Ex. 5
Some rhythmic figures are performed as cyclical patterns while at the same time others are varied and/or improvised. This is what listeners perceive, and it is this method that creates the *rhythmic structure* of the pieces. The rhythmic structure adapts to three types of forms: one based on poetic structures from Spain, such as the *décima*, the call-and-response form from sub-Saharan Africa, and another composed of many sections.

Here and in the following discussion of the rhythmic figures a bold number denotes a rest with the same value (e.g., a bold number 2 would have a value of an eighth note rest).

Variants of rhythmic figures are formed through subdivision (div.), contraction (con.), and substitution (sub.). These techniques create rhythmic figures that *do not appear* in the rotation table. An analogy between the way to vary the rhythmic figures and the rhythmic modes of the late Medieval period will help to understand this technique better. “Theoretically, according to the system, a melody in mode I should consist of an indefinite number of repetitions of the ♩ ♩ ♩ pattern, each phrase ending with a rest, which replaced the second notes of the pattern . . . . In practice, however, the rhythm of such a melody would be more flexible than such a scheme shows. Either of the notes could be broken into shorter units [subdivision], or the two notes of the pattern could be combined into one [contraction]… also a melody in mode I might be sung over a tenor which held long notes not strictly measured [substitution], or which might be organized in the pattern of mode V [polyrhythm!] . . . ” (Grout and Palisca, 1988:106).

Rhythmic figure 3+1+2+2 can be subdivided in this manner: (1+1+1)+1+2+2. The dotted eighth note has been subdivided into three sixteenth notes (see *seis mapeyé* in appendix, m. 2). There can also be more types of subdivisions, for example, an eighth
note or a sixteenth note can be subdivided into a triplet. Uncommon subdivision occur as in m. 11 from the *bomba* “Palo ‘e bandera,” (see appendix) where the *cantaora*\(^9\) subdivides the third and fourth beats of (2+1)+2+2+1 into a triplet. The eighth note triplet covers the space of two eighth notes (3:2).

Another method of variation is contraction. This means that instead of being subdivided the rhythmic figures can be combined by adding any two adjacent notes, e.g., rf 9a7\(^{10}\) (2+1)+(2+1)+2+2+2+2+2 becomes (2+1)+(2+1)+2+4+4 as in mm. 1-2 in the *plena* “Cortaron a Elena.” Sometimes uncommon rhythmic figures are created in this way, e.g., rf 8d7 2+2+(2+1)+2+3+2+2 becomes 2+2+(2+1)+2+3+4. An important point is that contraction may indicate a *cadence*.

Substitution occurs when either half or the whole rhythmic figure is replaced by any other half or even by a complete rhythmic figure, and by diminution/augmentation. There are two reasons for doing this: to create a more dynamic thrust to the phrase and for cadences. An example of the former appears in the *danza* “El Coquí” where in m. 19 the second half of rf 5a4 1+2+1+2+2 is replaced by a replica of its first half 1+2+1+1+2+1 just before the climax arrives. Another example also appears in “El Coqui” mm. 23-24, at the end of the first section where the second half of the rf 9a7 2+1+2+1+2+2+2+2+2 is replaced for by a replica of its first half (m. 23) 2+1+2+1+2+1+2+1+2. This substitution makes two rf 5a3 appear in a row next to two free measures (mm. 22-25) breaking the established pattern just before the cadence (see

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\(^9\) A term used in the southern region of Puerto Rico that means woman singer. It has the same meaning in flamenco music (Ríos Ruiz, 1998: 75).

\(^{10}\) Rf stands for rhythmic figure, number 9 indicates the beats it contains, letter a indicates one of many possible permutations, and number 7 indicates one of many possible rotations. See rotation table at the end of the appendix.
also mm. 38-41, at the end of the second section of the piece). An example of diminution appears in “Palo ‘e bandera,” m. 6, where two eight notes have been replaced by (see Ex. 1b).

There are two types of semiotic analysis: paradigmatic and syntagmatic. The former represents a vertical list of the segmented phrases without temporal considerations (ex. 6). The latter includes the segmentation of the phrases in a temporal exposition that is read from left to right, and from top to bottom (see ex. 7). This will preserve the temporal order of the music while aligning related phrases and their derivations (A, Aexp, B). Follow the steps from 1 to 8. In addition to considering rhythm, the analysis will also consider boundary pitches, i.e., pitches that mark the limit of the melodic contour in the phrases. (ex. 8). Ex. 9 shows the plena “Cortaron a Elena” in standard notation.

The phrasing and rests of the vocal line are used to segment the rhythmic figures and the lower and upper limits of the melodic contour (frame pitches). The selection of phrases is based on the natural aspect of breathing and text. Phrases can begin on any beat of a rhythmic figure. The most common is the second beat.

Phrases with distinctive rhythmic figures are labeled with capital letters (A, B). These labels do not represent the segmentation of the pieces as a whole into sections.

Ex. 6

\[
\begin{align*}
\text{A} & \quad \text{A exp} & \quad \text{B} \\
\text{A cut} & \quad \text{B cut} \\
\end{align*}
\]
Ex. 7

The empty measures are not included in the temporal reading.

ex. 8

varied intervals
fixed intervals

Ex. 9

Cortaron a Elena, cortaron a Elena.

Elena era muy preciosa, la reina del arrabal.
Cuan-do vi-no la no-ti-cia de que esta-ba en el hos-pital.

quel mal-va-do por ce-los que su ca-n-ta vi-no a mar-car.
Next to each capital letter an abbreviation will denote four types of transformations: cut, exp, cont, and var. These signify the following operation, respectively: a phrase is reduced to a number of beats by cutting a segment of it; a phrase is expanded by adding a number of beats to it; the contour of a phrase moves toward a new direction, and the rhythm of a phrase is varied.
2.2 Semiotic Analysis

I. “Palo ‘ e Bandera”

“Palo ‘ e Bandera” is a bomba from the municipality of Guayama, in the southern part of Puerto Rico. The cantaora (singer) sings the story of a cantaora who knows that her husband, playing first drum, is having an affair with the young woman dancer of the ensemble. The singer publicly tells the dancer to be respectful and stop the affair. The cantaora improvises on the refrain of the chorus in a call-and-response manner (see transcript in appendix).

The melody is in sentence form in both sections with an exception in the last phrase of the chorus that is repeated with variation. The melody lacks a tonal center because it is based on the tetrachord D–F–G–A. The notes D, G, and A are used as cadences, most commonly G and D. Note D is the finalis of the work. The highest note is A and it appears in various places (mm. 2, 11, 26, et al). “Repeated notes and skips of a third are very common in bomba melodies--the repeated notes usually emphasize the fifth note of the scale. And skips of a third also move in arpeggio fashion.” (Vega-Drouet, 1979: 101). Melodic fifths and the melodic octaves play an important role in the piece because these create melodic boundaries that guide the direction of the contour. Melodic thirds and to a lesser extent melodic fourths are the most common within these boundaries. The chorus has the boundary intervals A⁴–D⁴ in mm. 13-15, A⁴–D⁴ in mm. 15-17, A³–A⁴ in mm. 17-21, and A³–A⁴ in mm. 21-25. The soloist performs a variation of this melody from mm. 1-13. The soloist has the boundary intervals A³–A⁴ in mm. 25-27, A⁴–D⁴ in mm. 27-29, and A³–A⁴ in mm. 29-33. The intervalic relation of boundary notes between the chorus and the soloist is significant (unisons and fifths). The boundary notes
overall are $A^3$–$D^4$–$A^4$, an octave (see Ex. 1). In all the examples, the selection of pitches that guide the contour are based on the phrasing, harmony, and repetition.

The chorus has these rhythmic figures: rf A: 8c1 (mm. 13-14), rf A: 9b4 (mm. 15-17), adjacent to rf B: 5a5 repeated (mm. 17-19), rf B: 8a7 (mm. 19-21), and rf B: 5a5 (mm. 21-25) adjacent to rf B: 8c7. The soloist begins the piece with a variation of the chorus’ melody with a poco rubato at the beginning of the melody (mm. 1-12). This is very common in bomba. After the chorus the soloist has rf B: 5a5, rf 4a2 adjacent to rf B: 5a5 repeated (mm. 25-29); from mm 29-33 the soloist continues with rf B: 5a5, rf B: 5b3, rf B: 5a4, and rf B: 4b1. There are subdivisions as in m. 24 where the eighth notes are subdivided into sixteenth notes and contractions as in m. 14 where the eighth notes are contracted into a dotted quarter note.

We have to understand that the grouped pitches, text, and rhythmic figures from the chorus are the bases for improvisation. The soloist will derive the melodic lines, text and rhythmic figures from the chorus. The chorus gives the musical basis to the improviser and through repetition, acts as a reminder.

The buleador and cuas have rf 5b1, and rf 9a7, respectively that are static while the cantaora improvises on many figures rf B: 5a5, being the most performed. Polyrhythm is an important characteristic of this work because it is made up of distinctive rhythmic figures. Also, phrases of the melodic line overlap statements of the other figures.
(mm. 17-21) or have the same length as with the *cuas* (mm. 25-27). These relationships can be better explained through ratios. The *buleador* figure stands in a 2:1 ratio to the *cuas* and in an 4:1 to the *cantaora*. This shows that all of these figures are derived from the 3+3+2 pattern with phrases of various sizes, and a periodicity that stands in simple ratios. The longest phrase of each piece presented in this essay will determined its periodicity (see Arom, 1991: 619-659).

II. *Aguinaldo cagüeño*

This *aguinaldo cagüeño* (from the municipality of *Caguas*) is in D major and has a popular-religious text based on Three Kings’ Day. The *trovador* improvises in *coplas* on that theme (see transcript in appendix).

The cyclic harmonic progression of the *aguinaldo cagüeño* is based on four chords: IV–I–V–I sometimes with the minor seventh added to the dominant (G–D–A\(^7\)–D). The highest note is F\#, appearing in mm. 17 and 22. Melodic thirds and sevenths play an important role in this piece because these create boundaries that guide the direction of the contour (as in *bomba*). The *trovador* has the boundary intervals B\(^4\)–D\(^5\) in mm. 8-10, C\(^#5\)–E\(^3\) in mm. 10-12, E\(^5\)–C\(^#5\) in mm. 12-14, C\(^#5\)–D\(^4\) in mm. 14-16, F\(^#5\)–D\(^5\) in mm. 16-18, C\(^#5\)–D\(^4\) in mm. 18-20, F\(^#5\)–D\(^5\) in mm. 21-22, E\(^5\)–C\(^#5\) in mm. 22-24. These create a parallel motion of thirds (B\(^4\)–D\(^5\), E\(^5\)–C\(^#5\), F\(^#5\)–D\(^5\), and E\(^5\)–C\(^#5\)). The boundary notes overall are B–C#–D–E–F#, a perfect fifth (see ex. 2). The large number of thirds as boundary notes is significant. It is also significant that the small leaps emphasize the parallel motion of thirds.

![Ex. 2](image-url)
The *aguinaldo* is only composed of rhythmic figures from permutation 8d with the most numerous (rf A: 8d8) appearing in mm. 10-20 and mm. 22-24. There are two more that appear once each; the first is rf A: 8d6 in mm. 8-10, and the second is rf A: 8d2 in mm. 21-22. These rhythmic figures appear almost exactly as in the rotation table but all of these have contractions and subdivisions (see mm. 10,12 and m. 19, 23, respectively).

The guitar and *güiro* have rf 4c3 and rf 5b1, respectively, while the cuatro has the following figures: 3+3+2 pattern, rf 5a4, and rf 5a5. The *trovador* improvises on the rhythmic figures from permutation 8d. The polyrhythmic characteristics of this work are evident. The phrases of the melodic line overlap the rest of the figures. The guitar figure has the same ratio as the *güiro* and *cuatro*, and stands in a 2:1 ratio to the *trovador*. Once again, the important aspect is that the unity is preserved through the rhythmic figures by deriving them from the *claves*.

### III. Seis mapeyé

The *seis mapeyé* is in D minor and the secular text is about a peasant’s esteem for a bull that has just died. The *trovador* improvises in *décimas* on that theme.

The cyclic harmonic progression of the *seis mapeyé* is based on the Andalusian cadence: i, VII, VI and V with each chord having a secondary dominant. The highest note is A and it appears in mm. 25, 29, and 37-38. The melodic seconds, and thirds, fourths, and fifths play an important role in this piece, especially the last two, because these create boundaries that guide the direction of the contour (as in *bomba* and *aguinaldo*). The *trovador* has the boundary intervals F⁴–C⁴ in mm. 17-18, G⁴–Bb⁴ in mm. 19-21, E⁴–A³ in mm. 21-23, G⁴–C⁴ in mm. 24-27, G⁴–C⁴ in mm. 29-31, F⁴–Bb³ in mm. 31-33, E⁴–A³ in
mm. 33-35, G\textsuperscript{4}–C\textsuperscript{4} in mm. 37-39, E\textsuperscript{4}–Bb\textsuperscript{3} in mm. 40-41, and E\textsuperscript{4}–A\textsuperscript{3} in mm. 41-43. These create a compound melody of thirds (G–F–E and C–Bb–A). The boundary notes overall are E–F–G–A–Bb–C, a minor sixth (see ex. 3). The large number of fifths as boundary notes is significant.

The most performed rhythmic figures are: rf A: 4c1 and rf B: 5b3. The former appears within rf A: 8e1 in mm. 17-19, rf A: 8e5 in mm. 33-34, and rf A: 8e5 in mm. 37-39. The latter appears alone in mm. 29-30 and mm. 33-34. In mm. 21-23, and mm. 25-27 rf B: 5b3 appears within rf B: 9b7. All of these rhythmic figures have subdivisions (rf A: 5b3 in mm. 21-22), or substitution, for example, rf A: 9e9 in mm. 19-20 has instead of the two eighth notes.

The güiřo, guitar, and cuatro have rf 4a1, rf 8a1, and rf 8a1, respectively. The figure 4a1 appears in all of them with subdivisions in the last one. The trovador has many rhythmic figures, therefore, the work is polyrhythmic as with the bomba and aguinaldo. The phrases have the same length except for the güiřo and the one in mm. 40-41 improvised by the trovador. The güiřo figure stands in a 2:1 ratio to the others and, as with the previous forms, the rhythmic figures sustain the piece.

IV. “¡Ay Choferito!”

“¡Ay Choferito!” is a guaracha in F major about a man who tells the driver stories while being driven to San Juan Bay. It has a form of call-and-response.

The chorus and the soloist have each four phrases. The last two phrases of the
chorus are repeated. The harmony of the chorus alternates between I, IV, and V. The solo section has only I and V (mm. 13-21). These three chords, especially I and V, are ubiquitous in the major modes of Caribbean folk music. The highest note (Bb) appears in the chorus in mm. 5-6 and 9-10. The melodic thirds and to a lesser extent the melodic fourths play an important role in this piece because these create boundaries that guide the direction of the contour (as in bomba, aguinaldo, and seis). The chorus has the boundary intervals A₄–F₄ in mm. 1-3, A₄–F₄ in mm. 3-5, Bb₄–F₄ in mm. 5-7, G₄–E₄ in mm. 7-9, Bb₄–F₄ in mm. 9-11, G₄–E₄ in mm. 11-13; while the soloist has the boundary intervals C₄–A₄ in mm. 13-15, A₄–F₄ in mm. 15-17, C₄–A₄ in mm. 17-19, and A₄–E₄ in mm. 20-21. The use of parallel motion or compound melody becomes blurred in the boundary intervals of the chorus. The soloists has oblique motion (pedal A and F descending to E). The boundary notes overall are E–F–G–A–Bb–C, a minor sixth (see Ex. 4). The intervalic relation of boundary notes between the chorus and the soloist has augmented (unisons, seconds, thirds, sixths, and sevenths). One of the reasons is because neither the harmony nor the melodic line of the soloist includes Bb (IV). Once again the thirds are everywhere. The G# in the chorus (m. 2) is a lower neighbor note. The cadences are not easy to discern but these end on the first beat of mm. 13 and 22 (m. 22 is the same as m. 1 where the melody goes back to the beginning). The cadences also delineate the chorus and solo sections of the work.

Ex. 4
Rf. A: 9b4, rf. A: 9c9, and rfA: 8e7 are the rhythmic figures used in the chorus and rf B: 8a5 is the one used in the solo. The figures in the chorus appear in their original form. The figure in the solo section has two contractions in mm. 15 and 19. The figures from the rotation table create a rhythmic structure that communicates cohesion to the Puerto Ricans by deriving these rhythmic figures from the clave 3+3+2. The folkloric music of Puerto Rico is not passive, requires the participation of the community. “African music, more rhythmic, is above all for action and the cooperative movement: is groupal. The white music, more melodic, is principally for the listener and the reflexive thought: is selective” [my translation] (Ortiz, 1965: 303).

The güiro, guitar and the singer have rf 4a1, rf 4a1 and rf A: 9b4, among others, respectively, showing the polyrhythmic characteristics of the work. The phrases of the melodic line overlap statements of the others. It is very common to establish phrase patterns of equal size at the beginning of a piece so that the next phrase(s) might be shortened and expanded in length, as in mm. 5-13, to create a sense of imbalance before the cadence. Sometimes the phrases and the rhythmic figures have the same length. The güiro and guitar figures stand in a 2:1 ratio to the singer having the same ratio of the aguinaldo and seis. Once again, the importance of the rhythmic figures in the cohesion of the music is clear.

V. “El Coquí”

“El Coquí” is a danza in Bb major and also the onomatopoeic name of an endemic frog (*Eleutherodactylus coqui*) that emits an almost-octave interval mating call. It is in rounded binary form with Theme A in Bb major and Theme B in the dominant of Bb major.
The danza has three chords: I, V, and ii 6-3. The supertonic chord is not common in Caribbean folkloric music. The harmony alternates between the I and V except in m. 20 where the supertonic 6-3 chord marks the climax and the highest note appears (G).

The melodic thirds and fifths and to a lesser extent the melodic seconds and fourths play an important role in this piece because these create boundaries that guide the direction of the contour (as in the previous examples). The piano in Theme A (right hand) has boundary intervals A♭⁵–F⁵ in mm. 9-10, D⁵–Bb⁵ in mm. 11-12, G⁵–Eb⁵ in mm. 13-14, Eb⁵–C⁶ in mm. 15-16, A⁵–F⁵ in mm. 17-18, F#⁵–D⁶ in mm. 19-20, C⁶–F⁵ in mm. 21-22, Bb⁵–F⁵ in mm. 22-23, A♭⁵–Bb⁵ in mm. 23-24. Theme B has F⁵–Eb⁵ in mm. 25-26, A⁵–F⁵ in mm. 27-28, D⁶–A⁵ in mm. 29-30, C⁶–F⁵ in mm. 31-32; Then, the piece returns to the second half of Theme A, G⁵–F⁵ in mm. 33-34, F#⁵–D⁶ in mm. 35-36, C⁶–F⁵ in mm. 37-38, Bb⁵–F⁵ in mm. 38-39, and A♭⁵–Bb⁵ in mm. 39-40. The boundary notes overall are Bb–C–D–Eb–F–F#–G–A–Bb, an octave (see Ex. 5).

Following the introduction in m. 9 rf A: 9a7 (left hand) and rf A: 9a8, and rf B: 8d6 (right hand) are the main rhythmic figures of the piece. In Theme A rf A: 9a7 is static and rf A: 9a8 is dynamic because the former maintains its rhythmic figure while the latter is subjected to variation. For example, in m. 11 rf A: 5a4 has substituted the four eight notes from rf A: 9a8, another example occurs in m. 19 where the first half of rf A: 5a4 has been cut and placed on the second beat. When Theme B enters its right hand,
rhythmic figure (rf B: 8d6), remains static creating a contrast with Theme A.

The rhythmic figures 9a8, and 8d6 are accompanied by rf 9a7 creating polyrhythm. Rf 9a8 and 9a7 in Theme A, and rf 8d6 and 9a7 in Theme B. An important aspect is that the phrases are of the same length but out of phase because rf 9a8 and rf 8d6 begin in the second beat (m. 9 and m. 25, respectively) while the other in the first (m. 10). It is common that the phrasing of the danzas coincide in both hands, so this one is an exception. The substitution of the eighth notes in rf 9a8 by rf 5a4 (mm. 11, 15, and 22) creates a sense of intensity and expectation. On the other hand, in Theme B, rhythmic figure rf 8d6 is shown in the same form at the rotation table creating the opposite effect, a sense of flow and exaltation. Also, tension at the cadences of the two themes of “El Coquí” in mm. 22-25 and mm. 38-41 is created because the phrasing of both hands is altered. The one in the right hand is shortened with repeats of the coquí call that breaks with the established phrase pattern and in the left hand the four eighth notes of rf 9a7 are substituted with a replica of its first half repeating rf 5a3. This is followed by two measures, each one containing four eighth notes, leaving out its standard alternation. Another purpose is to breathe before going to the next section.

VI. “Cortaron a Elena”

“Cortaron a Elena” is a plena in A minor that narrates the story of a jealous man who cuts the face of a woman called Elena. The soloist improvises on the refrain of the chorus in a call-and-response manner.

The harmony of the chorus alternates between i and V. The iv is added in the solo section (mm. 9-10), which marks the highest note (F). These chords are ubiquitous in the minor modes of the Caribbean folkloric music, especially i and V. The melodic thirds are melodically important in the plena because these create boundaries that guide the
direction of the contour. The chorus has the boundary intervals C⁴–E⁴ in mm. 1-2, D⁴–F⁴ in mm. 3-4, C⁴–E⁴ in mm. 5-6, and F⁴–A³ in mm. 6-8; while the soloist has the boundary intervals C⁴–E⁴ in m. 9, F⁴–D⁴ in mm. 10-11, A³–C⁴ in mm. 12-13, D⁴–B³ in m.14, and F⁴–A³ in mm. 14-16. These create a parallel motion of thirds in the chorus (C⁴–E⁴, D⁴–F⁴, C⁴–E⁴, and F⁴–A³). The improvised section has less parallel motion. The boundary notes overall are A–C–D–E–F, a sixth major (see ex. 6). The intervalic relation of boundary notes between the chorus and the soloist is significant (unisons and thirds).

Rf A: 9a7 and rf A: 9b4 are used in the chorus section. The former has the eighth notes contracted to quarter notes (m. 2) and the latter has two eighth notes subdivided into sixteenth notes (m.6). The half note in m. 8 is contracted but more importantly it indicates a cadence. The soloist has rf B: 9c3, 9c8, 9a7, and 9b4. The first two are new, and the other two are from the chorus. The solo section has more subdivisions than the chorus because this gives more energy to the section (see m. 9). The chorus section has more contractions than the solo section. Once again the rhythmic figures sustain the rhythmic structure of the piece.

Panderetas 3 and 2 have the following figures, respectively: 2+2 and 4+2+2. Pandereta 1 uses as a basis for improvisation the rhythmic pattern 3+3+4+4+2 with the phrasing beginning on the last beat. The bell pattern of the drum Gahu ensemble uses the same rhythmic pattern as a clave (Locke, 1998: 18). The singer has rf A: 9a7, rf B: 9c8, and others figures showing that the piece is polyrhythmic as the previous ones. The
phrases of the melodic line overlap statements of the panderetas. The phrase structure of
the chorus is in sentence form (see bomba, pag. 2). From mm. 1-4, phrases of equal size
are established followed by short and expand phrases (mm. 5-8), as with the guaracha,
creating a sense of imbalance before the cadence. The short and expand phrases end and
begin with the note D in m. 6 (elision). The solo has a phrase pattern of short and
expanded phrases creating a sense of tension before arriving at the stable chorus section.
The pandereta 3 figure stands in a 2:1 ratio to the pandereta 2 and in a 4:1 to the
pandereta 1, and the singer having the same ratios of the bomba.
CHAPTER 3. CONCLUSION

The thirds are the most abundant interval in the melodic lines of Puerto Rican folkloric music followed by the fifths. These appear in the foreground and background of the melodies. Its inversions are common. The melodic lines are based on rhythmic figures derived from the rotation table, all containing the mother cell 3+3+2, that segment the pieces by phrases, sections and genres. The principle of rotation is essential to ease in the memorization of the rhythmic figures and make them easier to vary (e.g., in 4a1 the two eight notes can be converted to a quarter note), and to change a rhythmic figure for another one (e.g., from 5a3 to 5a4).

The most important purpose of the Caribbean musical system is to be improvised. To be more precise, the reason for the creation of this system was (and still is) to inspire a sense of dynamism to all present in the performance, indeed a state of ecstasy: a change not only of state of mind but also on the state of the body. This could also be applied to the music of the circum-Caribbean because this region shares a common history of migration, religion, agriculture, colonialism, and so forth that allows us to find similar parameters in its music. These musical forms pull together many Puerto Ricans in dance and song as a cultural group sharing their tradition.

Rhythmic figures are grouped into four-beat figures (4a, 4b, and 4c), of five-beat figures (5a, 5b), of nine-beat figures (9a, 9b, 9c, 9d) and of eight-beat figures (8a, 8b, 8c, 8d, 8e, 8f). More group figures can be created due to the endless possibilities of combinations among the figures (e.g., any 4 beat rf with any 5 beat rf, and so on). These can be varied by subdivision, contraction, substitution, and/or diminution/augmentation showing that the rhythmic figures are not static and can be transformed in many ways.
during *improvisation* creating a dynamic music.

The European concept of syncopation does not apply to this music because the beats of the rhythmic figures fall on and against the pulse continuously (see musical examples). Some musicologists denied its existence in African music and Diaspora (Cuba, Puerto Rico, Haiti) (Ortiz, 1965: 289). By moving the melodic line toward a high register tension is created as in “El Coqui” (m. 20) or by the improvisation of the dancer in *bomba* where at a certain moment rapid movements in succession on and/or against the pulse can create tension. The former is the European way, the latter the African way.

The performers will have the last word in deciding if the rotation technique works or not. Caribbean music is an oral tradition. The performers learn from their parents, relatives, or friends through oral tradition (empiric). They do not know how it works consciously but they surely know how to play it. Finally, it is important to understand this system consciously so that one might carry it in new directions, for example, through teaching it to a person outside the culture, as in contemporary music or/and commercial music. This system can go beyond its folk roots and create new meanings for a community that is willing to experience a new musical language.
BIBLIOGRAPHY


APPENDIX A. MUSICAL EXAMPLES
with rhythmic figures from the rotation table

Palo 'e Bandera
Bomba (Belén)

trans. Rafael González Bothwell
Anonymous
Pa-lo' e ban-de-ra ba-ri- lle ca-tre con-mi-go

no tu-tie-ne la ca-ra lar-ga co-mo la mu-la del ten-

dal tu-tie-ne la pa-tas fla-cas co-mo pla-yer-ro de la mar.
cantaora: ¡Palo 'e bandera barille c'atre conmigo no que tú tienes la cara larga como la mula del tendal y tú tienes la patas flacas como playero de la mar!

coro: ¡Palo 'e bandera barille c'atre conmigo no tú tienes la cara larga como la mula del tendal tú tienes la patas flacas como playero de la mar!

cantaora: Aprende a tener respeto, no vengas a maltratar no seas enredadera como playero de la mar.

coro: ¡Palo 'e bandera barille c'atre conmigo no tú tienes la cara larga como la mula del tendal tú tienes la patas flacas como playero de la mar.

cantaora: Sí, lo ajen que deja quieto, no vengas a maltratar no seas enredadera como playero de la mar.
Aguinaldo Cagüeño
(La Virgen Lavaba)

Trans. Francisco López Cruz
Anonymous
Virgen lavaba, San José tendía; La
saron los reyes, y viene la Octava; Pa-

Virgen lavaba, San José tendía; El
saron los Reyes, y viene la Octava; Dios
Niño lloraba, Joaquín lo mecía

Dios nos salvó, para celebrarla

El Niño lloraba, Joaquín lo mecía

Dios nos salvó, para celebrarla
1) La Virgen lavaba,
San José tendía;
El Niño lloraba,
Joaquín lo mecía.

2) Pasaron los Reyes
y viene la Octava;
Dios nos de Salud
para celebrarla.

3) Se fueron los Reyes,
bendito sea Dios;
ellos van y vuelven
y nosotros no.

4) Me voy a ausentar
lleno de alegría;
por José y María
dejo de cantar.
Seis Mapeyé
(El Toro Barcino)

Trans. Rafael González Bothwell
Anonymous
¡Ya murió el toro barcelon!

El más bravo del corral, después de tanto bravura.
trovador: Le lo lai le lo le
le lo lo lo lo lo lo le lo le
murió el toro barcino
ya murió el toro barcino.

El más bravo del corral
después de tanto bravar
muy celoso en el camino
después que hubo el palo de equino
bendito
de donde yo lo amarraba.
¡Ay! Choferito

(Guaracha)

Trans. Javier de la Torre
Anonymous
solo: (1)
Un muchacho se cayó
de la torre de una iglesia;
no se hizo nada en los pies
porque cayó de cabeza.

(2)
Cuando un pobre se enamora
y un rico se le atraviesa,
sale el pobre por la puerta
rascándose la cabeza.

coro:
¡Ay! choferito prepárate
¡ay! choferito prepárate
porque yo quiero que tú
me lleve, ¡ay Dios!,
a la bahía e San Juan
porque yo quiero que tú
me lleve, ¡ay Dios!,
a la bahía e San Juan.

(3)
Un jíbaro fue a Santurce
y le sorprendió el tranvía;
cuando tocaron el pito
ni el demonio lo cogía.

(4)
El que piense en matrimonio
con el tiempo como está
merece la bofetada
que se le perdió al demonio.
El Coquí
Danza Puertorriqueña
1901

José I. Quintón
1881-1925
Cortaron a Elena
(Plena)

Trans. Rafael González Bothwell
Anonymous

Rf from rotation table

Voz

9a7
chorus con.

Pandereta 1.

Pandereta 2.

Pandereta 3.

Rf

9a7

V.

cor-ta-ron a E-le-na y se la lle-va-ron pal hos-pi-tal.

Pan. 1.

Pan. 2.

Pan. 3.
coro:
Cortaron a Elena,
cortaron a Elena,
cortaron a Elena y
se la llevaron pa'l hospital.

solo: (1)
Eso daba pena
daba ganas de llorar,
cortaron a Elena
y se la llevaron al hospital.

(2)
Su madrecita lloraba
y por qué no iba a llorar,
si le cortaron a Elena
y se la llevaron al hospital.

(3)
Elena era muy preciosa
era la reina del arrabal
y aquel malvado por celos
que su carita vino a marcar.

(4)
Cuando vino la noticia
de que estaba en el hospital,
el pueblo lleno de rabia
a aquel hombre quería matar.

(5)
Su padre también lloraba
y como no iba a llorar,
si era Elena su hija
la que estaba en el hospital, bendito.
APPENDIX B. SEMIOTIC GRAPHICS

bomba (belén)

aguinaldo (cagüeño)
seis (mapeyé)

¡Ay! Choferito
guaracha
El Coquí
danza
Cortaron a Elena plena
APPENDIX C. ROTATION TABLE

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VITA

Rafael González Bothwell was born in San Juan, Puerto Rico, in 1966. He is a candidate for the degree of Doctor of Philosophy at Louisiana State University, where he studies music composition with Dr. Stephen David Beck. He received a Bachelor of Arts in music from the University of Puerto Rico, Río Piedras, in the Fall of 1991, and a Master of Music degree from University of South Florida in the Fall of 1995. His former teachers have included Prof. Javier de la Torre, Prof. Roberto Sierra, Dr. Paul Reller, and Dr. P. Q. Phan. In 1998 his horn in F and piano work “Encuentro” was performed in New York City by the North/South Consonance Competition. In 2005, the chorus work “Al Oído de una Muchacha” was performed in Caguas, Puerto Rico, by Orfeón San Juan Bautista under the sponsorship of ACPR. He is a Member of ASCAP.