

ERNESTO GARCÍA DE LEÓN: A STUDY OF SONATA NO. I, OP. 13,

LAS CAMPANAS (THE BELLS)

David R. Tercero, B.M., M.M.

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APPROVED:

Thomas Johnson, Major Professor

Lyle Nordstrom, Related Field Professor

David Schwarz, Committee Member

Graham Phipps, Director of Graduate Studies in
the College of Music

James C. Scott, Dean of the College of Music

Sandra L. Terrell, Dean of the Robert B. Toulouse
School of Graduate Studies

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The purpose of this document is to further the current research and encourage interest in the music of the Mexican composer Ernesto García de León. This paper will advance the current research with an in-depth analysis of the first movement of Sonata No. I, Op.13, *Las Campanas* (The Bells) for solo guitar. The analysis will focus on the pervasive presence of the melodic and harmonic intervals of perfect fourths, perfect fifths, and tritones as constructive devices throughout the sonata. This will provide interested performers a technical understanding of the composition. In addition to the compositional aspects, the analysis will be extended to consider the programmatic elements described by García de León. Select alternative fingerings will also be given to provide the interpreter options for difficult passages.

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TABLE OF CONTENTS

	Page
Chapters	
1. INTRODUCTION.....	1
Background and Significance	
Purpose of the Study	
State of Research	
Method	
Background Information: Sonata No. I, Op. 13, <i>Las Campanas</i>	
Form: I Diálogos Criollos (Creole Dialogues), First Movement	
2. EXPOSITION: I. DIÁLOGOS CRIOLLOS (CREOLE DIALOGUES)	8
First Theme	
Second Theme	
Closing Theme	
3. DEVELOPMENT: I. DIÁLOGOS CRIOLLOS (CREOLE DIALOGUES)	29
4. RECAPITULATION: I. DIÁLOGOS CRIOLLOS (CREOLE DIALOGUES)....	44
5. PERFORMANCE ISSUES.....	51
Suggested Fingerings	
6. SUMMARY AND CONCLUSION	56
BIBLIOGRAPHY	59

CHAPTER 1

INTRODUCTION

Background and Significance

Ernesto García de León (born: 1952 in Jáltipan, Veracruz, Mexico) is an active guitar composer and performer who to date has published six volumes of works. During the 1980s, he was involved in numerous conferences of Hispano-American composers and was a founding member of a group of Mexican guitarists and composers championing contemporary guitar music called “Nova Guitarra Musica.” In 1988, he recorded *Del Crepúsculo*, a disc solely dedicated to his music, and gained an increasing renown for his music through his own performances and performances by other guitarists. His music has been performed in Mexico, North and South America, Europe and Asia. Ernesto García de León currently lives in Mexico City where he teaches and composes.

His biography, presented in the *Composers Series: Ernesto García De León Collected Works*, makes the concerted effort to present influencing elements, musical preferences and important events that developed and shaped García de León’s compositional style. One point of emphasis is that music was an integral part of his childhood. He sang and played a variety of instruments from percussion to Mexican folk instruments such as the *jarana* (a four- or five-coursed guitar) and the modern classic guitar. During his impressionable adolescence years, García de León showed an eclectic interest in music that ranged from listening to recordings of Segovia to jazz, Mexican folk music, popular songs, *bossa nova*, European classics, and The Beatles. He even composed popular music, and his brother Antonio became a famous singer of the popular *Jarocho/Son* (song/dance) style.

By age fourteen, it was apparent to García de León's father that he had an affinity for music, and it was his father's dying wish that he formally study music. In 1970, he entered the Music School of the National Autonomous University of Mexico in Mexico City. During his first two years, he continued his interest in popular music as a member of "Las Almas," but from 1972 to 1978, he devoted himself entirely to the classic guitar. He furthered his formal music training by composing and analyzing composers such as Mexico's Manuel Ponce, Silvestre Revueltas and the Brazilian composer Heitor Villa-Lobos.

In 1977, García de León experienced the possibilities of modern compositions for the classic guitar through the works of the Cuban guitarist/composer Leo Brouwer. He presented his compositions to Brouwer for advice that led to Brouwer inviting him to Cuba in 1979. There he was introduced to many Cuban composers and was encouraged to realize his potential as a composer. Since then, Ernesto García de León has developed a personal style of music enriched with foreign influences but identifies himself first and foremost as a musician who imagines art as a Mexican.¹

The most revealing insight into the music of García de León comes from a short unpublished essay written by himself entitled *Some Reflections on My Music*:

All of my music, without exception, is rooted in the *Son Jarocho* and *Rumba*. More subtly underneath is the influence of the traditional music of Mexico and the Caribbean. My tropical and rural background always comes to the forefront in one way or another; these influences are a constant in my nature whether it is in a small role or a larger panorama. I am first and foremost - like the Mexican poet Carlos Pellicer called

¹ Ernesto Garcia de Leon, *Composers Series: Ernesto Garcia de Leon, Collected Works, Volume*, ed. Michael Lorimer. (Pacific, MO: Mel Bay Publications, Inc., 1993), pp. 2-5.

himself - “Un tropical insobornable.” (This phrase does not translate well, but a loose interpretation would be: A person of the tropics whose nature and heritage is unassailable)

The technical methods used in my compositions include tonality, free form use of the twelve tones (aleatoricism), modality, synthetic scales, exotic scales, ragas, forced intervals, serialism, cuartal harmonies, fifths, etc., polyrhythmic structures, bitonality, polytonality, minimalism, and dodecaphonicism. The forms used vary from traditional such as the sonata, rondo, variations, etc., to free forms. All of this, depends upon the kind of atmosphere I want to create; they permit me to forge a contrasting sonority of varied color. My creativity is open to a great variety of influences and in all my music there exists an invitation and a recommendation to the performer to improvise if he has the capability, and wish, to do so. Creating avant-garde or groundbreaking works does not interest me, so if this did happen it would solely be a coincidence. Simply put, my interest lies in expression.

My music is a result of a struggle to express and evoke the dreams, nostalgia, and memories of my childhood, the strange and hallucinatory melancholy that radiates from the humid jungle ambiance, the reverberations and aromas of the marsh, balmy breezes forging murmuring labyrinths in vastly arched corridors..., the rustling of the palm trees..., the resonance of a far-off train..., a desolate belfry sounding its plaintive cry..., distant and mythical rumbas...²

² Ernesto Garcia de Leon, *Some Reflections On My Music*, Translated by Pedro Haley (unpublished 1999). Given to me by Pedro Haley.

Purpose of the Study

The purpose of this document is to further the current research and encourage interest in the music of the Mexican composer Ernesto García de León. This paper will advance the current research with an in-depth analysis of the first movement of Sonata No. I, Op.13 *Las Campanas* (The Bells) for solo guitar. The analysis will focus on the pervasive presence of the melodic and harmonic intervals of perfect fourths, perfect fifths, and tritones as constructive devices throughout the sonata. This will provide interested performers a technical understanding of the composition. In addition to the compositional aspects, the analysis will be extended to consider the programmatic elements described by García de León. Select alternative fingerings will also be given to provide the interpreter options for difficult passages.

State of Research

Although Ernesto García de León is an active composer and performer, there are few published articles written about him or his music. The only English article about him is “II: Ernesto García de León ‘A Mexican Way of Continuing the Guitar Music Tradition’” (*Soundboard*, 1993) by Alejandro L. Madrid. The article is an interview introducing García de León as a composer to the guitar community. Consequently, the article does not contain probing analytical questions about his compositions. The majority of writings about García de León and/or his music are contained in the prefaces of the *Composers Series: Ernesto Garcia De Leon Collected Works* v. 1-6, written by his publisher Michael Lorimer. The first volume contains a full biography and catalog of all of his works. In addition, the six volumes contain an introduction to each work or collection of works providing appropriate background information and/or comments about compositional consideration for the performer.

The only published article that takes an analytical approach to García de León's music is "El preludio y son no. 1 de Ernesto García de León" (*Pauta: Cuadernos de Teoría Crítica Musical*, 2004) by Armando Gomez Rivas. He discusses the structural elements of this work, which was written in 1980 for two guitars, and identifies that García de León's works are often based on the *son jarocho*, the rumba, and other Caribbean genres. He analyzes the work through three main features of the melodic and harmonic structure of the *Preludio y son no. 1*: 1) the transposition of melodic formulas at different registers; 2) some technical contrasting procedures which produce atonal, minimalist, and diatonic elements; 3) the construction of melodies and harmonic progressions based on traditional music. These are tendencies of García de León's compositional style identified in the *Composers Series: Ernesto García De León Collected Works* v. 1-6, but this is the only published analysis of its kind and limited to this one work.

Method

Examining the compositional style used in Sonata No. I, Op. 13, *Las Campanas*, the analysis will consist of the basic formal structure of the first movement. For each section identified, the analysis will be extended to distinguish all the important musical elements (i.e. themes, rhythms, motives, melodies, harmonies, etc.) that characterize each section. Further consideration will be given as to how each section can be juxtaposed against other sections (i.e. similar or contrasting motives, harmonies, cyclical procedures, etc.). In addition to the compositional aspects, the analysis will be extended to consider the programmatic elements described by García de León.

Background Information: Sonata No. I, Op. 13, *Las Campanas*

Las Campanas is García de León's first sonata completed in February 1982 in Mexico City, Mexico. The work is dedicated to the Mexican guitarist Miguel Limón and was premiered

by Marco Antonio Anguiano in the Carlos Chávez Hall in Mexico City's University Cultural Center on August 1982. The importance and popularity of *Las Campanas* are evident in the 1993 interview conducted by Alejandro L. Madrid. In response to the question "Which do you consider to be your best pieces for the guitar?" García de León's response was "...if I had to talk about an important piece, or pieces, I would mention the four sonatas and the four fantasies, which I believe are the most elaborate works."³ Later in the interview, García de León remarks that his most performed work is Sonata No. I.⁴

The programmatic title *Las Campanas* (The Bells) is described in the preface of the *Composers Series: Ernesto García De León Collected Works* v. 1:

The bell and the belfry are symbolic to the composer of the co-mingling in Latin America of the Indian, European, and African cultures. In the manner that Mexican and Latin American churches are often constructed on the top of or at the site of pre-existing Indian temples, and in the same manner that the religious ceremonies in those buildings mix the aboriginal and African gods with the saints that arrived with the Spaniards, so does García de León combine elements of the three cultures in his music. He recalls, 'Amidst the sounds and ferment of the jungle you hear the chiming of bells mixed with beating of the drums and *son* love songs. This is one of my earliest memories.'⁵

³ Ernesto García de León, "II: Ernesto Garcia de Leon 'A Mexican Way of Continuing the Guitar Music Tradition.'" Interview by Alejandro L Madrid (*Soundboard* 20, no. 2, 1993, p. 45).

⁴ Ibid. p. 46.

⁵ Ernesto Garcia de Leon, *Composers Series: Ernesto Garcia de Leon, Collected Works, Volume*, ed. Michael Lorimer. (Pacific, MO: Mel Bay Publications, Inc., 1993), p. 32.

Form: I. Diálogos Criollos (Creole Dialogues), First Movement

The first movement is composed in the traditional sonata-allegro form consisting of an exposition (mm. 1-68), development (mm. 69-173) and recapitulation (mm. 174-237). The exposition contains a first theme (mm. 1-28), second theme (mm. 31-50) and closing theme (mm. 51-60). The development functions in the traditional sense exploiting the thematic material presented in the exposition, and the movement concludes with the recapitulation restating the themes of the exposition. The following analysis will examine the important musical elements (i.e. themes, rhythms, motives, melodies, harmonies, etc.) presented in the sonata-allegro form.

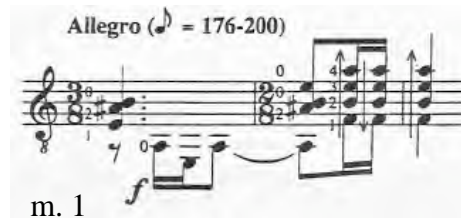
CHAPTER 2

EXPOSITION: I. DIÁLOGOS CRIOLLOS (CREOLE DIALOGUES)

First Theme

The important musical elements that characterize the first theme are the dissonant sonorities, disjunct motives, mixed meter, rhythmic syncopation, rapid arpeggios/scale passages and short irregular phrases. The opening phrase (Ex. 2-1, mm. 1-3) contains the basic elements or kernel used as the compositional building blocks for the first theme.

Ex. 2-1



This phrase is divided into two gestures. The first gesture (Ex. 2-1, m. 1) simultaneously establishes a dissonant sonority and a motive in the bass voice. The dominant characteristic of the sonority highlights the majority of the intervals as either a perfect fourth/fifth or a tritone with the exception of the semitone created between A#4 and B4.⁶ The bass motive is composed of two sixteenths and an eighth note (hereafter referred to as the *ti-ri-ti* rhythm)⁷ further highlighting the interval of a perfect fourth. Note that the aural perception of the initial chord and bass motive combine to create a *ti-ti-ri-ti* surface rhythm.

The second gesture begins with the same pitch classes carried over from the first gesture and is punctuated with a chord reiterating the *ti-ri-ti* rhythm (Ex. 2-1, mm. 2-3). The punctuating

⁶ The register of pitches will be based on the system that identifies middle C on the treble clef as C4. Higher octaves will be ordered numerically C5 and C6, while the lower octave will be C3. Note that the sounded pitch will be an octave lower when performed on the guitar.

⁷ Based upon Cheve's system of counting, as adopted by Kodály.

chord is composed of three of the same pitch classes (B, E, and A) from the first gesture with the addition of F4. Note that the chord is arranged in a succession of fourths, F4-B4-E5-A5, producing the initial interval of a tritone followed by a series of perfect fourths.

Thus far, two significant sonorities have been identified. The first sonority (Ex. 2-2, m. 1) contains the pitch classes E, A, A#, and B, and the second sonority (Ex. 2-2, m. 2) is composed of the pitch classes F, B, E, and A. Since traditional labels of tertian harmony are inadequate to identify these pitch collections with any meaning, the use of set class names⁸ will be implemented. Therefore, the two sonorities identified thus far can be labeled as follows:

Pitch Class Set: [1]-{9TE4}
Set Class: (0127)
Interval vector: 210021

Pitch Class Set: [2]-{459E}
Set Class: (0157)
Interval vector: 110121

Ex. 2-2

Pitch Class Set: [1]-{9TE4}
Set Class: (0127)

Pitch Class Set: [2]-{459E}
Set Class: (0157)

Note the consistent presence of fourths/fifths and a tritone in the interval vectors and the infrequent occurrence of thirds evidenced by one major third in set class [2]-{459E}-(0157), and no minor thirds in either. Also, note the appearance of the pitch classes A, B and E in both sonorities. Hence, these pitch classes will be referred to as the principal pitch classes.

Another relationship between the two pitch class sets [1]-{9TE4} and [2]-{459E} is that they both contain the subset (016). The subset (016) is clearly articulated as a block chord at the beginning of the movement as the pitch class set [1a]-{TE4} (Ex. 2-3, m.1). In the following pitch class [2]-{459E}, the subset (016) is re-voiced but is present as the pitch class set [2a]-

⁸ Allen Forte, *The Structure of Atonal Music* (New Haven, Conn.: Yale University Press, 1973).

{54E}. Observe that the common subsets, [1a]-{TE4} and [2a]-{54E}, between the two sonorities also leads to another shared trait in that the remaining pitch class in both cases is the pitch class A.

Ex. 2-3

Pitch Class Set: [1a]-{TE4}
Subset: (016) of [1]-{9TE4}

Allegro (♩ = 176-200)

m. 1

Pitch Class Set: [2a]-{54E}
Subset: (016) of [2]-{459E}

Although the opening phrase is not based on traditional harmonies, it is not necessarily atonal (i.e. there is no tonal focus) because there is a tonal emphasis toward the pitch class A. This is achieved in two ways: 1) the metric accent of A3 and E3 in the bass (m. 1) has a strong resemblance to a tonic-dominant relationship in tonal music; 2) the final goal of the melodic voice ascends by perfect fourths to rest on A5 repeated on the *ti-ri-ti* rhythm. The aural emphasis of pitch class A is further strengthened by its placement in the outer voices. However, although pitch class A has been identified as the tonal center, the phrase concludes with the unstable sonority pitch class set [2]-{459E}-(0157) voiced with an initial ascending interval of a tritone followed by a succession of perfect fourths (mm. 2-3). Consequently, this creates the impression of an antecedent phrase.

The second phrase, or consequent (Ex. 2-4, mm. 4-5), contains two gestures.

Ex. 2-4

First gesture

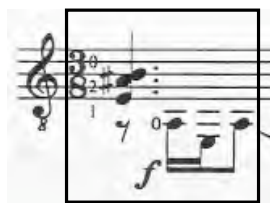
m. 4

Second gesture

The initial gestures of both phrases contain the same pitch classes (Ex. 2-5). Note how the presentation of the pitches are altered by eliminating E4, enharmonically spelling A#4 as Bb4⁹, and by displacing B4 an octave higher (B5). The bass motive from m. 1 (A3-E3-A3) is now stated in the soprano voice (A5-E5-A5) and provides the remaining pitch classes that make the set class [3]-{9TE4}-(0127).

Ex. 2-5

[1]-{9TE4}-(0127)



m. 1

[3]-{9TE4}-(0127)



m. 4

Similarly, the second gestures of the first and second phrases are composed of the same pitch classes (Ex. 2-6). Note how the pitch classes presented as a chord in the first phrase are realized as two contrapuntal voices in the second phrase presenting a sequence of the A-E-A motive in the soprano voice (m. 4) transposed down a fourth. The bass provides the remaining pitches (F4 and A4) to create the set class [4]-{459E}-(0157).

Ex. 2-6

[2]-{459E}-(0157)



m. 2

[4]-{459E}-(0157)



m. 5

⁹ The reason for the enharmonic spelling is due to voice leading. The A#4 (mm. 1-2) resolves to B4 (m. 2), while the Bb4 (m. 4) ultimately resolves down to A4 (m. 5).

Although the consequent phrase uses the same pitch classes presented in the antecedent phrase, the sense of cadence is achieved by the re-voicing and rhythmic placement of the pitches forming an arc between the two phrases. Ultimately, the consequent phrase resolves to a traditionally consonant interval of a perfect fifth created between A4 and E5 (m. 5). This is also the first time that pitch class A has been harmonized with the stable interval of a perfect fifth which up to this point has been harmonized with the traditionally unstable interval of a perfect fourth. However, the sense of arrival is obscured. While the consonant interval of the perfect fifth provides a stable sonority and identifies pitch class A as the root, the sequenced *ti-ri-ti* motive in the soprano tonicizes E. This functions similarly to an imperfect authentic cadence that provides a moment of repose without stopping the momentum of the music.

Ex. 2-7

The musical score for Ex. 2-7 is presented in two systems. The first system, labeled 'Antecedent', covers measures 1 through 4. It begins with a treble clef, a key signature of one sharp (F#), and a 3/8 time signature. The tempo is marked 'Allegro' with a metronome marking of ♩ = 176-200. The music features a complex rhythmic pattern with many beamed notes and rests. The second system, labeled 'Consequent', covers measures 5 through 8. It continues the rhythmic pattern with beamed notes and rests. The score includes fingerings (0-4) and articulation marks (accents, slurs).

The next section (mm. 6-20) continues to expand and develop the intervallic, harmonic, and rhythmic material presented in the opening (mm. 1-5). The first development is an ascending arpeggio composed of the initial pitch class set [1a]-{TE4}. The arpeggio spans the range of two octaves starting on E3 and ascends through E5. The first octave (E3 to E4) is divided by the pitch A3, creating the intervals of an ascending perfect fourth and fifth, while the second octave is divided equally in half with a tritone created by the pitch A#4. The ascending arpeggio is complemented with the descending stepwise motion of an E major scale from E5 through B4. These outer pitches (E5 and B4) echo the structural interval of a perfect fourth. However, by

filling in the interval with ancillary pitches diatonic to E major, the impression of a shift towards a tonal sonority is created, and the interval is obscured (Ex. 2-8, mm. 6-8).

Ex. 2-8

In the succeeding measures (Ex. 2-9, mm. 9-11), mm. 6-8 are sequenced and developed. The arpeggio consists of the principal pitch classes A, B, and E that form the pitch class set $[7]-\{9E4\}-(027)$, and if arranged in ascending order (A3-E4-A4-E5-B5) all of the intervallic relationships would consist of ascending perfect fourths and fifths.¹⁰ However, lowering B5 to B4 (A3-E4-A4-B4-E5) creates a major second between the A4 and B4 consequently altering the aural perception of the quartal/quintal quality of the arpeggio.

The same procedure is applied to the following descending scale of a perfect fifth in mm. 10-11. By ordering the pitches of mm. 10-11 in stepwise motion (E5-D5-C#5-B4-A4), the pitches create a five-note descending scale in A major. However, reversing the order of A4 and B4 alters the impression of the outer interval of a perfect fifth but still implies a shift in the tonality toward A major.

Ex. 2-9

Ascending order of perfect fourths/fifths

¹⁰ Note that this is the first gesture that does not contain a tritone.

Thus far, the points of resolution of the arpeggio/scale figures have been C#5 (m. 8) and B4 (m. 11). Resolving the third arpeggio/scale figure on A4 would complete an anticipated descending stepwise motion in A major: C#5 (m. 8), B4 (m. 11), and A4 (m. 14). However, though the arpeggio/scale figure (Ex. 2-10, m. 12-14) resolves to pitch class A, it does not resolve on the anticipated A4. Instead, it is displaced up an octave to A5. Notice that the arpeggio presents only one ascending P4 although the pitch collection of the arpeggio forms the pitch class set [8]-{8913}-(0157), the same set class as [2]-{459E}-(0157).

The next scale is inverted from descending to ascending but still retains the outer interval of a fourth between E5 and A5. The ancillary pitches used between the outer interval introduces a chromatic pitch (F5) in relation to either the E major or A major tonalities implied by the previous scale passages.¹¹ Note that each sequence maintains a close relationship with the intervallic material presented in the opening phrases but expands the tonal landscape to evoke E major and A major.

Ex. 2-10

[8]-{8913}-(0157)

m. 12

The resolution on A5 (Ex. 2-11, m. 14) is brief because it is elided with the familiar *ti-ti-ri-ti* motive composed of the same pitch class set as [2]-{459E}-(0157) from the opening phrase. The following measure (m. 15) presents an altered sequence of the *ti-ti-ri-ti* motive in the soprano voice. Although the intervallic relationships are rearranged, the principle pitch classes

¹¹ The F5 is used to maintain a consistent surface rhythm.

A, B, and E are still present and are clearly identified by the *ti-ti-ri-ti* rhythm. Note how the C4 (m. 15) contradicts the A major tonality implied by the sequences (mm. 6-13). In fact, the C4 in conjunction with the pitches in the soprano (m. 15) can be analyzed through extended tertian harmony as an A minor 9 chord.

Although this seems incongruent with the established construction of the sonority presented in the opening phrase, the C4 was approached by a descending interval of a perfect fourth from the pitch F4. This not only highlights how García de León is able to use tertian sonorities, but, more importantly, how he is able to rectify the disparate elements of tertian and quartal/quintal harmonies as the music unfolds without compromising the overall sonority. Note that the Am9 (m. 15) contains the set class (016).

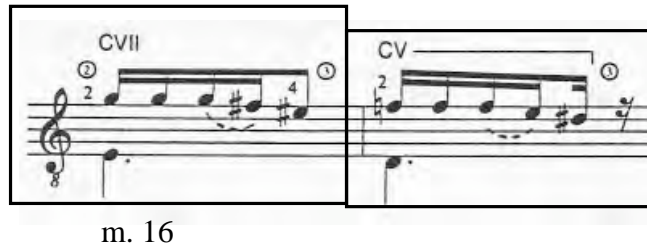
Ex. 2-11

Ex. 2-11 shows musical notation for measures 14 and 15. Measure 14 is labeled [9]-{459E}-(0157). Measure 15 is labeled (Am9). A box in measure 14 is labeled [10]-{E04}-(016). An arrow labeled P4 points from the box in measure 14 to measure 15. The dynamic *mp* is marked in measure 15.

The following material (mm. 16–20) leads toward the cadence in m. 20. The material consists of both atonal and tonal elements. For example, mm. 16-17 presents atonal material that expands the use of the semitone presented in the initial subset [1a]-{TE4}-(016). The descending figure (Ex. 2-12, m. 16) consists of pitches that form the pitch class set [11]-{4567}-(0123). This motive is sequenced in the following measure (m. 17) transposed down a whole-step.

Ex. 2-12

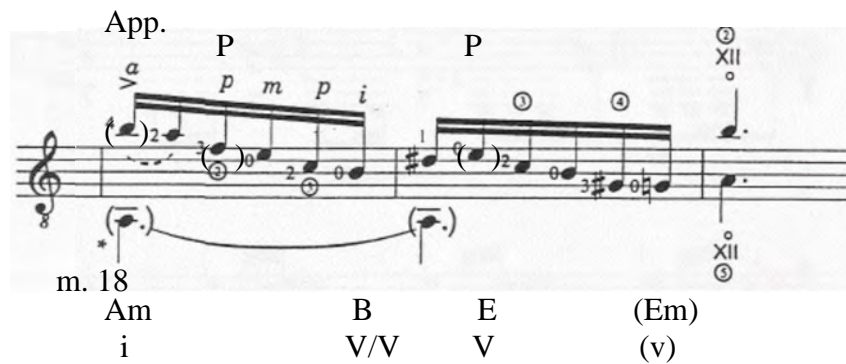
[11]-{4567}-(0123) [12]-{2345}-(0123)



m. 16

However, the following arpeggio (Ex. 2-13, mm. 18-19) presents tonal elements that imply a functional harmony.¹²

Ex. 2-13



An intervallic pattern is also present in the arpeggio between mm. 18 and 19. By analyzing the first note of m. 18 as an ornamental note, the subsequent pitches in the measure create a pattern of alternating major 3rds and semitones. Analyzing the first pitch of measure 19 as ornamental, results in a similar pattern; however, the last two pitches (G#4 and G4) are reversed thereby disrupting the pattern. This reversal of order intentionally obscures the leading tone relationship to A4 in m. 20 contradicting the tonal implications of the arpeggio and weakening the resolution.¹³

¹² The A3 in parenthesis with the asterisk indicates that all notes in the score in parenthesis are optional for the performer. This analysis will consider all pitches as being performed.

¹³ Also note that the resolution is weakened in two other ways. First, the A4 is harmonized with the dissonant interval of a major 9th B5. Secondly, the two pitches are sounded up an octave performed as natural harmonics.

Ex. 2-14

App <-4 -1 -4 -1 > App <-4 -1 (-3) -1 >

m. 18*

Although the material used in the arpeggio seems to have deviated from the initial sonorities, the intervals of a semitone and major third were present in the pitch class set [2]-{459E}-(0157), interval vector: 110121, of the opening phrase. Note that the minor third in the arpeggio is a result of the intentional avoidance of the leading tone resolution. The first appearance of the melodic major third was used in the cadence of the second phrase (Ex. 2-15, m. 5) but was concealed by the sequence of the *ti-ri-ti* motive.

Ex. 2-15

[4]-{459E}-(0157)

ti ri ti

m. 5 +4

After the cadence is a three-measure transition (Ex. 2-16, mm. 21-23) of strummed chords that leads to the restatement of the opening five measures. Rhythmically, these chords are placed to evoke the sense of a hemiola. The chords are constructed from the same pitch classes (E, A, A#, B) of the opening gesture, pitch class set [1]-{9TE4}-(0127), and is expanded with the addition of the pitch C# creating the set class [13]-{9TE24}-(01247).

Ex. 2-16

[13]-{9TE14}-(01247)



m. 21

Then, measures 24-28 are a restatement of the opening gesture (mm. 1-5) and conclude the first theme.

Ex. 2-17



m. 24

Second Theme

The second theme, in contrast to the first theme, is composed as a two-voice, contrapuntal texture in conjunct motion with a paradigmatic four-measure phrase. After the conclusion of the first theme, there is a two-measure transition (Ex. 2-18, mm. 29-30) composed of an ascending, D melodic minor scale leading to the motive of the second theme.

Ex. 2-18



m. 29

m. 31

Although the character of the second theme is clearly different than the first theme, the motivic and harmonic intervals of fourths/fifths and tritones are still an important factor of the

construction. In the beginning of the second theme (Ex. 2-19, mm. 31-34), the soprano voice moves by descending stepwise motion creating the outer interval of a perfect fourth between E5 and B4. The same procedure of filling the outer melodic interval of a perfect fourth with ancillary pitches was used in the first theme (m. 7). Note that each of these pitch class sets render the same set class (0135) but imply different tonalities.

Ex. 2-19

m. 7
First Theme
E Major

m. 31
Second Theme
E Minor

[6]-{431E}-(0135)

[14]-{E024}-(0135)

Nevertheless, the tonality implied by the soprano is obscured by the bass voice and the chord in m. 35. First, the tonal implications of the soprano voice is obfuscated by the contrary motion of the bass that ascends by semitones ultimately returning to F4, its initial pitch, creating a harmonic tritone between the bass's F4 and the soprano's B4.

Ex. 2-20

m. 31

Then, the sense of a tonal center is further obscured by the interruption of a chord that is arpeggiated (mm. 35-36) and then strummed as a hemiola (mm. 37-38).

Ex. 2-21

[15]-{ET974}-(01247)

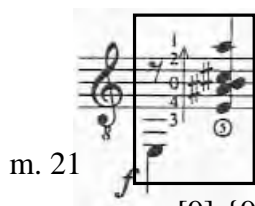


m. 35

Note that the chord consists of the pitch classes (E, A, A#, B) from the opening phrase with the addition of G5, a new pitch. These pitch classes (E, G, A, A#, B) create the pitch class set [15]-{ET974}-(01247). The first appearance of this set class (01247) was in the first theme (mm. 21-23).

Ex. 2-22

[15]-{ET974}-(01247)



m. 21

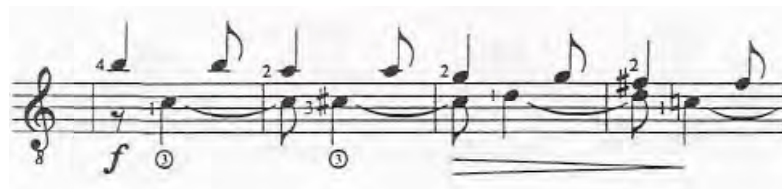
[9]-{9TE14}-(01247)



m. 37

Measures 39-42 restate the motive of the second theme (mm. 31-34) as an exact transposition transposed up a perfect fourth in both the soprano and bass voices.

Ex. 2-23



m. 39

The motive is sequenced (mm. 43-46) a whole step lower than mm. 39-42. However, instead of an exact transposition, this sequence of the motive retains the F#. ¹⁴ As a result, the motive, the restatement, and the sequence use pitches diatonic to E minor.

Ex. 2-24

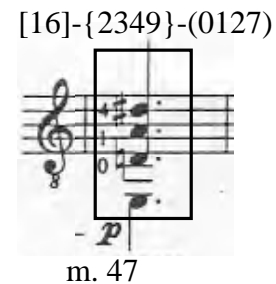
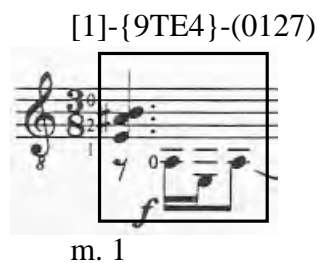


m. 43

Note that the soprano begins each of the three statements of the motive by beginning on one of the principal pitches: E5 (m. 31), B5 (m. 39) and A5 (m. 43). In E minor, these pitches represent the important scale degrees of tonic, dominant and subdominant ultimately resolving to the tonic E5 (m. 46).

The final statement is concluded with a chord (Ex. 2-25, m. 47) consisting of a transposition of the opening pitches, pitch class set [1]-{9TE4}-(0127), transposed up a perfect fourth.

Ex. 2-25



¹⁴ Consequently, the bass is also altered (m. 46) to end on Bb4 to keep the harmonic interval of a tritone consistent between the bass and the soprano.

The last chord of the second theme (Ex. 2-26, mm. 48-50), presented as a hemiola, forms the set class [17]-{ET964}-(01257). This chord contains the subset [17a]-{9TE4}-(0127) composed of the exact pitch class set of the opening gesture in measure 1 [1]-{9TE4}-(0127).

Ex. 2-26

[17]-{ET964}-(01257)

m. 48

Subset [17a]-{9TE4}-(0127)

Closing Theme

The closing theme (Ex. 2-27, mm. 51 – 68) is the most lyric theme (it is also marked *lirico*); the melody is constructed from the E Dorian scale consisting of four phrases.

Ex. 2-27

lirico

A

B

mf m. 51

C

A'

poco rall.

m. 59

1.

The first phrase (mm. 51-54) is divided into two parts. The principle pitch classes (A, B and E) are the main pitch classes used in the construction of the melody presented in the soprano voice. The first melodic motive (mm. 51-52) has a final goal of an ascending leap of a perfect fourth from E5 to A5 that is preceded by an embellishing leap of a minor third from E5 to G5. The leap of a perfect fourth is emphasized over the leap of a minor third through its metric accent in the measure. The interval is strengthened by the rhythmic setting of the resolution on A5 with the longer quarter note value and becomes an important structural point in the melody. The motive is sequenced (mm. 53-54) with a pick-up note (E5 in m. 52) and expands the ascending intervals functioning the same way as the previous motive and emphasizing the final leap of a perfect fifth from E5 to B5 (Ex. 2-28).

Ex. 2-28 Initial closing theme motive Sequenced motive with expanded intervals



The melody of phrase A is complimented with a contrapuntal bass line (Ex. 2-29, m. 51-54), which is an expanded ascending chromatic scale from A#4 through G5, concluding (in m. 54) with descending the tritones G5-C#5-G4. Note how the tritone created by C#5 is also the pitch that will give the following phrase the E Dorian characteristic.

Ex. 2-29

m. 51

Phrase B (Ex. 2-30, mm. 55-58) retains the same rhythm of phrase A, but the contour of the melody is altered. The focal point of the melody is drawn toward B5 by the same rhythmic accents used in the first phrase. The introduction of the pitch C#6 identifies the mode as E Dorian and is used as a pivot between B5 and the other two pitches of the melody (D6 and A4). The phrase ends on the melodic pitch B5 (m. 58), the fifth scale degree of E Dorian, evoking a half-cadence.

Ex. 2-30

m. 55

Also, the chromatic bass-line is abandoned and replaced with a dyad composed of the G4 from the previous gesture of descending tritones (m. 54) and F#5. Note that the pitch classes G, F# and C# create the set class (016).

Ex. 2-31

[18]-{761} [19]-{761} [20]-{761} [21]-{761}
(016) (016) (016) (016)

Phrase C continues in the tonality of E Dorian (Ex. 2-32, m. 59 – 68). The melody descends an octave from E5 down to E4 through a sequence of diatonic ascending seconds and descending thirds with the exception of a G#5.¹⁵

Ex. 2-32

The melody of phrase C is supported by an accompaniment composed of two voices: a bass voice and inner voice pedal on B4. The bass (m. 59) begins on D4 that is a result of a leading tone resolution from C#4 in m. 58. The bass ascends a perfect fourth from D4 to G4, descends by whole-steps to C#4, and ascends another perfect fourth to F#4 in m. 64. The sonority created between the bass and melodic voices beginning in mm. 60-64 renders cells of

¹⁵ Although G#5 is used in the progression (m. 62), it does not alter the mode in E Dorian because it is used as a chromatic leading tone to A5. Furthermore, the final interval of the sequence descends from G5 to E5 solidifying the E Dorian sonority.

the set class (016), which is achieved by eliminating the B4 pedal and excluding ornamental pitches in the melody. Note that in m. 61 the set class (016) would have been created by altering C#6 to C natural but would have deviated from the E Dorian sonority of the section.

Ex. 2-33

C

m. 59

[22]-{127} (016) (06) [23]-{983} (016) [24]-{761} (016) [25]-{761} (016)

The closing theme concludes with material from the phrase A but alters the end to achieve a cadence on E5 and is therefore labeled A' (Ex. 2-34, mm. 65-68). The bass reverses the resolution of C#4 to C4 (mm. 64-65) instead of D4, as in m. 59, and proceeds by step to resolve on E4 (m. 68). The B4 pedal is retained in the inner voice from the previous gesture (also used as a pedal in mm. 59-63).

The final chord contains A, B, and E, the principle pitch classes. Note that this is the first time the principal pitch classes have been presented in a block chord. The voicing of the chord places the pitch class E in the outer voices therefore establishing the pitch class E as the tonal center. The tonality of E is reinforced by the placement of the E3 on the *ti-ri-ti* rhythmic motive concluding the exposition in E Dorian, a dominant relation of A and prepares for the repeat of the exposition.

Ex. 2-34

A'

poco rall.

m. 65

[26]-{9E4}-(027)

Although the constructive intervals of a perfect fourth, perfect fifth, and tritone can be traced throughout the exposition, three distinct themes are presented. Note that García de León described Sonata No. 1, Op. 13, *Las Campanas* as a symbolic work that reflects the co-mingling of the Indian, European, and African cultures in Latin America. While he does not identify how these cultural influences are specifically represented in the sonata, the evidence that lies in the music leads to the following conclusions:

- 1) The first theme, which consists of perfect fourth/fifths and tritones as harmonic and motivic intervals, disjunct motives, mixed meter, rhythmic syncopation, rapid arpeggio/scale passages, and short irregular phrases, evokes the “primitive” music of the aboriginal Indians.
- 2) The second theme in contrast to the first theme, is composed as a two-voiced contrapuntal texture in conjunct motion with a regular, four-measure phrase that is characteristic of the European practice of counterpoint and form brought to the new world by the Spanish conquistadors and missionaries.
- 3) The lyrical closing theme contains the sonority, set class (016), of the Indian, the counterpoint and form of the European, and the modal melody evoking African cultures that collectively produced Mexico’s rich musical heritage of folk music.

These themes combine to create a tonal scheme in the exposition that loosely adheres to the traditional expectations in that the first theme has a tonal center of A (undefined mode), while the second theme (E minor) and closing theme (E Dorian) relate to the first theme as a type of dominant relationship.

CHAPTER 3

DEVELOPMENT: I. DIÁLOGOS CRIOLLOS (CREOLE DIALOGUES)

The development functions in the traditional sense exploring the possibilities of the thematic material presented in the exposition through the combination of motivic components, expanded sonorities, movement from one transient tonality to another, and the growth of new thematic material. The development begins (Ex. 3-1, m. 70) with a four-measure section that utilizes the material used to conclude the exposition. The section is composed of ascending chords over an E3 pedal point creating the *ti-ti-ri-ti* surface rhythm. The construction of the chords in mm. 70, 71, and 73 are based on the set classes (0127) and (0157) from the opening phrase (mm. 1-3).

However, a new type of chord construction emerges in m. 72. The chord is built from a four-note, whole tone scale starting from G⁴¹⁶, but the chord is actually a result of a planing technique that maintains the left hand fingering from the previous chord (m. 71) shifted up the fret board a minor third.¹⁷ Note that the chord is devoid of the perfect fourth/fifth intervals but maintains the interval of a tritone.

Ex. 3-1

End of the exposition →

m. 70

Open B string maintained

¹⁶ The first appearance of a whole tone scale fragment appears in mm. 60-63 in the bass voice.

¹⁷ The open B string from m. 71 is maintained as an open string in m. 72 but is not shifted up a minor third with the rest of the chord.

Ex. 3-1 (continued)

Up Stems	[27a]-{349} (016)	[28a]-{TE4} (016)	Whole-tone	[30a]-{ET4} (016)
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Down Stems

[27]-{2349} (0127)

[28]-{ET64} (0157)

[29]-{79E1} (0246)

[30]-{ET94} (0127)

m. 70

Measures 74-75 present a two-measure ascending scale transitioning to the next section. This is the same transition procedure used in the exposition between the first theme and the second theme. The pitches of the ascending scale compose an E major scale; however, the presentation of the E major scale is obscured by starting the scale on the leading tone (D#4) and ascending step-wise to C#5 at which the anticipated D#5 is omitted leaping to the E5.

Ex. 3-2

Transition

m. 74

The next section is composed with elements from the first and closing themes of the exposition. The section begins with two, superimposed ostinato figures. The top ostinato figure is derived from the first theme consisting of the principle pitches E5 and B4 set on the familiar *ti-ri-ti* rhythm. The lower ostinato figure is derived from the closing theme that consists of descending 3rds and ascending 2nds used in the phrase C. These ostinato figures remain consistent through m. 87.

Ex. 3-3

Top ostinato

m. 76

dolce

Lower ostinato

Pick-up note

In m. 80, the bass voice enters under the established ostinato figures with a modified statement of the closing theme two octaves lower than the exposition. The bass maintains the same pitch classes of phrase A of the original theme but alters phrase B in two places. The first alteration appears in m. 85 on the last beat replacing the pitch C# of phrase B with the pitch D. The second modification is in m. 86 where the A and C# of the exposition are reversed. However, the resolution remains the same (toward the pitch B).

Ex. 3-4

dolce

Closing theme
Phrase A

m. 80

Phrase B

Exposition: Closing theme

m. 56

The next five measures (Ex. 3-5, mm. 88-92) continue with a transposed phrase C of the closing theme in the bass using a new ostinato figure. The ostinato is a two-measure repeating

figure composed of three ascending pitches (E5-F#5-G5) in the first measure and transposed down a perfect fourth (B4-C#5-D5) in the succeeding measure. The bass also alters phrase C of the closing theme by transposing the phrase to A minor (the original was E Dorian).

Ex. 3-5

Phrase C of the closing theme transposed to A minor

Ostinato

m. 88

Another two-measure ascending scale (Ex. 3-6, mm. 93-94) is used as a transition. The scale is composed of a mixed mode that indicates A major in m. 93 while the following measure (m. 94) implies A minor.

Ex. 3-6

A major

A minor

m. 93

This transition leads to the first large cadential section (Ex. 3-7, mm. 95-100) of the development composed of the set class (0157) and (016) from the first phrase of the first theme. Measures 95 and 98 are composed of the set class (0157). Note that the intervals of the pitches in m. 95 and m. 98 (from lowest to highest) are voiced as stacked fourths with the initial interval of a tritone thus identical to the first presentation in the opening phrase of the exposition. The chord in m. 97 is composed of the set class (016), but the final chord (m. 100) presents the set class

(0167), a new set class, containing four possible subsets of (016): {349}, {43T}, {9T3}, and {T94}.

Ex. 3-7

m. 95 [31]-{E046} (0157)

[32]-{54E} (016)

[33]-{9T24} (0157)

[34]-{349T} (0167)

Pick-up note to next phrase

The next eight-measure phrase (Ex. 3-8, mm. 101-108) begins with a pick-up note (A3) from m. 100 (Ex. 3-7) leading to an altered version of the closing theme. Recall that the original closing theme was composed in E Dorian. Note that this version is in D Lydian. Above the bass, the soprano voice is an exact restatement of the second theme (Ex. 2-18, 2-19, mm. 39-46). This phrase is punctuated with a transposed version of the opening chord, pitch class set [1]-{9TE4}- (0127), placed on the *ti-ri-ti* rhythm (Ex. 3-8, m. 109).

Ex. 3-8

Second theme from exposition mm. 39-46

mf cantando el baso

m. 101 Closing theme in D Lydian

[35]-{2349}-(0127)

f

m. 109

Once again, a two-measure ascending scale is used as a transition. The pitches of the scale form a D major scale, but like the previous transition in mm. 74-75, this scale begins on the leading tone of D major (C#). However, now the scale is presented in stepwise motion leading directly to the D5 in m. 112.¹⁸ (Ex. 3-9)

Ex. 3-9

Transition



The D5 (m. 112) is elided with a presentation of the second theme transposed to G major in the bass voice (mm. 112-119) as the soprano voice presents an ostinato figure based on the *ti-ri-ti* motive. Two of the three principle pitch classes (E and B) create an outer interval of a perfect fourth embellished by the pitch G#. Consequently, an E major triad is created, and the ostinato in E major juxtaposed against the second theme in G major is an instance of bitonality. Note that these two chords are associated as a chromatic mediant relationship.

Ex. 3-10

Ornamental pitch

P4

m. 112

Second theme in G major

simile

rall.

m. 115

Second Theme in G major

The image shows two staves of musical notation. The top staff is in treble clef with a key signature of one sharp (F#). It shows a melodic line with an ornamental pitch (C#5) and a perfect fourth interval (P4) between C#5 and G#4. The bottom staff is in bass clef with a key signature of one sharp (F#). It shows a melodic line with an ornamental pitch (C#5) and a perfect fourth interval (P4) between C#5 and G#4. The notation includes fingering numbers and dynamic markings like 'simile' and 'rall.'. Brackets labeled 'm. 112' and 'm. 115' are placed below the staves. The text 'Second theme in G major' and 'Second Theme in G major' are placed below the staves.

¹⁸ The scale is not a C# Locrian scale because the C#5 functions as the leading tone resolving to the D5 in m. 112.

The next section functions as a transition (Ex. 3-11, 3-12, 3-13, 3-14, mm. 120-127).

Instead of the two-measure ascending scale, block chords strummed as a hemiola followed by ascending arpeggios are developed from the first theme. Note that the beginning of the passage presents sonorities closely related to the first theme. However, by the end of the passage the pitch collections have mutated to encompass new sonorities.

The section begins (mm. 120-121) with an extension of the four-note set class (0157) that was used in the first phrase. Recall that the first presentation of this sonority was stacked fourths with the initial interval of a tritone (m.2). The same quality exists with the pitch collection in mm. 120-121 (C, F#, B, E, and A) forming pitch class set [36]-{0E964}-(01368). These pitches can be arranged to form stacked fourths with the initial interval of a tritone although this is not reflected in the voicing. Then, in measure 122, pitch class set [37]-{9TE4}-(0157) is used as an arpeggio consisting of the pitch classes from the opening pitch class set [1]-{9TE4}-(0127).

Ex. 3-11

[36]-{0E964}-(01368)

mf

m. 120 Subset [36a]-{E046}-(0157)

[37]-{9TE4}-(0157)

cresc. poco a poco

m. 122

The next chord presented in hemiola (Ex. 3-12, mm. 123-124) contains the pitch collection C, D#, A#, B, G producing the pitch class set [38]-{TE124}-(01347), interval vector: 213211. Note the infrequent presence of fourths/fifths and tritones in the interval vector. However, the sonority does contain the subset (016). In fact, the sonority can be analyzed as a G major chord coupled with semitone neighbors.

Ex. 3-12

Subset [38a]-{127}-(016)

m. 123

[38]-{21ET7}-(01347)

G major

Semitone neighbors

The following ascending arpeggio produces the pitch class set [39]-{2347T}-(01258). Nevertheless, it is still related to the initial sonorities through the subset [39a]-{439}-(016), and there is still the presence of a major triad (D# major) with semitone neighbors.

Ex. 3-13

[39]-{2347T}-(01258)

m. 125

Subset [39a]-{439}-(016)

D# major

Semitone neighbors

The last chord presented as a hemiola creates the set class [40]-{1ET96}-(02347), interval vector: 222220 (Ex. 3-14, mm. 126-127). Note that this is the first block chord sonority in this section that does not contain a tritone. However, it is still related to the previous sonorities because it contains the subset [40a]-{1E6}-(027), which is the same set class created by the three principal pitch classes A, B, and E {E94}-(027), and contains a major chord (F# major) with semitone neighbors.

Ex. 3-14

[40]-{1ET96}-(02347)

molto rall.

Subset [40a]-{1E6} (027) F# major

Semitone neighbors of {T}

m. 126

The next section (Ex. 3-15, mm. 128-132) begins with an ostinato figure in the soprano voice on the *ti-ri-ti* rhythm. The outer interval of the motive is a perfect fifth; however, the fifth is divided with the pitch B, an ornamental pitch, which obscures the perfect fifth. This is similar to the ostinato figure used in m. 112, but the contour is inverted.

Ex. 3-15

[41]-{9E2}-(025) [42]-{9E2}-(025) [43]-{9E2}-(025)

m. 128 *mp* New melodic material

rall.

[44]-{247}-(025) P T [45]-{9E2}-(025)

The bass voice begins with what initially seems to be a complimenting ostinato figure with D4 and A3 (mm. 128-129).¹⁹ However, the A4 (m. 129) with an accent mark signals the entrance of new melodic material based on the pitch collection A, B, and D, set class [41]-{9E2}-(025), presented by the ostinato figure introduced in the soprano (m. 128). Note how set

¹⁹ Similar to the procedure used in mm. 76-87.

class (025) is the basis for the majority of the melodic material segmented in pitch class sets of {9E2}-(025) or {247}-(025), (Ex. 3-15).

Tonally, this section is based on a D major pentatonic scale and evokes an element of folk music generally associated with this scale.²⁰ Consequently, the harmonic movement is stagnant which is also a characteristic of the pentatonic scale.

Ex. 3-16

m. 128

mp D6 I

NCT

Em7 ii7

D6 I

PT (3)

rall.

Am9

Pick-up to m. 138

The next section (Ex. 3-17, 3-18, 3-19, 3-20, mm. 138-155) returns to material derived from the first theme's angular melodies, arpeggios, and the use of the *ti-ri-ti* rhythm. However, the harmony is increasingly becoming tonal. The tonal center of pitch class A is immediately established in the bass voice through the pick-up note E3 (m. 137) functioning as the dominant of A. This dominant/tonic relationship is echoed again in mm. 140 and 141. The establishment of the bass as the fundamental root of the harmony allows a tonal analysis of the melody and harmony as extended harmonies (Ex. 3-17, mm.138-141).

²⁰ The D major pentatonic scale is extended to include the G4 m. 133.

Ex. 3-17

A tempo

m. 138

A13 I

A9 (E) (V) A9 (E) (V)

Although the aural effect of the arpeggio is tonal, the constructive intervals of perfect fourths/fifths are still present (mm. 138-139). Note that the A13 does not contain the pitch G (the 7th of the A13 chord) therefore the pitch collection used in the arpeggio generates a sequence of either perfect fourths (C#, F#, B, E, A, D) or perfect fifths (D, A, E, B, F#, C#). This may explain why the 11th (D) is not altered to D#, a typical jazz practice, to avoid the semitone dissonance with the 3rd of the chord (C#).

Measures 142-143 repeat the cascading figure, but the subsequent chord is altered obscuring the sense of an A tonality. The pitch A3 is still present in the bass, but the upper voices are composed of an F octave divided in half with the pitch B4 creating a tritone (mm. 144-145).

Ex. 3-18

m. 142

[46]-{E95}-(026)

m. 144

The next figure continues with a tonal sonority and is related to the previous section as a sequential modulation. The tonal focus is now shifted to D major and can be analyzed using extended harmonies (Ex. 3-19, mm. 146-149).

Ex. 3-19

[47]-{T94}-(016)

D Maj.9 A D Maj.9

I V I

m. 146

In measure 149 (Ex. 3-19), the tonality is obscured by altering A4 to A#4 thus creating the pitch class set [47]-{T94}-(016). This leads to the dissonant sonorities [48]-{43E9}-(0157), [49]-{21ET8}-(01346), and [50]-{ET94}-(0127) all of which contain the subset (016) in mm. 150-152 (Ex. 3-20).²¹ Although the dissonant sonorities obscure the sense of a tonal center, the reiteration of the bass on E3 with the *ti-ri-ti* rhythm establishes E as the tonal center. Then, the pitch class E becomes the dominant of pitch class A realized by the descending scale-figure in mm. 153-155. The descending scale-figure, in conjunction with the bass, outline a IV-I-V7 chord progression in A major.

²¹ In m. 152, the natural symbol is incorrectly placed on A5. It should be placed on B5. This is confirmed by the fingering.

Ex. 3-20

[48]- {43E9} (0157) [49]- {21ET8} (01346) [50]- {ET94} (0127)

m. 150 *mf* *cresc.*

[48a]- {349} (016) [49a]- {218} (016) [50]- {TE4} or {T94} (016) (016)

m. 153

D IV A I E7 V7

The tonality of A major established in mm. 154-156 (Ex. 3-21) is continued in measures 156-163. Both the soprano and bass voices from mm. 153-155 converge to meet on A3 on the downbeat of m. 156. Above the A3, the soprano voice presents a statement of the closing theme harmonized by two chords that alternate from measure to measure. Note that the soprano voice is an exact restatement of the closing theme presented in the exposition (mm. 51-58). Observe that the closing theme presented in the exposition was in E Dorian, but because of the preceding measures (mm. 154-156), the strong tonal movement of the bass, and the inner voices functioning as extended harmonies, the presentation of this closing theme is in A major.

Ex. 3-21

trionfal

A Closing theme B

A9 Bm7b9 A9 Bm7b9 A9 Bm7b9 A9 Bm7b9

m. 156 D D D D

The closing theme is interrupted (Ex. 3-22, mm. 164-169) by material that was first presented in the development in mm. 95-100.

Ex. 3-22

m. 164

However, the end of the closing theme returns with the phrase A' in mm. 170-173 (that coincide with mm. 65-68 of the exposition) to conclude the development. The melodic material in mm. 170-173 (Ex. 3-23) is an exact restatement of the material presented in the exposition (mm. 65-68) but harmonized with the extended chords A9 and Bm7b9/D. The movement away from tertian harmony begins in m. 172 with a minor second-rich sonority that can be segmented to form the pitch class set [51]-{0ET6}-(0126) because the G5 functions as an appoggiatura to the F#5. Then, the chord in m. 173 expands the use of harmonic minor seconds by pairing three open strings of the guitar (A, G, and E) with semitone neighbors (Bb, Ab, and F) to form the pitch class set [52]-{T98754}-(012356), interval vector: 433221, resulting in an unstable chord and the

end of the development. Note that both of the set classes [51]-{0ET6}-(0126) and [52]-{T98754}-(012356), contain the subset (016).

Ex. 3-23

Closing theme Phrase A'

molto rall.

m. 170

A9

Bm7b9
D

[51]-{0ET6}-(0126)

[52]-{T98754}-(012356)

[51a]-{0E6}-(016)

[52a]-{T94}-(016)

Although the development expands the intervallic, melodic, and harmonic setting of the thematic material of the exposition, the initial intervals of a perfect fourth, perfect fifth, and tritone remain present in the melodic contour, ostinatos, and extended harmonies. The presence of tertian and extended harmonies does not seem incongruent with the overall sonority because many of the sonorities can be traced back to the initial set classes (0127), (0157), and their shared subset (016), presented in the first phrase of the exposition. Note how the interval of a semitone present in set class (016) is exploited in the development to mask tertian harmonies (Ex. 3-12,3-13,3-14) and is the dominant interval used in the dissonant chord to conclude the development (Ex. 3-23).

CHAPTER 4

RECAPITULATION: I. DIÁLOGOS CRIOLLOS (CREOLE DIALOGUES)

The recapitulation begins in m. 174 as an exact restatement of the exposition through measure 209 (Ex. 4-1). This consists of the first theme (mm. 174-201), the transition (mm. 202-203) and the beginning of the second theme (mm. 204-209).

Ex. 4-1

Recapitulation
First Theme

The musical score for Ex. 4-1 is presented in three systems. The first system begins with the tempo marking *molto rall.* and includes a key signature change to one sharp (F#). It features a melodic line in the upper voice and a bass line with chords. A measure rest of 4 measures is indicated. The second system starts at measure 174, marked *A tempo*, and continues the melodic and harmonic material. The third system continues the piece, marked *f* (forte). The score includes various musical notations such as notes, rests, and dynamic markings. The key signature changes back to one flat (Bb) in the second system.

m. 174

Transition Second Theme

m. 202 m. 204

Deviates from Exposition

The final system of the score is marked *rall.* (rallentando) and includes a key signature change to one flat (Bb). It features a melodic line in the upper voice and a bass line with chords. A measure rest of 2 measures is indicated. The system concludes with a key signature change to one sharp (F#) and a dynamic marking of *mp* (mezzo-piano).

However, the recapitulation diverges from the exposition by exchanging the G5 of the original statement with the F5 in the arpeggio figure (Ex. 4-2, mm. 208-209). The pitch classes in mm. 208-209 form pitch class set [53]-{457TE}-(01367). A sequence of the arpeggio is presented in the following measures (mm. 210-211), which is an atonal inversion of the arpeggio from mm. 208-209, forming pitch class set [54]-{ET854}-(01367). Therefore, the two pitch collections form the set class (01367). Note that the set class (01367) contains four possible subsets of (016): {45T}, {54E}, {TE4}, and {ET5}.

Ex. 4-2

Exposition

m. 35

Altered Pitch

[53]-{457TE}-(01367)

m. 208

m. 210 [54]-{ET854}-(01367)

rall.

The consequence of these altered arpeggios is that the arpeggio in m. 210 clearly presents an E major chord. Immediately following the E chord are two semitone neighbors of the chord (F and Bb: m. 211).²² However, the E major chord functions as the dominant of A. Note that both the bass and soprano voices resolve the G# leading tone to A, although the resolution is rendered unstable by the D# that creates a tritone between the octave (m. 212).

²² This is similar to the chords presented in mm. 123-127 that consists of a major chord with two semitone neighbors.

Ex. 4-3

Leading tone resolutions

m. 210

E
V

A

This leads to the punctuating chord of the arpeggio (Ex. 4-4, mm. 213-215) consisting of the principle pitch classes A, B, and E with the addition of the pitch class D#. This pitch collection forms the pitch class set [55]-{43T9}-(0157). Notice that this is a transposition of the pitch classes from the opening sonority [2]-{459E}-(0157), (mm. 2-3).

Ex. 4-4

[55]-{9E34}-(0157)

CV

tamb.

ff

m. 213

Measure 216 marks the restatement of the closing theme of the exposition transposed from E Dorian to A Dorian. The melodic material is an exact transposition from mm. 216-233 (Ex. 4-5).

Ex. 4-5

Ex. 4-5 musical score, measures 216-219. The score is in treble clef, 3/8 time, and features a chromatic line. It is divided into sections A, B, C, A', and Codetta. Section A starts at m. 216 with a mezzo-forte (mf) dynamic. Section B follows. Section C is marked CII. Section A' is marked CII and ends with a fortissimo (ff) dynamic. The Codetta section ends with a 4'10" time signature.

However, the bass (Ex. 4-6, mm. 216-219), though similar to the exposition, is modified. First, in m. 216 the bass begins on D instead of D# which would have kept an exact transposition, began the phrase with the harmonic interval of a tritone, and maintained the chromatic line. Second, the A in m. 218 is displaced down an octave instead of converging to a unison pitch consequently disrupting the chromatic line.

Ex. 4-6

Ex. 4-6 musical score, comparing the Exposition and Recapitulation of measures 51 and 216. The top staff is the Exposition, marked *lirico* and *mf*, starting at m. 51. The bottom staff is the Recapitulation, marked *mf*, starting at m. 216. Both sections are labeled 'A' and show a chromatic line. The Recapitulation starts on a lower pitch than the Exposition.

In mm. 220-223 (Ex. 4-7) the harmonization is consistent with the exposition with the use of semitones on the scale degrees $\hat{2}$ and $\hat{3}$. However, there is an addition of a bass line that consists of pitch classes A and E outlining the tonic/dominant relationship and strengthening the tonal center of A.

Ex. 4-7

Exposition

m. 55

Recapitulation

Additional bass line

m. 220

Omits B4

From mm. 224-233 (Ex. 4-8), the closing theme is represented with an exact transposition of the corresponding section from the exposition (mm. 59-68) except for the final resolution (m. 233). In the exposition, the resolution (m. 68) is to a chord composed of the principle pitch classes A, B, and E followed by the single pitch E3. However, the pitch A is clearly presented in octaves as the tonal focus on the strong beat of the measure. Then, followed by the opening sonority, pitch class set [1]-{9TE4}-(0127) is transposed to pitch class set [56]-{4329}-(0127) and echoed on the *ti-ri-ti* rhythm.

Ex. 4-8

Ex. 4-8

m. 224 A'

m. 230

m. 233 ff

[56]-{4329}-(0127)

Exposition

m. 68

The movement is concluded with a four-measure codetta (Ex. 4-10, mm. 234-235) that presents a dissonant chord as the same hemiola rhythm presented in the first theme (mm. 21-22). The chord is based on the pitch class set [2]-{459E}-(0157), from the first phrase. Remember that this is the pitch collection that was voiced with the initial harmonic interval of a tritone followed by two stacked harmonic perfect fourths.

However, the voicing of pitch class set [57]-{459E}-(0157) alters the function of the chord. The effect of the voicing is that the ascending intervals still consist of predominantly perfect fourths, an augmented fifth, and a tritone, but the E3 anchoring the chord creates a dominant E(b9 add11)²³. The dominant E(b9 add11) chord is resolved to the unison A's

²³ Note that the E#4 functions as the b9 of the chord

concluding the movement (mm. 236-237). Note that the resolution to unison A's allows the tonality of the movement to be undefined as A major, minor or any other mode.

Ex. 4-9

[57]-{459E}-(0157)

E(b9 add11) Tonal goal A

Although the tonality of the recapitulation is not defined as major, minor or modal, there is a consistent tonal center toward the pitch class A. Consequently, this loosely fulfills the tonal expectation of the sonata-allegro form that restates the themes presented in the recapitulation in the tonic key. Note that instead of transposing the second theme to A minor the theme was truncated and only the first motive is stated.

CHAPTER 5

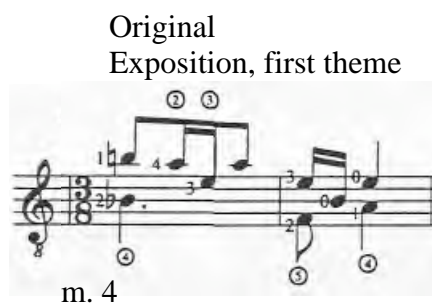
PERFORMANCE ISSUES

Suggested Fingerings

The following suggested fingerings are alternatives that provide an easier left hand and/or right hand movement while maintaining the integrity of the music (i.e. separation of the voices, realize full note values, consistent timbre while playing scale passages).

Ex. 5-1: The suggested fingering uses finger 2 as a guide finger on the fourth string to move back to first position. This fingering allows for the consistent articulation of the E5 of the *ti-ri-ti* motive in the soprano voice as an open string.

Ex. 5-1



Suggested fingering



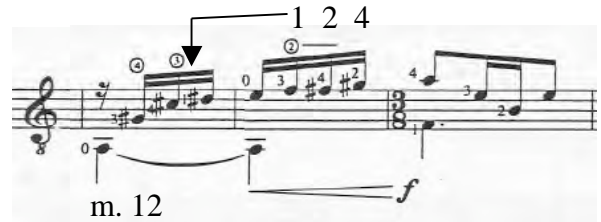
Ex. 5-2: The suggested fingering uses finger 1 as a guide finger that shifts to 6th position over the open string E5 and finger 4 as a guide finger from the G#5 to the A5. Shifting over an open string eliminates the difficulty to maintain a legato articulation while the guide of the fourth finger maintains a better left hand position.

Ex. 5-2

Original
Exposition, first theme



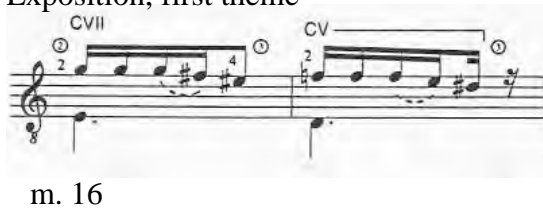
Suggested fingering



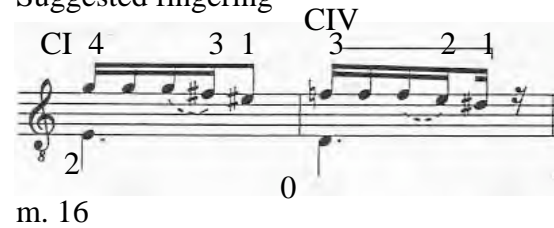
Ex. 5-3: The suggested fingering maintains the chromatic movement on a single string. This avoids a string crossing and, consequently, the difficulty of keeping a consistent articulation and timbre between the two strings.

Ex. 5-3

Original
Exposition, first theme



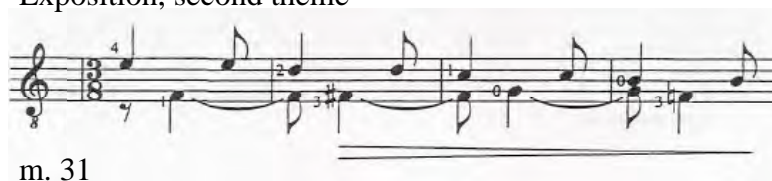
Suggested fingering



Ex. 5-4a-c: The second theme presents a two-voice contrapuntal texture in contrary motion. In each statement of the four-measure phrase, the suggested fingering maintains each voice on a string creating a consistent separation and timbre of each voice.

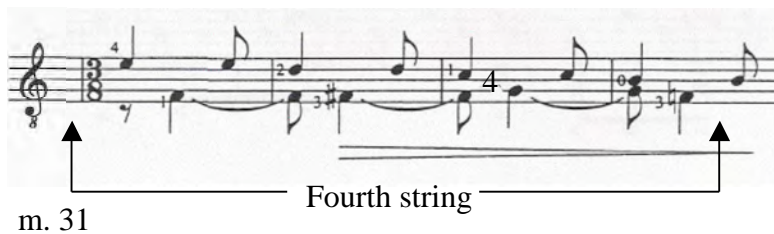
Ex. 5-4a

Original
Exposition, second theme



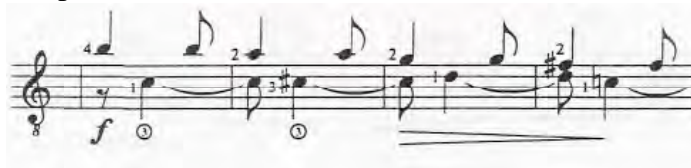
Ex. 5-4a (continued)

Suggested fingering



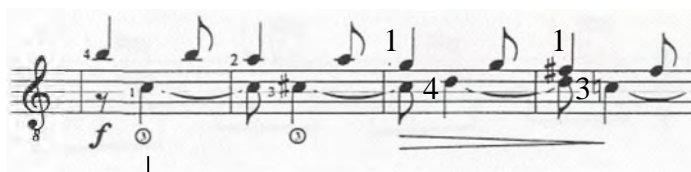
Ex. 5-4b

Original
Exposition, second theme



m. 39

Suggested fingering

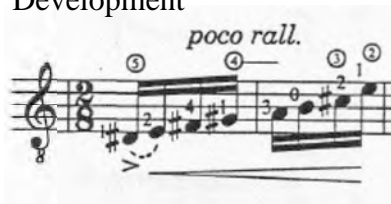


m. 39

Ex. 5-5: The suggested fingering eliminates cross string fingerings and allows the left hand to remain in 6th position without a shift.

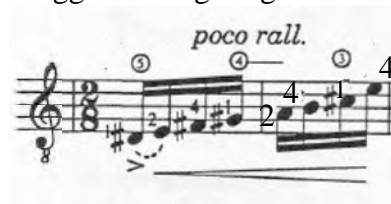
Ex. 5-5

Original
Development



m. 74

Suggested fingering



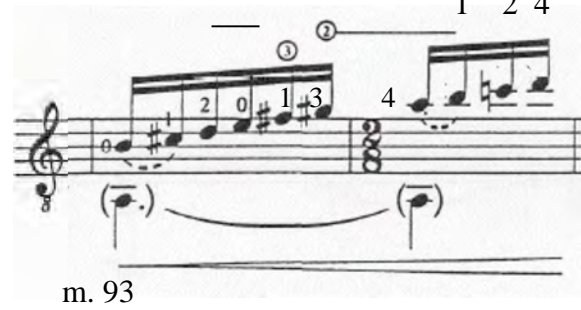
m. 74

four frets.

Ex. 5-6

Original
Development

Suggested fingering



guide finger on the fourth string.

Ex. 5-7

Original	Recapitulation
<p> $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ $\frac{1}{4} \times \frac{1}{4} = \frac{1}{16}$ $\frac{1}{16} \times \frac{1}{16} = \frac{1}{256}$ $\frac{1}{256} \times \frac{1}{256} = \frac{1}{65,536}$ $\frac{1}{65,536} \times \frac{1}{65,536} = \frac{1}{4,294,967,296}$ $\frac{1}{4,294,967,296} \times \frac{1}{4,294,967,296} = \frac{1}{18,446,744,073,709,551,616}$ </p>	<p> $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ $\frac{1}{4} \times \frac{1}{4} = \frac{1}{16}$ $\frac{1}{16} \times \frac{1}{16} = \frac{1}{256}$ $\frac{1}{256} \times \frac{1}{256} = \frac{1}{65,536}$ $\frac{1}{65,536} \times \frac{1}{65,536} = \frac{1}{4,294,967,296}$ $\frac{1}{4,294,967,296} \times \frac{1}{4,294,967,296} = \frac{1}{18,446,744,073,709,551,616}$ </p>



m. 216

Suggested fingering



m. 216

between the positions.

Ex. 5-8

Original
Recapitulation

Original musical score for Ex. 5-8. The score is in 4/4 time and features a treble and bass staff. The key signature has one sharp (F#). The piece begins with a treble staff containing a half note G4 and a quarter note A4. The bass staff contains a half note F#3 and a quarter note G3. A bracket labeled 'CII' spans the first two measures. The third measure contains a half note G4 and a quarter note A4. The fourth measure contains a half note F#4 and a quarter note G4. The fifth measure contains a half note G4 and a quarter note A4. The sixth measure contains a half note F#4 and a quarter note G4. The seventh measure contains a half note G4 and a quarter note A4. The eighth measure contains a half note F#4 and a quarter note G4. The piece ends with a double bar line. The dynamic marking 'ff' is present at the end of the piece.

m. 231

Suggested fingering

Suggested fingering musical score for Ex. 5-8. The score is in 4/4 time and features a treble and bass staff. The key signature has one sharp (F#). The piece begins with a treble staff containing a half note G4 and a quarter note A4. The bass staff contains a half note F#3 and a quarter note G3. A bracket labeled 'CII' spans the first two measures. The third measure contains a half note G4 and a quarter note A4. The fourth measure contains a half note F#4 and a quarter note G4. The fifth measure contains a half note G4 and a quarter note A4. The sixth measure contains a half note F#4 and a quarter note G4. The seventh measure contains a half note G4 and a quarter note A4. The eighth measure contains a half note F#4 and a quarter note G4. The piece ends with a double bar line. The dynamic marking 'ff' is present at the end of the piece.

m. 231

CHAPTER 6

SUMMARY AND CONCLUSION

Ernesto García de León composes music from a specific perspective as a native from Jáltipan, Veracruz, Mexico. As previously discussed, his music is the result of his desire to express abstract memories, feelings, and places of his past.²⁴ In Sonata No. 1, Op. 13, *Las Campanas*, García de León aspires to evoke his memory of the bells and belfry of the Catholic Church from his hometown of Jáltipan that, to him, symbolize the merging of the cultures of the aboriginal Indians, Europeans and Africans in Mexico.

Musically, these cultures are represented by themes that are merged in the large, traditional sonata-allegro form. The composition unfolds to present the first theme consisting of dissonant sonorities, disjunct motives, mixed meter, rhythmic syncopation, rapid arpeggio/scale passages and short, irregular phrases. These musical elements are used to represent the “primitive” music of the aboriginal Indians.

The harmonic language used to create the dissonant sonorities and disjunct motives are based on the intervals of the perfect fourth, perfect fifth (the inversion of the perfect fourth) and the tritone. These intervals are combined in the initial phrase of the movement to create pitch class sets that are members of the set classes (0127) and (0157) which contain the basic sonorities that are diminished and augmented throughout the theme and the entire movement. The set class (016) contained in both set classes (0127) and (0157), as well as other pitch collections, is utilized to maintain a seamless transition between quartal and tertian sonorities.

²⁴ Ernesto Garcia de Leon, *Some Reflections On My Music*, Translated by Pedro Haley (unpublished 1999).

Although the harmonic language extends the boundaries of tonality, the sense of a tonal goal toward pitch class A is maintained throughout the theme.

The second theme, in contrast to the first, is composed as a two-voice, contrapuntal texture in conjunct motion with a paradigmatic, four-measure phrase that is characteristic of the European practice of counterpoint and form. A traditional tonality, E minor, is also suggested, but the overall sonority established in the first theme is preserved through the use of the intervals of a perfect fourth, perfect fifth, tritone, and chords based on these intervals.

The closing theme is the synthesis of the three cultures including the sonority that consists of set class (016) used in the first theme of the aboriginal Indian, the counterpoint and form of the European, and the modal E Dorian melody evocative of the African culture that collectively produced the distinct folk music of Veracruz.

These themes are explored in the development by expanding the intervallic, melodic and harmonic elements. The tonal landscape is extended to encompass major, minor, and modal tonalities. However, the initial intervals of perfect fourths, perfect fifths, tritones, and the sonorities produced by the combination of these intervals remain present in the melodic contour, ostinatos and extended harmonies.

The recapitulation restates the themes of the exposition. Although the harmonic language extends the limits of traditional harmony, pitch class A is established as the tonal center of the recapitulation. The final cadence of the movement exploits the properties of the sonority composed of perfect fourths, perfect fifths and a tritone creating a dominant sonority resolving to a satisfying conclusion on unison A's. Therefore, the tonal implications of the exposition and recapitulation loosely fulfill the tonal expectations of the sonata-allegro form.

The first movement of Sonata No. 1, Op. 13, *Las Campanas* exemplifies the compositional style of Ernesto García de León because, as his programmatic title *Diálogos Criollos* (Creole Dialogues) suggests, it evokes the abstract concept of a conversation among the cultures of Veracruz. The constructive intervals of the perfect fourth, perfect fifth (the perfect fourth's inversion) and tritone create a cohesive element present throughout the movement. However, García de León does not limit the compositional possibilities of these intervals. Instead, he allows the sonority to unfold to encompass major, minor and modal tonalities to achieve his ultimate goal of expressing the intangible memories of his heritage.

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