

2014

Roque Cordero Soliloquio No. 6 and Sonata for Cello and Piano: Structure and Analysis

Isaac Miguel Casal R.

Louisiana State University and Agricultural and Mechanical College

Follow this and additional works at: https://digitalcommons.lsu.edu/gradschool_dissertations



Part of the [Music Commons](#)

Recommended Citation

Casal R., Isaac Miguel, "Roque Cordero Soliloquio No. 6 and Sonata for Cello and Piano: Structure and Analysis" (2014). *LSU Doctoral Dissertations*. 2702.

https://digitalcommons.lsu.edu/gradschool_dissertations/2702

This Dissertation is brought to you for free and open access by the Graduate School at LSU Digital Commons. It has been accepted for inclusion in LSU Doctoral Dissertations by an authorized graduate school editor of LSU Digital Commons. For more information, please contact gradetd@lsu.edu.

ROQUE CORDERO *SOLILOQUIO NO. 6* AND *SONATA FOR CELLO AND PIANO*:
STRUCTURE AND ANALYSIS

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Musical Arts

in

The School of Music

by
Isaac M. Casal Rodriguez
B.M., Florida International University, 2005
M.M., Baylor University, May 2007
May 2015

Acknowledgements

First I would like to thank my major professor, Dennis Parker, for his friendship, nurturing and guidance, and for encouraging me to break my own parameters at all times and look for new ideas and things of interest. I feel myself a better musician and cellist because of his teaching.

I would also like to thank my committee members Dr. Robert Peck, Professor Yung Chiao Wei, and Professor Jenna Tedrick Kuttruff for being on my committee, and for assisting me in the completion of this project.

Special thanks, to my colleague, friend, and a wonderful pianist Liudmila Georgiesvkaya, for collaborating in our performance of the Cello Sonata. Thanks to my friends Mauricio Alvarez, Jacob Gran, Loraine Roy, Josue Ramirez, Sinmyung Min, Alvaro Angulo, Alvaro Pereiro, Sussanah Montandon, and Mr. Claude Grenier for their friendship and support, feedback and suggestions. Thanks to all members of our cello studio for listening to my preparatory performances of Cordero's "Soliloquio" and the "Sonata." Finally, I would like to thank M. Dimitri Cordero, Marie Labonville, Mr. Iwasaki, Mrs. Odnoposoff, and Mr. Gutierrez for giving me their feedback about Mr. Cordero, his pieces, and for sharing some insights on his approach and performance with me.

I have to thank my super wonderful wife Valeria who always encourages me and inspires me to give my best. I want to thank my brother Luis, David and my sister Paola Casal for their love and encouragement in everything. Lastly, to my parents, thank you for giving the best of yourselves and supporting me in this musical journey.

Table of Contents

Acknowledgements	ii
List of Figures.....	iv
Abstract.....	ix
Introduction	1
Roque Cordero's Life, Legacy, and Selected Works	3
Cordero's Life.....	4
Cordero's Legacy.....	8
Compositional Style	9
Cordero's selected works for cello	11
Sonata for Cello and Piano.....	11
Soliloquio No.6 for Cello Solo.....	13
Structure and Analysis of Selected Works	16
Sonata for Cello and Piano	18
First Movement: Allegro Molto Appassionato.....	21
Second Movement: Adagio.....	35
Third Movement: Vivace	43
Soliloquio No. 6 for Cello Solo	65
First Movement: Adagio - Allegretto.....	67
Second Movement: Largo e tristo	77
Third Movement: Allegro vigoroso	85
Conclusion.....	99
Bibliography	100
Annex A: Dissertations, thesis, and essays on Roque Cordero	102
Appendix I: Letter of Permission	104
Appendix II: Letter of Permission.....	105
Appendix III: Roque Cordero Artistic Advisor of ASM Festival	107
Appendix IV: Recital Program.....	108
Appendix V: ASM Festival Homage to Roque Cordero.....	109
Vita	110

List of Figures

Figure 1: Matrix used in the Sonata for Cello and Piano	19
Figure 2: Overall structure of the Sonata for Cello and Piano	20
Figure 3: Rows used in the first movement.....	21
Figure 4: Form diagram of the <i>Allegro molto appassionato</i> movement.	21
Figure 5: Cordero: Cello Sonata, mvmt. I, mm. 1 – 9.....	22
Figure 6: Cordero: Cello Sonata, mvmt. I, mm.15 – 25. Ending of section (a1) - beginning of section (a2).....	23
Figure 7: Cello Sonata mvmt. I, mm. 46 – 49.	24
Figure 8: Cordero: cello Sonata mvmt. I, mm. 50 -55.....	25
Figure 9: Cordero: Cello Sonata, mvmt. I, mm. 74-76. Ending of (b2).	26
Figure 10: Cordero: Cello Sonata, mvmt. I, mm. 74-82.....	27
Figure 11: Cordero: Cello Sonata, mvmt. I, mm. 85-94. (a5) theme group.	28
Figure 12: Cordero: Cello Sonata mvmt. I, mm. 103-104.....	29
Figure 13: Cordero: Cello Sonata, mvmt. I, mm. 106-108.....	30
Figure 14: Cordero: Cello Sonata, mvmt. I, mm. 116-118.....	30
Figure 15: Cordero: Cello Sonata, mvmt. I mm.131-133.....	31
Figure 16: Cordero: Cello Sonata, mvmt. I, mm.146-149.....	32
Figure 17: Cordero: Cello Sonata, mvmt. I, mm. 164-169.....	33
Figure 18: Cello Sonata mvmt. I, mm. 170-173.....	33
Figure 19: Cordero: Cello Sonata, mvmt. I, mm. 174-177.....	34
Figure 20: Cordero: Cello Sonata, mvmt. I, mm. 182-185.....	34
Figure 21: Form diagram of the <i>Adagio</i> Movement.....	35
Figure 22: Rows used in the second movement.	36
Figure 23: Cordero: Cello Sonata, mvmt. II, mm 1-9.	37

Figure 24: Direction on how to use extended techniques on the piano.....	38
Figure 25: Cordero: Cello Sonata, mvmt. II mm. 14-20.	39
Figure 26: Cordero: Cello Sonata, mvmt. II, mm. 31-38.	39
Figure 27: Cello Sonata Movement II, mm. 51-53.....	40
Figure 28: Cordero: Cello Sonata, mvmt. II, mm. 60-63.	41
Figure 29: Cordero: Cello Sonata, mvmt. II, mm. 71-84.	42
Figure 30: Rows used in the third movement.	43
Figure 31: Form diagram of the <i>Allegro molto appassionato</i> movement.	44
Figure 32: Cordero: Cello Sonata, mvmt. III, mm. 1-10.....	45
Figure 33: Rabel rhythmic line.....	46
Figure 34: Cordero: Cello Sonata, mvmt. III, mm.25-32.....	47
Figure 35: Cordero: Cello Sonata, mvmt. III, mm.33-37.....	47
Figure 36: Cordero: Cello Sonata, mvmt. III, mm. 47-51 (a2) closing section.....	48
Figure 37: Cordero: Cello Sonata, mvmt. III, mm. 52-59. Closing section in (a3) & beginning of section (a3).....	49
Figure 38: Cordero: Cello Sonata, mvmt. III, mm. 60-63.....	50
Figure 39: Cordero: Cello Sonata, mvmt. III, mm. 80 – 83. Closing section of theme group (a3).	51
Figure 40: Cordero: Cello Sonata, mvmt. III, mm 84-91. Subsection (a4).....	52
Figure 41: Cordero: Cello Sonata, mvmt. III, mm. 100-103.....	53
Figure 42: Cordero: Cello Sonata, mm. 51-58 (I mvmt.), mm. 135-137 (I mvmt.), mm. 103- 106 (III mvmt.). Slow themes from movement I and II.....	53
Figure 43: Cordero: Cello Sonata, mvmt. III, mm. 103-107. (b1) slow section introduction.	55
Figure 44: Cordero: Cello Sonata, mvmt. III, mm. 116-123, end of (b1) and beginning of (b2).	56
Figure 45: Cordero: Cello Sonata, mvmt. III, mm. 124- 126, end of section (b1).....	56

Figure 46: Cordero: Cello Sonata, mvmt. III, mm. 127-129. End of section (b1) and the beginning of section (a5).....	57
Figure 47: Cordero: Cello Sonata, mvmt. III , mm. 135-143. Subsection (a5) introduction.	58
Figure 48: Cello Sonata Movement III, mm. 144-148. Ending of section (a5).....	59
Figure 49: Cordero: Cello Sonata, mvmt. III, mm. 149-152. Beginning of Section (a6).....	59
Figure 50: Cordero: Cello Sonata, mvmt. III, mm. 161-169. End of section (a6) and the beginning of section (a7).....	60
Figure 51: Cordero: Cello Sonata, mvmt. III, mm. 179-186. End of section (a7) and beginning section (a8).	61
Figure 52: Cordero: Cello Sonata, mvmt. III, mm. 187-190.	62
Figure 53: Cordero: Cello Sonata mvmt. III, mm. 191-194. (a8) ending coda.	63
Figure 54: Cordero: Cello Sonata, mvmt. III, mm. 202-208.	63
Figure 55: Cordero: Cello Sonata, mvmt. III, mm. 210-214.	64
Figure 56: Matrix and rows used in the first movement: <i>Adagio</i>	66
Figure 57: Matrixes and rows used in the second movement: <i>Largo e tristo</i>	66
Figure 58: Matrixes and rows used in the third movement: <i>Vivace</i>	66
Figure 59: Structure of the first movement of the Soliloquio No 6 for Cello solo.....	67
Figure 60: Matrix I used in Cordero: <i>Soliloquio No. 6</i> for Cello solo, first movement.	67
Figure 61: Cordero: <i>Soliloquio No. 6</i> , mvmt. I, mm. 1-4.	68
Figure 62: Cordero: <i>Soliloquio No. 6</i> , mvmt. I, mm 5-10.	69
Figure 63: Cordero: <i>Soliloquio No. 6</i> , mvmt. I, mm 8-18.	69
Figure 64: <i>Cinquillo</i> rhythmic cell on <i>danzon</i>	70
Figure 65: Cordero: <i>Soliloquio No. 6</i> , mvmt. I, mm. 19-41	71
Figure 66: Cordero: <i>Soliloquio No. 6</i> , mvmt. I, mm. 42-49.	71
Figure 67: Cordero: <i>Soliloquio No. 6</i> , mvmt. I, mm.50-52	72
Figure 68: Cordero: <i>Soliloquio No. 6</i> , mvmt. I, mm.53-64.	72

Figure 69: Cordero: <i>Soliloquio No. 6</i> , mvmt. I, mm. 65-69	73
Figure 70: “Y Orelé” <i>Tamborito tonada</i> transcribed by Roque Cordero	73
Figure 71: Cordero: <i>Soliloquio No. 6</i> , mvmt. I, mm. 70-75.	74
Figure 72: Cordero: <i>Soliloquio No. 6</i> , mvmt. I, mm. 76-81.	74
Figure 73: Clave rhythm.	74
Figure 74: Cordero: <i>Soliloquio No. 6</i> , mvmt. I, mm. 82-100.	75
Figure 75: Parsimonious smooth voice leading from mm. 105 – 111.	76
Figure 76: Cordero: <i>Soliloquio No. 6</i> , mvmt. I, mm. 105 – 118.	76
Figure 77: <i>Soliloquio No. 6</i> , mvmt. I, mm. 115-127.	77
Figure 78: Structure of the II movement of the <i>Soliloquio No. 6</i> for cello solo.	77
Figure 79: Matrix I used in <i>Soliloquio No. 6</i> for Cello solo, second movement.	78
Figure 80: Matrix II used in <i>Soliloquio No. 6</i> for Cello solo, second movement.	79
Figure 81: Cordero: <i>Soliloquio No. 6</i> , mvmt. II, mm. 1 – 7.	79
Figure 82: Cordero: <i>Soliloquio No. 6</i> , mvmt. II, mm. 8 – 18	80
Figure 83: Cordero: <i>Soliloquio No. 6</i> , mvmt. II, mm. 19-24.	80
Figure 84: Cordero: <i>Soliloquio No. 6</i> , mvmt. II, mm. 25-40.	81
Figure 85: Cordero: <i>Soliloquio No. 6</i> , mvmt. II, mm. 41-50.	83
Figure 86: Cordero: <i>Soliloquio No. 6</i> , mvmt. II, mm. 50-64.	84
Figure 87: Cordero: <i>Soliloquio No. 6</i> , mvmt. II, mm. 65-75.	85
Figure 88: Cordero: <i>Soliloquio No. 6</i> , Movement II, mm. 75-79.	85
Figure 89: Structure of the third movement of the <i>Soliloquio No. 6</i> for cello solo.	86
Figure 90: Matrix 1 used in Cordero: <i>Soliloquio No. 6</i> for Cello solo, third movement	86
Figure 91: Matrix II used in Cordero: <i>Soliloquio No. 6</i> for Cello solo, third movement.	87
Figure 92: Matrix III used in Cordero: <i>Soliloquio No. 6</i> for Cello solo, third movement. ..	87
Figure 93: Ravel manuscript, part of a <i>mejorana</i> tune.	88

Figure 94: Cordero: <i>Soliloquio No. 6</i> , mvmt. III, mm. 1-15.	88
Figure 95: Cordero: <i>Soliloquio No. 6</i> , mvmt. III, mm. 16-40.	89
Figure 96: <i>Mejorana</i> rhythm.	90
Figure 97: Cordero: <i>Soliloquio No. 6</i> , mvmt. III, mm. 40-56.	91
Figure 98: Cordero: <i>Soliloquio No. 6</i> , mvmt. III, mm. 57-70.	92
Figure 99: Tamborito song.	92
Figure 100: Cordero: <i>Soliloquio No. 6</i> , mvmt. III, mm. 71- 91.	93
Figure 101: Cordero: <i>Soliloquio No. 6</i> , mvmt. III, mm. 92-102.	94
Figure 102: Cordero: <i>Soliloquio No. 6</i> , mvmt. III, mm. 103-136.	95
Figure 103: Cordero: <i>Soliloquio No. 6</i> , mvmt. III, mm. 137-167.	96
Figure 104: Cordero: <i>Soliloquio No. 6</i> , mvmt. III, mm. 168-184.	97
Figure 105: Cordero: <i>Soliloquio No. 6</i> , mvmt. III, mm. 185-205.	98

Abstract

Roque Cordero (1917-2008) is the most recognized and accomplished composer of Panama. Even though his music is not yet well known on the concert classical stage, he has contributed to Latin American repertoire with his vast catalog of music. Richness is created by the mixture of twelve-tone technique combined with Panamanian musical folk elements and other Latin-American rhythms.

The objective of this monograph is to better understand the *Sonata for Cello and Piano* and the *Soliloquio No. 6* for cello solo, particularly to describe and analyze its structure, and to look for traces of Panamanian folk music. The intent is that the analysis can be used as a guide to learn about the Panamanian composer Roque Cordero; to have a better understanding on how Panamanian elements have been used in dodecaphonic pieces, and to provide an overview to cellists about how his music is organized and help them decide how they would like to interpret these pieces.

This thesis is divided in four sections. Following the introduction comes a review of Cordero's life and musical output as well as an analysis of the factors that could have influenced these compositions. The third section includes a description of structure and analysis of both cello pieces. Finally, the main conclusions of this work are presented. The results of these findings helped in my actual performance of these works.

Introduction

Since beginning my search for a topic, I wanted to look for a significant piece that would be historically valuable, challenging to learn and perform, and one that was undeservedly under-recognized and would hopefully start to find its way into the cello repertoire. I began by looking at what my countrymen had done, and I found Roque Cordero. Cordero had written two pieces for cello of which I had never heard a single performance, recorded nor live. One of these two pieces, The *Sonata for Cello and Piano* is published, and *Soliloquio No.6* is not. I did find that other Panamanian composers had written for cello. My brother, violinist Luis Casal and I had personally invited Maestro Cordero to be the Honorary Artistic Advisor of our National Annual Music Festival of Panama, *Alfredo De Saint Malo* in 2007-2008. Cordero already had an established reputation as the most important living Panamanian composer, so I felt duty bound to learn and investigate these pieces further. I wanted to learn for whom these pieces were composed, if they were performed, how they were written or constructed, and if they were truly of interest to be performed.

Roque Cordero was born in Panama, in 1917. Coming from a humble family with no musical background, he became one of the most notable and creative personalities in Central America.¹ Several orchestras, chamber groups, and soloists in the United States, Europe, and Latin America have performed and recorded Cordero's works. His

¹ Gerard Béhague, "The Hispanic World, 1918-45," in *Modern Times from World War I to the Present*, ed. Robert Morgan (Englewood Cliffs, New Jersey: Prentice Hall Inc., 1993).

compositional style fuses dodecaphonism with the rhythmic elements of Panamanian folk dance and music^{2,3}.

During his lifetime, Cordero composed only these two pieces for cello: the *Sonata for Cello and Piano* (1963), and the *Soliloquio No. 6* for cello solo (1992). Even though Cordero's notoriety is great, neither of these cello works have been commercially recorded nor has proof of any academic documentation or study been found on them. An interesting aspect to consider is that both works are dedicated to accomplished cellists: the *Sonata for Cello and Piano* was dedicated to Adolfo Odnoposoff, and the *Soliloquio No. 6 for Cello Solo* was dedicated to Ko Iwasaki.

The objective of this monograph is to dissect the *Sonata for Cello and Piano* and the *Soliloquio No. 6 for Cello Solo*, examine their structure, and to analyze and look for traces of Panamanian folk music, all in the name of an interpretation and performance of these works.

This thesis is divided into four sections. Following the introduction a review of Cordero's life and musical output as well as an analysis of the factors that could have influenced his composition of these works is presented. The third section includes a description of the structure and analysis of both cello pieces. Finally, the main conclusions of this work are presented. Already, the knowledge and information gathered here has been of great benefit in a concert I gave of the two works on April 23, 2014.

² Marie Labonville, "Roque Cordero (1917-2008) in the United States." Paper presented at the Latin American Music Center's Fiftieth Anniversary Conference "Cultural Counterpoints: Examining the Musical Interactions between the U.S. and Latin America," Indiana University, Bloomington, 2011. <https://scholarworks.iu.edu/dspace/bitstream/handle/2022/15513> (accessed April 8, 2014).

³ Luis Casal, "Panamanian Art Music for Strings: Works for Violin/Piano and Viola/Piano by Roque Cordero, Eduardo Charpentier, and Fermin Castañedas." (DMA diss., University of Oklahoma, 2006).

Roque Cordero's Life, Legacy, and Selected Works

The following chapter provides some insight to Roque Cordero's life and career. Its main focus consists of those aspects of his life leading up to and during the composition of the two selected pieces for this thesis, *The Sonata for Cello and Piano* (1963) and the *Soliloquio No.6 for Cello Solo* (1992).

The information for this chapter was gathered mainly from an extensive transcription of varying written sources discussing Maestro Cordero. Currently there are six doctoral dissertations, six master theses, four essays, and three short analytical studies relating to Cordero's music. Some of the studies target particular musical works (i.e. his symphonic works, piano compositions, chamber music works, among others), while others place his work in a broader framework of Panamanian music. Annex 1 provides a list of the academic works that have been studied, or written about. No book-length biography of Cordero has been published, however, an American author, Marie Labonville, is presently writing his biography. This information was complemented with information gathered during several interviews with people very close to Cordero's life and musical work, namely: Ko Iwasaki, Berthe Huberman Odnoposoff (Odnoposoff's wife), Germán Gutiérrez (a pupil and very close friend of Cordero), Dimitri Cordero (his son) and Marie Labonville (currently writing Cordero's bibliography).

Cordero's Life

Roque Cordero was born in 1917. Coming from a humble family with no musical background he became one of the “most notable creative personality of Central America”.⁴ During his childhood, most public schools had no music program, nor was there a public conservatory in Panama anywhere. In fact, during his childhood years he was not interested in classical music; although his interest began later on as a result of a series of “amazing circumstances”⁵.

During his teenage years he was mainly exposed to popular music (Marches, Dances, Tangos, Pasillos, Fantasias of Italian Operas, and Spanish Zarzuelas), and he taught himself solfege and harmony.⁶ In 1934 he began to receive musical training from Maximo Herculando Arrates Boza (1859-1936). Around this time, he also received lessons from Pedro Simon Rebolledo Puello (1895-1963), Herbert de Castro (1905-1969), and others. During this period, Cordero composed several popular pieces, which were all played by local bands, and he himself performed several of his own arrangements and adaptations of mostly popular music. With these works he gained acceptance and certain level of success at a national level⁷.

Roque Cordero started his career as a performer with the violin, which he played in his early twenties (circa 1939-1943) with the newly created Symphony Orchestra of Panama (later the National Symphony of Panama), but he also played the clarinet and viola.

⁴ Béhague, “The Hispanic World, 1918-45.”

⁵ Labonville makes a description of this “amazing circumstances” based on Cordero’s “Roque’s Memoirs” (transcription of informal oral memoirs dictated during the 1980s and 1990s; typescript, private collection of Roque Cordero). These memoirs were dictated into a tape recorder while Cordero and his wife made lengthy automobile trips. Cordero’s wife later transcribed the tapes into a 183-page typescript that was intended for members of the family.

⁶ Roque Cordero, “Remembranzas de Roque Cordero”, *Revista Loteria*, 368 (1987): p. 16.

⁷ Efraín Cruz de Gracia, “Roque Cordero, Compositor Panameño, Visto a Través de Algunas de sus Obras (Roque Cordero, Panamanian Composer, seen through some of his works)” (MM thesis, University of Panama, 2002).

According to Dimitri Cordero, his father's account on how he began to play the viola was that, at some point, the orchestra conductor, who played the viola himself, complained that he wished he had someone who could play the viola. Cordero cheerfully volunteered to give it a try. He had never played the viola before, but could read the C clef, so he continued as a viola player in this orchestra.⁸

In 1939, he composed *Capricho Interiorano*, his first piece to be performed by a professional orchestra. In 1943, with the help of Myron Schaeffer, an American composer living and working in Panama,⁹ he came to the United States of America on a nine-month scholarship to study music education.¹⁰

A month into his studies in Minnesota, while conducting his band piece in a university concert, Cordero met John Sherman, a renowned music critic from the Minneapolis Star. Sherman was impressed by Cordero, and introduced him to Dimitri Mitropoulos, conductor of the Minneapolis Symphony. Although Mitropoulos was impressed by Cordero's piece, he argued that he needed training in counterpoint, and introduced Cordero to Ernst Krenek, from Hamline University.¹¹ Cordero went on to study musical composition with Krenek for three and a half years.^{12,13} In 1947, he graduated *Magna Cum Laude* from Hamline University¹⁴. After graduation, while he received the Guggenheim Fellowship, he remained in the States for another three years until 1950.¹⁵

⁸ Dimitri Cordero, email message to author, February 11, 2015.

⁹ Cordero was a student of Schaeffer, in music appreciation course at the University of Panama (Dimitri Cordero, email message to author, February 11, 2015)

¹⁰ Dimitri Cordero, email message to author, February 11, 2015.

¹¹ Labonville, "Roque Cordero (1917-2008) in the United States."

¹² As a demonstration of the esteem that Cordero had towards Mitropoulos, one of Cordero's first child was named Dimitri (personal communication Germán Gutiérrez, March 29, 2014).

¹³ Dimitri Cordero, email message to author, February 3, 2014.

¹⁴ In 1966 he received the Doctor *honoris causa* diploma from this University.

¹⁵ Dimitri Cordero, email message to author, February 11, 2015.

Studying with Krenek, one of the main exponents of Schoenberg's Second Viennese School, will become a major influence in his career as a composer, the reason for "Cordero's marriage with dodecaphonism".¹⁶

After seven years of living in the United States, he returned to Panama in 1950 eager to share his knowledge with his fellow Panamanians. He was offered a part-time teaching position in music Theory and Harmony at the Panama's National Conservatory of Music, and later on the position of Assistant to the Director, a position in which he found several challenges. Number one, the level of Panamanian musicians was not high enough to play his pieces. He found that most of the students approached music as a hobby and not as a career given that there were few possibilities for such. Furthermore, he experienced a defiance to his introduction of change that would improve the situation. In 1953 he was appointed Director of the Conservatory. Still he encountered resistance and opposition from peers and politicians, and needed to work under severe economic constraints.¹⁷

Finally, in 1966, frustrated and disappointed, he left Panama to accept a three-year position at Indiana University as Assistant Director of the Latin American Music Center and teacher of composition. "Cordero began his voluntary exile in searching for a supportive artistic environment in the name of his country, outside of his country"¹⁸. His friend, German Gutierrez, refers to the mixed feeling that Cordero had about his homeland, Panama: "...nostalgic, mixed with a bitter taste generated by the ignorance and lack of recognition to his efforts to improve the Panamanian classical music world and the quality and value of his work."¹⁹ After three years at Indiana University and three years working

¹⁶ Germán Gutiérrez, interview by author, March 29, 2014.

¹⁷ Casal, "Panamanian Art Music for Strings."

¹⁸ Ibid.

¹⁹ Germán Gutiérrez, interview by author, March 29, 2014.

for his publishing house Peer Southern as a music editor, he took a position at Illinois State University's first professor of composition. This opportunity at Illinois State University "immersed him in the musical life," kept him close to world-class musicians he could compose for, and facilitated his creation of the annual Latin American Music Concert, an event where he could showcase his music and the music of composers across the Americas.²⁰

In 1987, being 70 years old, he retired from full-time teaching. However, until 2000 he continued to teach composition part-time, at Illinois State University. He also continued composing, attending international festivals, and accepting commissions as well as invitations as a lecturer and guest conductor. In 2000 he moved with his wife to Dayton, Ohio, where his oldest son still lives. He remained there until his death in 2008.²¹ In August 2012, as a tribute to his love for his country, his mortal remains were transferred to Panama²².

According to Cordero's son, Cordero never made a "blanket statement" about his thoughts on the future of classical music in Panama. However, he received important encouragement from many of his contemporary countrymen who worked towards raising the cultural level of Panama.²³

²⁰ Dimitri Cordero, email message to author, February 11, 2015

²¹ Labonville, "Roque Cordero (1917-2008) in the United States."

²² Germán Gutiérrez, interview by author, March 29, 2014.

²³ Dimitri Cordero, email message to author, February 11, 2015

Cordero's Legacy

Labonville describes him as an “energetic musician who was active as a conductor, educator, writer, and composer.”²⁴ Prominent artists and institutions such as Adolfo Odnoposoff, Dimitri Mitropoulos, the Koussevitzky Foundation, the Catholic University of Chile, the Third Festival of Caracas, the Council of the Arts of Illinois, the University of Hamline, the University of Alabama, the Second Festival of Guanabara in Brazil, and the Kennedy Centre, among others, have commissioned works by Cordero. His mature works include approximately twelve pieces for piano, fourteen for orchestra, five for string orchestra, three for soloist and orchestra, thirty-two for chamber ensemble, five for chorus, one for chorus and orchestra, two for ballet dancers, and one film score.²⁵

Noteworthy soloists, chamber groups and orchestras have performed and recorded Cordero's pieces in Europe, South, Central and North America. Although he is first and foremost a composer, Cordero has also been guest conductor, active lecturer in various countries and has served on juries for many international composition competitions²⁶.

His legacy also includes harmony, counterpoint and solfege methods, along with sixty prosaic writings, some of them related to music in Panama, music education, or the subject of musical nationalism²⁷.

All of Cordero's compositions have been printed, although only about half of his compositions are published commercially, mostly by Peer Classical. The works not yet published belong mainly to his early composition days and to a period in the 1980s and 1990s when he composed many shorter pieces for the faculty at Illinois State University.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Casal, “Panamanian Art Music for Strings.”

²⁷ Labonville, “Roque Cordero (1917-2008) in the United States.”

According to Cordero's son, efforts continue to bring attention to these pieces individually, on a demand basis.²⁸

Compositional Style

Cordero's compositional style successfully blends dodecaphonism with the rhythmic elements of Panamanian folk music. According to Gutierrez, "Cordero respected and followed the composers from the Viennese School, the ones that have studied with Schoenberg – adding the Latin American ingredient to most of his works. Therefore, he is a composer with a strong Latin American identity, but writing with a serial language."²⁹

Cordero's interest in folk elements can be traced back to his early years in his *Capricho Interiorano* (1939). Even though he could be labeled a nationalistic composer for using Panamanian elements, he did not consider himself one.

"My music is not nationalist in the sense of being a conscious exploitation of the folklore of my country, but that music, if I must be honest in my creations, it must be the expression of something that belongs to my people, which does not allow my music to sound like French, Italian, or German music. That "something" I try to express through melodic figures related to our folklore and through the exploitation of rhythmic vitality of our dances. National art without being nationalist."³⁰

His encounter with dodecaphonic music happened through hearing a performance of the dances of Carlos Paz, an Argentinean composer and the first Latin American to utilize the method. However, it was while studying with Krenek when he first considered the possibility of using that technique in his music; specifically after discovering his book "Studies in Counterpoint Based on the Twelve-Tone Technique"³¹ that explains the dodecaphonic method. Cordero realized that if he mastered the twelve-tone system, he

²⁸ Dimitri Cordero, email message to author, February 11, 2015

²⁹ Germán Gutiérrez, interview by author, March 29, 2014.

³⁰ Gilbert Chase, *Introducción a la Música Americana Contemporánea* (Argentina: Editorial Nova, 1958)

³¹ Tim Ashley, "Krenek, Ernst," *The Oxford Companion to Music*. Oxford Music Online. Oxford University Press, accessed November 26, 2014. <http://www.oxfordmusiconline.com/subscriber/article/opr/t114/e3775>

would be able to find a way to use it and at the same time not lose or abandon his existing identity. When he first asked Krenek to teach him the method, Krenek was hesitant.

Cordero himself stated that Krenek knew how much Cordero³², wanted to be a “Panamanian composer”, and he believed that a central European technique was unsuited to the sensibility or aesthetic of Latin American composition.

After Cordero’s argument that he desired mastery of the technique in order to use it in service of his personal aesthetic, Krenek agreed to teach Cordero the method to see what could result. Since then, Cordero remained a dodecaphonic composer, occasionally returning a more tonal style³³. According to Gutierrez the intense use of serialism in his music could be the reason why Cordero’s music has not been so widespread, “...it was listened to during that time, but the rise of serialism has vanished.”³⁴ A similar situation occurred with Krenek. According to Gutierrez, “there was an abuse of serial music by the composers at that time, and the audiences just got tired of it. Dodecaphonic music not only implies a challenge for musicians to perform, but because of its aridity, Serialism brings several difficulties for listeners as well.”³⁵

“Cordero crafted his rows in such a way that they would create melodies or harmonies that had tonal characteristics without being explicitly tonal in order to bring Panamanian elements into his pitch materials.”³⁶

The fusion between nationalism and dodecaphonism was challenging, particularly back in the 1950’s. A main question that emerged was if it was indeed logical, convenient,

³² Roque Cordero, “*El serialismo*” 1–2, in Labonville, Marie. “Roque Cordero (1917-2008) in the United States.” Paper presented at the Latin American Music Center’s Fiftieth Anniversary Conference “Cultural Counterpoints: Examining the Musical Interactions between the U.S. and Latin America, Indiana University, Bloomington, 2011.

³³ Casal, “Panamanian Art Music for Strings.”

³⁴ Germán Gutiérrez, interview by author, March 29, 2014.

³⁵ German Gutierrez, interview by author, March 29, 2014.

³⁶ Labonville, “Roque Cordero (1917-2008) in the United States.”

or even natural for Latin American composers to merge folk music with European styles.³⁷

According to these critiques, the only way to compose something that differed from European music was the artistic exploitation of the Latin American folklore. After several criticisms Cordero wrote an essay discussing this merger for the Second Festival of Latin American Music, where he challenged the opposition of nationalism and dodecaphonism. In his opinion:

“This question is unnecessary. Should it be considered illogical that today’s man expresses himself in the language of his time? Is it not logical and healthy that being in the second half of the twentieth century, a man takes advantage of all technical, scientific, and social achievements of recent years? ... Or is it that the only way to compose music for everybody is to use common fragments, which could easily be identified by an audience? Why underestimate the power of an appreciative?”³⁸

Cordero’s selected works for cello

During his career, Cordero wrote two pieces for cello: the *Sonata for Cello and Piano* and the *Soliloquio No. 6* for cello solo.

Sonata for Cello and Piano

The *Sonata for Cello and Piano* was composed in 1963 when Cordero was 46 years old. It falls within the period 1958-1964 that according to Labonville was distinguished by the prize given to his Symphony No. 2 (1956) at Second Festival of Latin American Music in Caracas. The cash awarded by this prize greatly helped the financial situation of his family. Most importantly, Cordero began earning more respect and recognition in Panama after winning the award. He also began to participate in international festivals and

³⁷ Cordero, Roque. *Nacionalismo versus Dodecafonismo*. Revista Muscial Chilena, 13(67), 1956, p. 28.

³⁸ Ibid.

conferences regularly.³⁹ These trips brought him into contact with the leading composers of many nations. He became the leading composer of his own country.⁴⁰ In spite of this he continued facing obstacles due to politics in the local Panamanian music community, eventually causing him to leave Panama in 1966.

The *Sonata for Cello and Piano* was commissioned by Adolfo Odnoposoff, an Argentine-born-and-raised cellist with Russian-Jewish background who concertized for five decades under the baton of several conductors such as Arturo Toscanini, Erik Kleiber, Sir John Barbirolli, Eduardo Mata, Jorge Sarmientos, among others. Odnoposoff was principal cellist in the most important orchestras of Latin America and the Caribbean. He gave recitals for many presidents, was Pablo Casals' teaching assistant for several years in Puerto Rico, and also performed in North America, Europe, Israel, and the former USSR.

Mrs. Berthe Odnoposoff, Odnoposoff's wife and pianist, was interviewed during the spring of 2014. She remembers Maestro Cordero dearly and recalls performing his piece together with her husband. At the present time, Mrs. Odnoposoff is in her nineties.

"Look into her husband's documents to find any material that could prove that the Odnoposoff actually performed the piece was not an easy task."⁴¹ Fortunately, Dimitri Cordero keeps material confirming that the Cello Sonata was first performed on September 10, 1985 and again on September 22 in 1992 by Ko and Yuri Iwasaki. Additionally, he also has a recording by Adolfo Odnoposoff in collaboration with his wife, Bertha Odnoposoff,

³⁹ Labonville, "Roque Cordero (1917-2008) in the United States."

⁴⁰ Ibid.

⁴¹ Berthe Odnoposoff, interview by author, April 1, 2014

but there is no precise date as to when this performance took place.⁴² Cellist Ko Iwasaki, during a telephone conversation recalled performing the piece internationally.⁴³

Soliloquio No.6 for Cello Solo

The *Soliloquio No.6* for cello solo was composed in 1992, situated within the period 1987–2000 of Cordero’s life. During this period Cordero was already retired but continued teaching composition part-time at Illinois State University, maintaining his series of campus concerts of Latin American music, participating in international music festivals, and accepting invitations as guest conductor.

Then later on, I decided I would write another Soliloquio this time for cello, for my friend Ko Iwasaki, who always collaborated with my Latin American Concerts. And, while I was in Oregon one summer, I started writing a Soliloquios número seis, for solo cello. I came back to ISU that summer, and while I went to check my mail, I was informed that my friend Bernie Eichen, who was not in very good health he had been suffering of his heart before, and he had a pacemaker although he seemed to be feeling fine when I saw him a few days before I went to Oregon and he was looking forward to going to Spain with the Youth Orchestra of Kansas City but he passed away in New York, among friends, and his violin in his hands, after playing while he rested, and never came back. Of course, I was quite moved by the news. He was a very close friend of Ko Iwasaki.⁴⁴

The *Soliloquio No.6* was dedicated to cellist Ko Iwasaki. Iwasaki is a Japanese cellist who studied with Hideo Saito, Leonard Rose, Harvey Shapiro, and Pablo Casals. He won numerous international cello competitions (i.e. the Vienna, Munich, Budapest, Cassado, and Tchaikovsky competitions) and awards (i.e. Arts Minister Award for Young Artists and the Arts Festival Record Prize for his performance of contemporary Japanese cello music). Since 1974, he has relocated in the United States where he has performed

⁴² Dimitri Cordero, email message to author, November 24, 2014.

⁴³ Ko Iwasaki, interview by author, April 1, 2014.

⁴⁴ Cordero, “Roque’s Memoirs,” 158. Informal memoirs of Roque Cordero kindly provided by Marie Labomville.

extensively both as a soloist and as a chamber music artist. He has also performed in Europe, the former Soviet Union, and Japan. In addition, he has participated in numerous festivals (i.e. Marlboro, Aspen, Santa Fe, Lockenhaus, and Kuhumo). He has taught at Illinois State University, University of Illinois, and the Southern Methodist University.⁴⁵ Since 1990, he has been invited to serve as jury member at many international competitions such as Cassado, Munich, the Tchaikovsky, and Isang Yun. Currently, he is an adjunct professor at Toho Conservatory in Tokyo, and regular faculty member at the Institute for Strings (Dallas), and the Montecito International Music Festival in California.⁴⁶

During the spring of 2014, I was able to interview Prof. Ko Iwasaki who described Mr. Cordero as a happy, friendly person and a profound composer. Prof. Iwasaki was more interested in the *Soliloquio* than in the *Sonata*. He stated that he played the *Soliloquio No. 6* at a recital during his faculty residence at Illinois University, but he was unable to find a program of the event. Also, he did not recall having recorded the piece. Mr. Iwasaki mentioned that he performed the *Soliloquio* only at Illinois State University.⁴⁷ Fortunately, Mr. Dimitri Cordero had a recording of the world premiere of the *Soliloquio No. 6* by Mr. Iwasaki on April 6, 1993 who later performed the piece on November 9, 1993. Cellist Gregory Hamilton made another performance, on October 29, 1996.⁴⁸

One of my research questions was if *Soliloquio No. 6* had a larger connection to -or musical sequences among- the other five soliloquies. In this regard, Mrs. Labonville provided some information based on Mr. Cordero's memoirs. According to the memoirs, each *Soliloquio* was created for a different circumstance, unrelated between them.

⁴⁵ Chamber Music International, 2014 Concert Season. Accessed March 5, 2014, http://www.chambermusicinternational.org/index.php?main=artists&artist_id=10.

⁴⁶ Ibid.

⁴⁷ Hiro Iwasaki, interview by author, April 1, 2014.

⁴⁸ Dimitri Cordero, email message to author, November 24, 2014.

Soliloquio No. 1 [1975] was written upon request of his friend Max Schoenfeld, flutist; *Soliloquio No. 2* [1976] was a request by Jim Boitos, for alto sax; *Soliloquio No.3* [1976] for Aris Chávez, for solo clarinet; *Soliloquio No. 4* [1981] for percussion, written and dedicated to David Shrader; and *Soliloquio No. 5* [1981] for string bass, for his friend Arthur Corra.⁴⁹

⁴⁹ Cordero, “Roque’s Memoirs,” 92. Informal memoirs of Roque Cordero kindly provided by Marie Labombile.

Structure and Analysis of Selected Works

The following section describes the structure and provides an analysis of the selected pieces. This analysis was made by using the “Twelve-Tone” composition system. The system consists of the twelve notes inside the octave (C-C#/Db-D-D#/Eb-E-F-F#/Gb-G-G#/Ab-A-A#/Bb-B-C. The system works in an “ordered relationship where all notes are treated as equal, and no group of notes predominates as in major/minor key system.”⁵⁰

In the Schoenberg method, precursor of this technique:

all pitches are related to a fixed order of the 12 chromatic notes, this order providing the work's basic shape. The fixed order is called a note-row (or series or set). No note is repeated within a row, which therefore comprises 12 different notes and no other. The note-row is not a theme but a source from which the comp. is made. It can be transposed to begin on any of the 12 pitches, and it may appear in retrograde, inversion, and retrograde□ inversion. Since each of these transformations may also be transposed, each note-row can have 48 related pitch successions.⁵¹

For the two pieces, the main matrixes are created by assigning P_0 to the first row of the works and the designation does not change for the following movements. I refer to the main matrix because in *Soliloquio No. 6*, Cordero uses three different matrixes, although the overall piece is mainly structured by using the first matrix. “The labels for other rows are numbered in relation to their transposition. Consequently, if P_0 begins with an F-natural, P_1 will begin with a F-sharp.

For inversions, each inversion row I_{0-11} will start on the same pitch as the associated

⁵⁰ "Twelve-Note Composition." *The Oxford Dictionary of Music*, 2nd ed. rev. *Oxford Music Online*. Oxford University Press, accessed February 3, 2015, <http://www.oxfordmusiconline.com/subscriber/article/opr/t237/e10517>.

⁵¹ "Serialism, Serial Technique, Serial Music." *The Oxford Dictionary of Music*, 2nd ed. rev.. *Oxford Music Online*. Oxford University Press, accessed February 14, 2015, <http://www.oxfordmusiconline.com/subscriber/article/opr/t237/e9301>.

prime row, P_{0-11} . So if the row P_0 starts on "G", then I_0 will too."⁵² "The retrograde inversion rows contain all the same pitches as their associated primary or inversion rows, only in reverse order. For example, R_0 contains the same pitches as P_0 in reverse order. Similarly, RI_0 is the reverse of I_0 . This means that the proceeding pitch of an R or RI row will be the same as the ending pitch of the similarly-numbered P or I row."⁵³

The matrix is provided in both cases, and the rows used on each matrix have been colored for each movement, followed by a discussion of elaboration and form. The analysis of the piece was made by a thorough identification of rows. Understanding the relationship between different rhythms along with the search for possible Panamanian or Latin American folk tunes and rhythmic patterns is essential to determining how Cordero's musical ideas were shaped throughout these pieces.

In Spring 2014 I performed these compositions while simultaneously working on the process of the theoretical analysis. This performance proved to be very successful, enriching both sides of my research. In addition, the Russian pianist Liudmila Georgievskaya kindly accepted my request to participate in the project, and we played this Sonata together. Some insights from the perspective of a pianist about the performance of the work are included in the discussion of the analysis.

⁵²Composer Tools. <http://composertools.com/Tools/matrix/MatrixCalc.html> (Accessed February 16, 2015).

⁵³ Ibid.

Sonata for Cello and Piano

This Sonata is based on the dodecaphonic technique, but what makes this piece - and many others Cordero's pieces - different, is the clever use of tone rows and free manipulation to serve his musical ideas. He uses much of the same material throughout each movement, with some elaboration. Functional harmony is completely absent throughout the Sonata.

All movements from the Sonata begin and end with the same row pattern. The way that tonal music begins and ends in the tonic key and the different tempo markings, dynamics, combination of rows and rhythmic patterns all delineate the relationships within this piece that are analogous and constructed on a typical 18th or 19th century model which consists of: 1) establishment of a tonic, 2) movement away from the tonic, and 3) return to the tonic.⁵⁴ In this case, in place of a tonic key or primary theme, the composer establishes, moves away from, and returns to the Prime Row. Cordero treats the prime row, "like" a tonic or as a post-tonal analogy to a tonic. A tonic is a consonant triad or key area, which a 12-tone row can never be. Instead, the prime form of the row is a stable point of reference for the organization of the work.

The Sonata has three movements: *Allegro molto appassionato*, *Adagio*, and *Vivace*. Figure 1 shows the matrix used in the Sonata, and Figure 2 provides an overview of its structure.

All movements use the prime row (5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 8, 11), and the permutations I_0 (5, 6, 0, 1, 10, 9, 3, 8, 7, 4, 2, 11) and RI_0 (11, 2, 4, 7, 8, 3, 9, 10, 1, 0, 6, 5).

⁵⁴James Webster, "Sonata form," *Grove Music Online. Oxford Music Online*. Oxford University Press, accessed November 22, 2014 <http://www.oxfordmusiconline.com/subscriber/article/grove/music/26197>.

As shown in Figure 2, the first and second movements of this work use the fewest number of permutations while the third movement utilizes them the most. The *Allegro molto appassionato* uses the prime row and six permutations; the second movement, *Adagio*, uses the prime row and six permutations ($R_0, I_0, I_6, I_7, I_{11}$ and RI_0); and the third movement, *Vivace*, uses ($P_0, P_1, P_2, R_0, R_5, R_{11}, I_0, I_6, I_7, I_{11}$, and RI_0).

	I_0	I_{11}	I_5	I_4	I_7	I_8	I_2	I_9	I_{10}	I_1	I_3	I_6	
P_0	5	4	10	9	0	1	7	2	3	6	8	11	R_0
P_1	6	5	11	10	1	2	8	3	4	7	9	0	R_1
P_7	0	11	5	4	7	8	2	9	10	1	3	6	R_7
P_8	1	0	6	5	8	9	3	10	11	2	4	7	R_8
P_5	10	9	3	2	5	6	0	7	8	11	1	4	R_5
P_4	9	8	2	1	4	5	11	6	8	10	0	3	R_4
P_{10}	3	2	8	7	10	1	5	0	1	4	6	9	R_{10}
P_3	8	7	1	0	3	4	10	5	6	9	11	2	R_3
P_2	7	6	0	11	2	3	9	4	5	8	10	1	R_2
P_{11}	4	3	9	8	11	0	6	1	2	5	9	10	R_{11}
P_9	2	1	7	6	9	10	4	11	0	3	5	8	R_9
P_6	11	10	4	3	6	7	1	8	9	0	2	5	R_6
	RI_0	RI_{11}	RI_5	RI_4	RI_7	RI_8	RI_2	RI_9	RI_{10}	RI_1	RI_3	RI_6	

Figure 1: Matrix used in the Sonata for Cello and Piano

<i>Allegro molto Appassionato</i>	$P_0 = 5, 4, 10, 9, 1, 7, 2, 3, 6, 8, 11$ $P_2 = 7, 6, 0, 11, 2, 3, 9, 4, 5, 8, 10, 1$ $I_0 = 5, 6, 0, 1, 10, 9, 3, 8, 7, 4, 2, 11$ $I_2 = 11, 8, 6, 3, 2, 7, 1, 0, 9, 10, 4, 5$ $R_0 = 11, 8, 6, 3, 2, 7, 1, 0, 9, 10, 4, 5$ $R_9 = 11, 8, 6, 3, 2, 7, 1, 0, 9, 10, 4, 5$ $RI_0 = 11, 2, 4, 7, 8, 3, 9, 10, 1, 0, 6, 5$
<i>Adagio</i>	$P_0 = 5, 4, 10, 9, 1, 7, 2, 3, 6, 8, 11$ $R_0 = 11, 8, 6, 3, 2, 7, 1, 0, 9, 10, 4, 5$ $I_0 = 5, 6, 0, 1, 10, 9, 3, 8, 7, 4, 2, 11$ $I_6 = 11, 0, 6, 7, 4, 3, 9, 2, 1, 10, 8, 5$ $I_7 = 0, 1, 7, 8, 5, 4, 10, 3, 2, 11, 9, 6$ $I_{11} = 4, 5, 11, 0, 9, 8, 2, 7, 6, 3, 1, 10$ $RI_0 = 11, 2, 4, 7, 8, 3, 9, 10, 1, 0, 6, 5$
<i>Vivace</i>	$P_0 = 5, 4, 10, 9, 1, 7, 2, 3, 6, 8, 11$ $P_1 = 6, 5, 11, 10, 1, 2, 8, 3, 4, 7, 9, 0$ $P_2 = 7, 6, 0, 11, 2, 3, 9, 4, 5, 8, 10, 1$ $R_0 = 11, 8, 6, 3, 2, 7, 1, 0, 9, 10, 4, 5$ $R_5 = 4, 1, 11, 8, 7, 0, 6, 5, 2, 3, 9, 10$ $R_{11} = 10, 7, 5, 2, 1, 6, 0, 11, 8, , 9, 3, 4$ $I_0 = 5, 6, 0, 1, 10, 9, 3, 8, 7, 4, 2, 11$ $I_6 = 11, 0, 6, 7, 4, 3, 9, 2, 1, 10, 8, 5$ $I_7 = 0, 1, 7, 8, 5, 4, 10, 3, 2, 11, 9, 6$ $I_{11} = 4, 5, 11, 0, 9, 8, 2, 7, 6, 3, 1, 10$ $RI_0 = 11, 2, 4, 7, 8, 3, 9, 10, 1, 0, 6, 5$

Figure 2: Overall structure of the Sonata for Cello and Piano

First Movement: Allegro Molto Appassionato

Figure 3 shows the rows used in the first movement, organized in a compound ternary form: ABABA, and Figure 4 shows a diagram of the organization of the first movement.

	I ₀	I ₁₁	I ₅	I ₄	I ₇	I ₈	I ₂	I ₉	I ₁₀	I ₁	I ₃	I ₆	
P ₀	5	4	10	9	0	1	7	2	3	6	8	11	R ₀
P ₁	6	5	11	10	1	2	8	3	4	7	9	0	R ₁
P ₇	0	11	5	4	7	8	2	9	10	1	3	6	R ₇
P ₈	1	0	6	5	8	9	3	10	11	2	4	7	R ₈
P ₅	10	9	3	2	5	6	0	7	8	11	1	4	R ₅
P ₄	9	8	2	1	4	5	11	6	8	10	0	3	R ₄
P ₁₀	3	2	8	7	10	1	5	0	1	4	6	9	R ₁₀
P ₃	8	7	1	0	3	4	10	5	6	9	11	2	R ₃
P ₂	7	6	0	11	2	3	9	4	5	8	10	1	R ₂
P ₁₁	4	3	9	8	11	0	6	1	2	5	9	10	R ₁₁
P ₉	2	1	7	6	9	10	4	11	0	3	5	8	R ₉
P ₆	11	10	4	3	6	7	1	8	9	0	2	5	R ₆
	RI ₀	RI ₁₁	RI ₅	RI ₄	RI ₇	RI ₈	RI ₂	RI ₉	RI ₁₀	RI ₁	RI ₃	RI ₆	

Figure 3: Rows used in the first movement.

Allegro molto appassionato	A			
Theme group	a1	a2	a3	
mm.	1 – 17	18 – 39	40-53	
Moderato quasi Andante	B			
Theme group	b1		b2	
mm.	54-69		70-76	
Tempo I	A			
Theme	a4	a5	a6	a7
mm.	77 – 85	85.5 - 98	99 - 111	112 – 131
Andante quasi adagio	B'			
Theme group	b3		b4	
mm.	132-138		139-145	
Allegro appassionato	A			
Theme group	a4	a5	CODA	
mm.	146 - 159	160-167	168 -186	

Figure 4: Form diagram of the *Allegro molto appassionato* movement.

The sonata is arranged in five parts in the ABABA form. Each section is divided in subsections that share and develop material that derived from the first measures of the piece. Their organization is based on the metrical arrangement and use of the rows. This music sounds dissonant and energetic from the beginning. Part A, the first one in this movement, is divided in three subsections: (a1), (a2), and (a3). Subsection (a3) is a variation of the rhythmic pattern of subsection (a1) and (a3) uses the melodic contour of the original motive presented in subsection (a1).

Once again, the first movement has an energetic character from its start. (a1) occurs in mm. 1-17 with the introduction of the prime row P_0 (5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 8, 11) in the cello part, and the permutation P_2 (7, 6, 0, 11, 2, 3, 9, 4, 5, 8, 10, 1) in the piano part with alternation of 5/8, 2/4, 7/8 shaping the musical ideas. The cello in mm. 1-6 drives the musical line, and from m. 7, the piano supports the line with a group of sixteenth notes arpeggios (see Figure 5).

Allegro molto appassionato (ca. 112)

Violoncello

Piano

Prime Row P_0 : 5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 8, 11

Permutation P_2 : 7, 6, 0, 11, 2, 3, 9, 4, 5, 8, 10, 1

Figure 5 shows the musical score for the first movement of the Cello Sonata by Cordero, measures 1 through 9. The score is for Violoncello and Piano. The tempo is Allegro molto appassionato (ca. 112). The key signature has one sharp (F#). The time signature alternates between 5/8, 2/4, and 7/8. The Violoncello part starts with a melodic line in 5/8, then 2/4, and then 7/8. The Piano part provides harmonic support with arpeggios and chords. The score includes dynamic markings such as f, mf, mp, and p. The score is annotated with prime row P_0 and permutation P_2 , and their corresponding notes in the key signature.

Figure 5: Cordero: Cello Sonata, mvmt. I, mm. 1 – 9.

This section is elaborated by shaping the prime row (P_0) and permutation P_2 with alternation of the tempo presented in the opening four bars of the piece. The first theme group ends in m. 17 with the last integers of the prime row on the cello line. After the last chord, an eighth-note silence in m. 17 follow, giving a sense of conclusion of the (a1) section on beat two.

The second theme group (a2) (mm. 18-38) continues with the prime row in the cello and piano part. This section sounds like a variation of the theme with the cello sounding even more lyrical than in the previous group theme. The piano continues playing arpeggios to accompany the cello line from mm. 20 – 38 (see Figure 6).

The musical score for Figure 6 is divided into two systems. The first system covers measures 15 to 20, and the second system covers measures 20 to 25. The cello line is written in the bass clef, and the piano accompaniment is written in the grand staff (treble and bass clefs). The score includes various dynamics such as *mf*, *f*, *mp*, *dim.*, *p*, and *pp*, and articulations like *cresc.* and *p espress.*. The prime row P_0 (5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 8, 11) is indicated above the cello line in measures 15 and 20.

Figure 6: Cordero: Cello Sonata, mvmt. I, mm.15 – 25. Ending of section (a1) - beginning of section (a2).

Cordero brings the first group theme (a3) with variations of subsection (a1). This section goes from mm. 39-53. This partition is shaped by the repetition of shorts motives of sixteenth notes groups from the prime row. For example, from mm. 31-45, the music sounds like a short recapitulation of (a1) and in mm. 46-47, we can hear a descending line of sixteenth notes in the cello that is driven to arrive in m. 48. Where the permutation I_0 is smoothly fastened with the prime row and it prolongs the line with an appealing rhythmic gesture in mm. 48-49. This texture of enthusiasm is created by a sequence produced by syncopated rhythms made of the combination of a sixteenth note pause followed by grouping three sixteenth notes meanwhile the piano part still use members of the prime row with spontaneous short notes of single and double stops implying harmonic support (see Figure 7).

Figure 7: Cello Sonata mvmt. I, mm. 46 – 49.

Subsection (a2) ends with a glissando from the integer 9 (A) to the integer 3 (E-flat) of the I_{10} row in m. 50, letting the piano prepare the next mood with a descending line with members of the prime row, and in this manner finalizing the section in mm. 52-53. Cordero cleverly connects the last integer of the prime row in m. 53, with the next permutation R_0 in m. 54, and that is how he links group theme (a1) with part B, *Moderato quasi Andante* (see Figure 8). Even though the piece is complex rhythmically in terms of its ensemble playing,

some *rubato* in the piano part may be desired. In this context, it is allowed only for very short fragments (i.e. motives of two or three notes), or in the lines between the cello entrances in the cantabile writing, or in transitional material (mm. 51-53).⁵⁵

The image shows a musical score for a cello and piano. The top system starts at measure 50, marked with a box. It features a cello line with a forte (f) dynamic and a piano line with a forte (f) dynamic. Above the staff, there are annotations including 'Moderato quasi Andante (ca. 72)', 'mp cantando', and 'p'. Below the staff, there are numerical sequences in different colors (red, blue, green) and brackets, likely representing pitch classes or intervals. The bottom system starts at measure 55, also marked with a box. It features a cello line with a mezzo-piano (mp) dynamic and a piano line with a mezzo-piano (mp) dynamic. Above the staff, there are annotations including 'cresc.' and 'dim.'. Below the staff, there are numerical sequences in different colors (red, blue, green) and brackets, likely representing pitch classes or intervals.

Figure 8: Cordero: cello Sonata mvmt. I, mm. 50 -55.

Moderato quasi Andante resets the mood by slowing down the tempo (quarter note = 72 M). The tempo of this section is slow and serene. The B section theme group is from mm 54 -76 and is divided in two subsections: (b1) (mm. 53-69) and (b2) (mm. 70-76). Subsection (b2) can be considered the counter phrase of subsection (b1). In this section, Cordero clearly marks in m. 54 “cantando” (singing), allowing wider expression and lyricism. This section is shorter than the A section and we can appreciate how, like in many other sections, Cordero cleverly combines three different rows to be played at the

⁵⁵ Liudmila Georgiesvkaya, e-mail message to author, October 31, 2014.

same time. For example, in subsection (b1), from mm. 54-56, he uses members of the permutation R_0 in the cello line, the prime row in the piano right hand, and the permutation I_2 in the piano left hand. Subsection (b1) is built on permutations R_0 , I_0 , I_2 and for the closing theme (b2), the permutation RI_0 , R_9 , R_0 , and P_2 . The (b2) subsection ends with the same permutation R_0 , which is located in the introduction of the piece in the cello line. R_0 is a permutation that is the reverse of the prime row. On the other hand, permutation P_2 is used instead of the prime row in the piano line. The same technique of using multi-rows is repeated in the last three measures of subsection (b2) from mm. 74-76. For example, in the left hand, the permutation P_2 recalls the main melody from the beginning of part B in the cello line (mm. 54-56): whereas in the right hand, he reutilizes the cello melody from the beginning of the section, with the permutation R_2 . He continues with the permutation R_0 in the cello line. Part B ends in m. 76, preparing the listener for an upcoming aggressive and energetic coming section with an accelerando marking and sixteenth notes figures (see Figure 9).

[74]

R_0 (11, 8, 6, 3, 2, 7, 1, 0, 9, 10, 4, 5)

R_2 (1, 10, 8, 5, 4, 9, 3, 2)

P_2 (7, 6, 0, 11, 2, 3, 9, 4, 5, 8, 10, 1)

Figure 9: Cordero: Cello Sonata, mvmt. I, mm. 74-76. Ending of (b2).

The second A section in this movement is based on new material and its structure is organized in four theme groups: (a4) (mm. 77-85.1), (a5) (mm. 85.5-98), (a6) (mm. 99-111), and (mm. a7) (mm. 112-134). The entire section is distinctive because of percussive repetition of the sixteenth notes and its rhythmic vigor throughout the movement. In theme group (a4), music returns to the same tempo from the beginning of the piece and it also begins with the prime row. However, the piano begins with the permutation I_4 instead of P_2 . Besides the percussive character created by the repetition of sixteenth notes, the section also shares rhythmic cell patterns from previous sections. For example, m. 79 shares the same rhythmic figures from m. 48 (see Figure 10).

The image shows a musical score for the Cello Sonata, first movement, measures 74-82. The score is written for cello and piano. The cello part (top staff) begins with a tempo change to 'Tempo I' at measure 78. The piano part (bottom staff) features a series of sixteenth-note patterns. The score includes various musical notations such as 'cresc.', 'accel.', 'mf', and 'f'. Above the staves, there are labels for rhythmic cells: 'R0 (11, 8, 6, 3, 2, 7, 1, 0, 9, 10, 4, 5)' and 'P2 (7, 6, 0, 11, 2, 3, 9, 4, 5, 8, 10, 1)'. A large 'X' is drawn over the piano part from measure 78 to 82.

Figure 10: Cordero: Cello Sonata, mvmt. I, mm. 74-82.

The theme group (a5) is characterized for the texture that prolongs the melody, which comes from the main melodic idea in Part B. The intervals in mm. 83-84 create technical challenges for a cellist, including awkward string crossings and long, sudden leaps across the fingerboard. According to the pianist Liudmila Georgievskaya “sometimes a re-arrangement between the hands is needed (for the piano). For instance, in mm. 85-93, in order to create a long legato line in m.92, I play the first five 16-th notes with the left hand and only the first three with the right.”⁵⁶ (see Figure 11).

The image displays a musical score for the Cello Sonata, first movement, measures 85-94. The score is written for cello and piano. The first system (measures 85-87) shows the cello part with a melodic line and the piano part with a complex texture. The second system (measures 88-91) continues the melodic line in the cello and the complex texture in the piano. The third system (measures 92-94) shows the cello part with a long legato line and the piano part with a complex texture. The score includes dynamic markings such as *mf*, *mp*, and *f*, and articulation markings such as accents and slurs. A blue bracket highlights a specific passage in the piano part of the first system.

Figure 11: Cordero: Cello Sonata, mvmt. I, mm. 85-94. (a5) theme group.

⁵⁶ Liudmila Georgievskaya (personal communication October 31, 2014)

Subsection (a6) is characterized by recitation of the main melody coming from a2 in m. 99, utilizing the prime row again. This segment recapitulates the same melodic idea, which is full of new textures. For example, the composer adds accented pizzicato technique in the cello line. Abrupt descending scales in the piano part based on the prime row help to shape the music towards an energetic temperament in m. 106 (Figure 13). In this section, “re-arrangement between the hands is needed as well.”⁵⁷ For example in m. 103, the jumps are clumsy unless you play the “c#” octave with the left hand and the last two octaves with the right hand (see Figure 12). In m. 107, the last octave should be played with two hands, in order to be on time for the downbeat of the next measure and for the high “d” that follows it (see Figure 13).”⁵⁸

103

The image shows a musical score for measures 103 and 104. The top staff is for the cello, and the bottom two staves are for the piano. In measure 103, the cello line has a pizzicato instruction and a piano line has a descending scale. In measure 104, the piano line continues with a descending scale. Dynamics include f, mf, p, and pp. A bracket labeled '8' spans the piano line in measure 103.

Figure 12: Cordero: Cello Sonata mvmt. I, mm. 103-104.

⁵⁷ Ibid.

⁵⁸ Ibid.

106 [I₀ (5, 6, 0, 1, 10, 9, 3, 8, 7, 4, 2, 11)]

P0 (5, 4, 10, 9, 0, 3, 4, 10, 5, 6, 9, 11, 2)]

Figure 13: Cordero: Cello Sonata, mvmt. I, mm. 106-108.

(a7) returns with variations of the marching character from mm. 112-134. To illustrate, the piano plays short motivic ideas with members of the prime row in mm. 116-118. Meanwhile, the cello creates an energetic texture with members for the R_0 . This is achieved by the combination of the sixteenth notes, a rich harmony created by one pedal note the integer 9, 8, 6, 3 (Figure 14).

[I₀ (5, 6, 0, 1, 10, 9, 3, 8, 7, 4, 2, 11)]

116

[R₀ (11, 8, 6, 3, 2, 7, 1, 0, 9, 10, 4, 5)]

P0 (5, 4, 10, 9, 0, 3, 4, 10, 5, 6, 9, 9, 11, 2)]

Figure 14: Cordero: Cello Sonata, mvmt. I, mm. 116-118.

After the thundering of sounds resonates in subsection (a7), this music continues with the same texture. The cello line plays a sequence of glissandi with row R_0 , until the music arrives at a long harmonic E on the D string while the piano sets the mood with *rallentando* and *diminuendo* markings. The exciting sounds of thunder and marching return to a peaceful state. The mood changes once more at the arrival of B' recapitulation, the *Andante quasi Adagio*.

The structure of *Andante quasi Adagio* (B') is shorter than *Moderato quasi Andante* (B) section and it is also divided in two main themes, (b1') which are located in mm. 132-138; and b2' found in mm. 139-145. The melody is even more harmonized and elaborated than in the B section. This is achieved through the addition of double stops (see Figure 15). In contrast with the cello, the piano sustains chords within permutations I_0 and P_0 . This section is intended to be slower than its homologous B section. Cordero clearly specifies that the quarter equals 69 beats per minute (BMP).

131

Andante quasi Adagio (♩ ca. 69)

mp molto espress.

dim.

pp

p

$P_0 (5, 4, 10, 9, 0, 3, 4, 10, 5, 6, 9, 9, 11, 2)$

$I_0 (5, 6, 0, 1, 10, 9, 3, 8, 7, 4, 2, 11)$

cresc.

Figure 15: Cordero: Cello Sonata, mvmt. I mm.131-133.

The final recapitulation (A sections) returns in *Allegro appassionato*, mm. 146-186. *Allegro appassionato* is divided into subsections (a8) (mm.146-163), (a9) (160-167) and the coda (168-186). (a8) section expands, and develops the individual components that characterized previous A sections. This section utilizes rows and motivic ideas found at the beginning of the piece: mm. 1-4 (see Figure 16).

146 *Allegro appassionato* (♩ ca.112)

f P0 (5, 4, 1, 9, 0, 3, 4, 10, 5, 6, 9, 11, 2)

f P2 (7, 6, 0, 11, 2, 3, 9, 4, 5, 8, 10, 1)

Figure 16: Cordero: Cello Sonata, mvmt. I, mm.146-149.

(a9) subsection and Coda are the most powerful in terms of sound and technique. The passages are like a rollercoaster made of stacks of chords in the piano part and double stops in the high register of the cello. Complex rhythmic patterns are present in the piano part, which makes this section technically demanding. (a9) continues an unrestrained passage until m. 167, where we can hear the music approaching a cadence. Cordero adds closing material (coda) that is driven by motivic ideas from previous sections. Secure technical preparation is needed in this section, as the cellist must dominate some uncomfortable shifts covering large intervallic distances (see Figure 17).



Figure 17: Cordero: Cello Sonata, mvmt. I, mm. 164-169.

In Figure 18, in mm. 170-171, “rhythmic formulas bring an acoustical challenge for the piano in its needs to emulate a percussive instrument without losing its tone quality.”⁵⁹



Figure 18: Cello Sonata mvmt. I, mm. 170-173.

When the music arrives at m. 175, a descending piano scale emerges with the R0, preparing the listener for the final bars of the section (see Figure 19).

⁵⁹ Ibid.



Figure 19: Cordero: Cello Sonata, mvmt. I, mm. 174-177.

Afterwards, the piano continues the conclusive material with short fragments of ideas taken from the I_{10} row and P_2 from mm. 178-181. The cello line continues with members of the prime row in mm. 182-186 with Cordero majestically giving an independent gesture to every integer and finishing the movement with each member of the row. The composer fits every component of the R_0 permutation in the last two measures of the piece within the piano line, ending the movement with the tetrachords [5, 10, 4, 9]. These pitch classes are also members of the prime row, which in fact are utilized in the last beat's sonority beat of the movement (see Figure 20).

Figure 20: Cordero: Cello Sonata, mvmt. I, mm. 182-185.

Second Movement: Adagio

As shown in Figure 21 the II movement is organized in ternary form: ABA. Figure 22 shows the rows –in color- used in the construction of the second movement.

II Movement: Adagio							
Theme Group	A		B			A	
	a1	a2	b1	b2	b3	a3'	a4'
mm.	1-19	19-36	37-43	43-52	52.5 - 61	62-72	72-84

Figure 21: Form diagram of the *Adagio* Movement.

As in any slow second movement from a classical or romantic sonata, the second movement contains the most relaxed tempo within this piece. Its overall form can be described as thoughtful and delicate with grotesque sounds in the middle section or part B. Similar to with the first and third movement, the permutations that are presented in the first melodic ideas at the beginning of the piece are also the ones that conclude the movement. In the second movement, the case is different. It begins with the permutations I9 and P0, and it ends with two different ones, are I4 and I10. Another feature that separates this movement from the other two is the use of extended techniques. For example, the pianist is instructed to play inside the piano to pluck the instrument's strings. The performer needs to figure out when to stand up and when to sit down so their sound is no disturbance of any kind while doing this. Another challenge of this technique is in the holding of the pedal while the pianist is standing.⁶⁰

⁶⁰ Ibid.

	I ₀	I ₁₁	I ₅	I ₄	I ₇	I ₈	I ₂	I ₉	I ₁₀	I ₁	I ₃	I ₆	
P ₀	5	4	10	9	0	1	7	2	3	6	8	11	R ₀
P ₁	6	5	11	10	1	2	8	3	4	7	9	0	R ₁
P ₇	0	11	5	4	7	8	2	9	10	1	3	6	R ₇
P ₈	1	0	6	5	8	9	3	10	11	2	4	7	R ₈
P ₅	10	9	3	2	5	6	0	7	8	11	1	4	R ₅
P ₄	9	8	2	1	4	5	11	6	8	10	0	3	R ₄
P ₁₀	3	2	8	7	10	1	5	0	1	4	6	9	R ₁₀
P ₃	8	7	1	0	3	4	10	5	6	9	11	2	R ₃
P ₂	7	6	0	11	2	3	9	4	5	8	10	1	R ₂
P ₁₁	4	3	9	8	11	0	6	1	2	5	9	10	R ₁₁
P ₉	2	1	7	6	9	10	4	11	0	3	5	8	R ₉
P ₆	11	10	4	3	6	7	1	8	9	0	2	5	R ₆
	RI ₀	RI ₁₁	RI ₅	RI ₄	RI ₇	RI ₈	RI ₂	RI ₉	RI ₁₀	RI ₁	RI ₃	RI ₆	

Figure 22: Rows used in the second movement.

The movement is in ABA form. Each part is divided in subsections. The **A** part is divided in subsections: (a1) (1-19), (a2) (19-36). Part B is divided in subsections: (b1) (mm. 37-41), (b2) (mm. 37-51), (b3) (51-61) and part A' is divided in the subsections: (a3) (mm. 62-72), (a4) (mm. 72-84). In the first subsection (a1), begins with an introduction of the row I₁₁ (4, 5, 11, 0, 9, 8, 2, 7, 6, 3, 1, 10) in the cello part. The cello line begins with four measures of a solo lyrical phrase and the piano follows the line by gently adding chords using every member of the permutation P₂ (7, 6, 0, 11, 2, 3, 9, 4, 5, 8, 10, 1) in m. 4. From mm. 5-12, the melody is developed in the cello line, which creates a conversational musical line with the countermelody expressed by the piano. A complex rhythm helps to materialize the alternation of the rhythmical figures. For example, in m. 5-11 you will find groups of four - five and seven notes per measure within measures of 2/4 & 3/4. This makes the

collaboration between the piano and cello very interesting and metrically ambiguous (See Figure 23).

II

[I11(4, 5, 11, 0, 9, 8, 2, 7, 6, 3, 1, 10)]

Adagio (♩ ca. 63)

[Po (5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 8, 11)]

Figure 23: Cordero: Cello Sonata, mvmt. II, mm 1-9.

Sound textures are the same from the beginning of the movement until the final cadence, created by fervent double stops quintuplets. The cello presents these rhythmic figures in m. 17, which expose a motivic idea in the following measure (m.18). This gesture signals that the section is about to conclude. The (a2) section starting at m. 18, which contains extended technique for the piano line, can be divided into three theme groups.

Figure 24 illustrates the chart written by Cordero himself, with specific directions on how to perform extended techniques on the piano.




1.)  *bajar las teclas silenciosamente*
depress the keys silently
 *pizzicato en las cuerdas*
pizzicato on the strings
 *glissando con la uña sobre las cuerdas*
glissando with the fingernail on the strings

Figure 24: Direction on how to use extended techniques on the piano.

Subsection (a2) is the countermelody of subsection (a1) and it's organized through I_{11} and I_6 . The piano sets the tone through its theme presented in m. 18. The pianist is instructed by symbols presented by Cordero (shown above in Figure 24) in the creation of these specific sound effects.

After the motivic idea presented by members of the I_{11} permutation in the piano line, the group theme is first introduced in the second beat of m. 10 by the cello (see Figure 25).

This new motivic idea is developed within the following measures until the music arrives on its consequent phrase (a2) in m. 26, which is driven by the permutation I_6 . A long descending musical line starting at mm. 26-36 forms the music. If this melodic contour was to be described in a non-musical manner, we could picture a leaf falling from a tree, then being picked up by a the wind and floating downward again. Such downward motion is created by sequences using permutations I_6 and I_{11} until the music arrives in the subsection (b1). Upon arrival, a theme begins in m. 37 (see Figure 25).

14 [I11 (4, 5, 11, 0, 9, 8, 2, 7, 6, 3, 1, 10)]

18 [I11 (4, 5, 11, 0, 9, 8, 2, 7, 6, 3, 1, 10)]

[I4 (11, 0, 6, 7, 4, 3, 9, 2, 1, 10, 8, 5)]

Figure 25: Cordero: Cello Sonata, mvmt. II mm. 14-20.

31 [I11 (4, 5, 11, 0, 9, 8, 2, 7, 6, 3, 1, 10)]

[I6 (11, 0, 6, 7, 4, 3, 9, 2, 1, 10, 8, 5)]

35 [I11 (4, 5, 11, 0, 9, 8, 2, 7, 6, 3, 1, 10)]

[I6 (11, 0, 6, 7, 4, 3, 9, 2, 1, 10, 8, 5)]

Figure 26: Cordero: Cello Sonata, mvmt. II, mm. 31-38.

Subsection (b1) sounds whimsical and ironic due to the dissonant sounds that are created between these paired notes (Tritones, aug. 5th, dim. 4th, etc.). This subsection is less lyrical than the previous section. Subsection (b1) is organized in six groups of eighth notes in m. 37, followed by a long sustained note, which lasts around two measures: mm. 38-39.

Those groups of notes are a development of short motivic ideas from mm. 43-51. Such a development happens through a sound elaboration in the cello, consisting of dry and harsh double stops, murmuring sixteenth notes sonorities in the piano (divided in groups of six), with permutations RI₀ and I₆ complement the sound. The subsection (b3) finally lands on a fierce sounding chord in m. 52.

In B section, the cello begins performing a closing theme, which belongs to (b3). This happens on beat four in the same measure, while the piano sustains a chord at mm. 52-53 (see Figure 27).

51 [I11 (4, 5, 11, 0, 9, 8, 2, 7, 6, 3, 1, 10)][I7 (0,1,7,...)]

RI0 (11,2,4,7,8,3,9,10,1,0,6,5) [I6(11 0, 6, 7, 4, 6 3, 9, 2, 1, 10, 8, 5)]

Figure 27: Cello Sonata Movement II, mm. 51-53.

The closing theme is a mixture of a fragmentation between the piano and cello lines from the beginning of (b1) section. Here, the cello line introduces the permutation I_7 for the first time in the piece. The cello line in mm. 54-57 is very expressive and beautiful. Meanwhile, the piano accompanies the solo line with gentle and soft motivic ideas. The section ends in m. 57 and mm. 57.5-61 serve as pivotal passage to the recapitulation of the piece in m. 62 (see Figure 28).

60

[I_6 (11, 0, 6, 7, 4, 3, 9, 2, 1, 10, 8, 5)] [I_{11} (4, 5, 11, 0, 9, 8, 2, 7, 6, 3, 1, 10)]

[I_6 (11, 0, 6, 7, 4, 3, 9, 2, 1, 10, 8, 5)]

Figure 28: Cordero: Cello Sonata, mvmt. II, mm. 60-63.

The recapitulation occurs in mm. 62-84. It shares the same permutations, lyrical and metrical and permutations found in subsection (a1) until m. 71. However, the piano does not begin with the same permutation but continues the line with the permutation I_6 (11, 0, 6, 7, 4, 3, 9, 2, 1, 10, 8, 5) and then in m. 64 proceeds with the prime row. Therefore, the accompaniment texture sounds different from the introduction of this movement. This whole section ends where the cello and piano play together in unison. The above-mentioned unison creates a climatic point in this section. After the climax, in m. 72, the music decreases in volume and dynamic. The extended techniques applied in section B is also employed during the final measures. The listeners imagine that Cordero is recalling music

from the past. The music continues in a calm atmosphere with members of the I_0 row in the cello. The piano finishes the movement with permutation I_6 and short motivic ideas until the movement arrives into its last resolution, a B diminish chord (see Figure 29).

71 [11 (4, 5, 11, 0, 9, 8, 2, 7, 5, 3, 1, 10)]

75 [10 (5, 6, 0, 1, 10, 9, 3, 8, 7, 4, 2, 11)]

80 [10 (5, 6, 0, 1, 10, 9, 3, 8, 7, 4, 2, 11)]

[16 (11, 0, 6, 7, 4, 3, 9, 2, 1, 10, 8, 5)]

[16 (11, 0, 6, 7, 4, 3, 9, 2, 1, 10, 8, 5)]

[16 (11, 0, 6, 7, 4, 3, 9, 2, 1, 10, 8, 5)]

Figure 29: Cordero: Cello Sonata, mvmt. II, mm. 71-84.

Third Movement: Vivace

The third movement is written in A-B-A ternary form. In comparison with the other two, this movement is outlined by Panamanian “strong rhythms”⁶¹ *punto* and *mejorana*. The occurrence of hemiolas can be found as this movement progresses, which consists of “the articulation of two units of triple meter as if they were notated as three units of duple metre.”⁶² Hemiolas are components of the native Panamanian rhythm in the *mejorana* and *punto*.⁶³ Another characteristic of this part is a vast section played in pizzicato: for example, at the beginning of the piece. Last but not least, the third movement utilizes the greatest range and variety of permutations. In Figure 30, the matrix shows the rows used in the first movement and Figure 31 shows the form diagram of the *Allegro molto appassionato* movement.

	I ₀	I ₁₁	I ₅	I ₄	I ₇	I ₈	I ₂	I ₉	I ₁₀	I ₁	I ₃	I ₆	
P ₀	5	4	10	9	0	1	7	2	3	6	8	11	R ₀
P ₁	6	5	11	10	1	2	8	3	4	7	9	0	R ₁
P ₇	0	11	5	4	7	8	2	9	10	1	3	6	R ₇
P ₈	1	0	6	5	8	9	3	10	11	2	4	7	R ₈
P ₅	10	9	3	2	5	6	0	7	8	11	1	4	R ₅
P ₄	9	8	2	1	4	5	11	6	8	10	0	3	R ₄
P ₁₀	3	2	8	7	10	1	5	0	1	4	6	9	R ₁₀
P ₃	8	7	1	0	3	4	10	5	6	9	11	2	R ₃
P ₂	7	6	0	11	2	3	9	4	5	8	10	1	R ₂
P ₁₁	4	3	9	8	11	0	6	1	2	5	9	10	R ₁₁
P ₉	2	1	7	6	9	10	4	11	0	3	5	8	R ₉
P ₆	11	10	4	3	6	7	1	8	9	0	2	5	R ₆
	R ₀	R ₁₁	R ₅	R ₄	R ₇	R ₈	R ₂	R ₉	R ₁₀	R ₁	R ₃	R ₆	

Figure 30: Rows used in the third movement.

⁶¹ Casal, “Panamanian Art Music for Strings.”

⁶² Julian Rushton, “Hemiola,” Grove Music Online. Oxford Music Online. Oxford University Press, accessed November 20, 2014, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/12768>.

⁶³ Casal, “Panamanian Art Music for Strings.”

III Movement: <i>Vivace</i>					
A					
Theme Group	a1	a2	a3	a4	
mm.	1-26	27-52	53-84	85-102	
B					
Theme Group	b1		b2		
mm.	37-43		44-52		
A'					
Theme Group	a5	a6	a7	a8	CODA
mm.	127-148	149-162	163-179	180-191	180-218

Figure 31: Form diagram of the *Allegro molto appassionato* movement.

The first A section is comprised of four subsections: (a1) mm. 1-26, (a2) mm. 27-52, (a3) mm. 53-84, (a4) mm. 85-102. What characterizes subsection (a1) from subsections (a2) and (a3) is the use of the same melodic contour from the two bar introduction of (a1) where each is developed differently. In comparison with (a1) and (a2), (a3) begins the section with an augmentation of the main theme of (a1) and the second motive is the same as m. 2 of (a1). Group (a4) on the other hand, is rhythmically related to the beginning of the piece with a persistent group of 6/8 pedal notes. The section ends with the main motivic cell of the beginning of the piece in mm. 100-103. In contrast with the first movement, that also uses the prime row, the third movement uses the 6/8-meter form the *mejorana* rhythm, giving a completely different texture and contour to the movement.

Subsection (a1) initiates the piece by using each member of the prime row in the cello line. In the piano staff line, Cordero elaborates the accompaniment with members of the permutation P₂. In mm. 2-6, the music responds to the motivic idea presented in the cello line. Landing in the accompaniment moving in a descending line with members of

permutation P_2 , then landing in the prime row in m. 7 with syncopated rhythms, thus creating a different texture in the accompaniment of the cello (see Figure 32).

Vivace (♩.ca. 120)

pizz. *f* arco *mf*

mp *mp* *mf* *mp* *mf* *mp* *mf*

f *f marc.* *mf*

mf *f* *mf* *cresc.* *f* *p*

[P_2 (8, 10, 11)] [P_0 (5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 8, 11)]

Figure 32: Cordero: Cello Sonata, mvmt. III, mm. 1-10.

In Figure 33, we can appreciate an example of a traditional meyorana rhythm from Panama. The melody for a meyorana is usually given to the rabel, a three-string fiddle from this regional instrument.

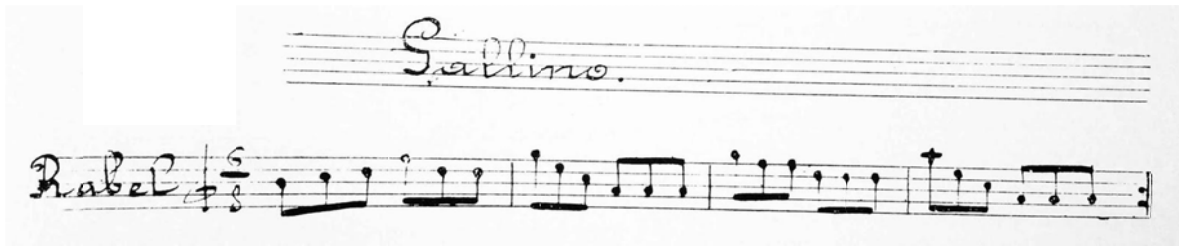


Figure 33: Rabel rhythmic line.⁶⁴

Cordero continues elaborating this section by giving the main motivic idea to the piano in m. 15. Meanwhile, in m. 17, the permutation I_4 further develops the theme until m.26.

Sub-group (a2) continues the music with the same 6/8 tempo marking. The motivic idea is slightly different from (a1) because permutation I_6 overlaps with the prime row. Technically, this passage is more demanding for the cello; due to the leaps and gestures created by glissando technique. Such texture helps to create interesting sounds. In m. 29, the piano begins to elaborate a new texture through long leaps between the notes (see Figure 34). This gesticulation will be developed in m. 33 by increasing the rhythmic cell containing groups of three to eight 8th notes. Refer to Figure 34 to find such rhythmic cell increases.

In m. 32, the elaboration of (a2), resumes with a different texture. The texture is created by groups of long notes containing members of the prime row. These augmented long notes include: a) dotted quarter note, b) dotted quarter slurred to an 8th note (thus momentarily creating a syncopation), followed by c) a dotted quarter slurred to a quarter. All of these happen in mm 33-42. The piano also changes its contour through the elaborate

⁶⁴ Narciso Garay, *Tradiciones y Cantares de Panama*. (Panama: Litho Impresora Panamá S.A., 1982), pp. 191.

cycles of leaps from one integer to another with rhythmic patterns of syncopated eighth notes separated by an eighth rests, found in members of the permutation I_{11} (see Figure 35).

25 [16 (11, 0, 6, 7, 4, 3, 9, 2, 1, 10 8, 5)][Po (5, 4, 10, 9, 0, 1)],]

29 [Po(5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 8, 11)]

Figure 34: Cordero: Cello Sonata, mvmt. III, mm.25-32.

33 [Po(5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 8, 11)]

[I₁₁ (4, 5, 11, 0, 9, 8, 2, 7, 6, 3, 1, 10)]

Figure 35: Cordero: Cello Sonata, mvmt. III, mm.33-37.

The closing section of (a2), takes over from mm. 47-54 onwards. In this section, we can hear how Cordero manipulates the row I_0 by repeating the same material in mm. 48-49. Afterwards, the section finishes with several pizzicato double stops built from integers 7 and 2, thus creating a b minor chord (see Figure 36).

Figure 36: Cordero: Cello Sonata, mvmt. III, mm. 47-51 (a2) closing section.

After the reiteration of chords, a sudden glissando appears in the cello line. This section closes with chords built by integers 5 and 9 (f minor harmonies) down to integers 4 and 10 (e minor) (see Figure 37).

In-group theme (a3), the music continues with the same intensity contained in the beginning of the piece. The section begins in mm. 53-54, with the piano presenting a new contour through a sequence formed by an ascending line of chord members of the permutation I_{11} and the prime row. Because of some of its rhythmic formulas, it is difficult to find an appropriate sound color for the piano in this section. As before, the piano needs to imitate a percussive instrument without losing its tone quality. As seen in 7 the motive previously presented in the introduction of (a1) this theme is developed through hemiolas in

the cello part, mm. 55-56. In m. 57, the music repeats the same rhythmic characteristics of the main theme in (a1).

52 [Po (5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 8, 11) pizz.]

56 [Po (5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 8, 11)]

I11 (4, 5, 11, 0, 9, 8, 2, 7, 6, 3, 1, 10)

Figure 37: Cordero: Cello Sonata, mvmt. III, mm. 52-59. Closing section in (a3) & beginning of section (a3).

Cordero then imitates mm. 3-4 from (a1) an octave lower in m. 60. This is elaborated through an ascending line composed by integers 2, 3, 6, 8 of the prime row. These integers are shaped in the cello line with artificial harmonic sounds. This short passage found in mm. 60 is technically challenging for the cellist for several reasons. The first one is the relatively fast speed of the movement, along with a sudden change of left hand position from having to pluck the string the measure before. Secondly, the nature of the left hand movement described above makes the clear execution of those artificial harmonics a difficulty of its own (see Figure 38).



Figure 38: Cordero: Cello Sonata, mvmt. III, mm. 60-63.

We observe that the music retains its melodic contour in mm. 61-72 from mm. 33-43 in the cello. Then in mm. 73-76, variations of the four main motivic ideas from (a1) can be heard until the closing section of (a3) arrives in mm. 77-84. In mm. 77-80, the piano takes over with the first two main motivic ideas of the piece, which has been written with members of the prime row on the left hand, and P_2 in the right hand. Starting in mm. 81-84, both cello and piano continue preparing the listener for the next section by building excitement through glissandos in the cello and ascending lines containing permutation P_2 in octaves within the piano part.

What is exhilarating is how Cordero combines rows in this passage. For example, in the cello line, P_{10} is the row that has been exploited until m. 82 appears. Meanwhile, the piano continues the musical line, playing octaves from members of P_2 and P_4 rows. The cello joins P_2 in m. 82 and the piano line switches to the row I_{11} in m. 83. Afterwards, rhythmic cells taken from motivic ideas found in (a1) main theme (specifically in mm. 2-4) share the same melodic contour in both piano and cello parts, first the piano line, then the cello. All of this happens in mm. 82 through 84 (see Figure 39).

Figure 39: Cordero: Cello Sonata, mvmt. III, mm. 80 – 83. Closing section of theme group (a3).

Group theme (a3) is completed in m. 84, similarly to the ending of (a2), but instead it finishes an ascending glissando from integer 1 to integer 7 (see Figure 40).

With no breaks between sections, subsection (a4) takes over in mm. 85-101, with more musical excitement and intensity than subsections (a1), (a2) and (a3). The (a4) subsection is a variation of rhythmic patterns found in m. 1, also serving as link to B section. The rhythmic cell which creates an effect of excitement depicted throughout the entire section, is the grouping of eighth notes that start at the second half of the first beat with four groups of three slurred eighth notes, thus creating a syncopated rhythm. In this passage, we can observe that Cordero plays around with the manipulation of rows: when playing two or more lines of different rows at the same time, their members are shared. For example, in m. 89, permutation I_{11} is found. On a separate note, integers 1 and 10 are needed to finish the row, thus also utilizing permutation P_2 in the cello line (see Figure 41).

Figure 40: Cordero: Cello Sonata, mvmt. III, mm 84-91. Subsection (a4).

After an uplifting feeling of excitement created by subsection (a4) music textures are finalized in an abrupt, emphatic F note in m. 103. This effect is created through a rhythmic variation of m. 1-2 from (a1), exactly like in subsection (a2). However, instead of ending with the integer 5-4 downward, it ends in reverse (upward) with a glissando from integers 4 to 5. Subsection (a4) is finalized with members of the row P2 in both cello and piano lines, along with members of the prime row (see Figure 41).

Another interesting feature in this movement is the organization of a specific sequence made by the connection of two distinctive slow sections. One is taken from the first movement, and the other comes from the third movement (just the slow material). This is developed through three sections that share the same melodic contour, which is found in the original motive of Movement I in its own b1 section. Cordero cleverly sequences the first and third movements, indicating the tempo markings in each group from a fast to a

slow pace. For instance, the first movement has a section marked *Moderato Quasi Andante* (quarter ca. 72) and another section named *Andante Quasi Adagio* (quarter ca. 69), and the third movement contains a section *Molto Adagio* (quarter ca. 60) (see Figure 42).



Figure 41: Cordero: Cello Sonata, mvmt. III, mm. 100-103.

54 **Moderato quasi Andante** (♩ ca. 72)
mp cantando *mp*

135 **Andante quasi Adagio**
 (♩ ca. 69)
mp molto espress. *cresc.* *mf*

103 **Molto Adagio**
 (♩ ca. 60)
mf *mp* *mf*

Figure 42: Cordero: Cello Sonata, mm. 51-58 (I mvmt.), mm. 135-137 (I mvmt.), mm. 103-106 (III mvmt.). Slow themes from movement I and II.

Analysis of the return to the third movement is marked by this slow, lyrical next section. This B' section is divided in two subsections - b1 (mm.103-118) and b2 (mm. 118-131). This section is a reprise of (b1) from the first movement. In this movement, (b1) quotes the first exact melody line from measures (54-56) from the first movement and as a whole, the section is longer than the previous two (b) sections from the first movement.

As in the *Moderato quasi andante* section, music in (b1) is shaped by permutation R₀ and the same cello line from mm.54-56 (b1, Movement I) in mm. 103-106. Therefore, these rows give a natural identity that differentiates this section from the rest of the piece; where the prime row usually is the predominant row that marks the melodic line on each section. The piano line, in comparison with the (b1) section from the *Moderato quasi andante*, creates a different texture with members of the prime row and then with members of permutation R₁₀. The music in m. 113 is shaped by the addition of a new row R₅ (4, 1, 11, 8, 7, 0, 6, 5, 2, 3, 9, 10), which overlaps in m. 106 with permutation R₀ (see Figure 43).

Subsection (b1) ends in a tranquil state on pitch class 2 (d natural) in m. 118. Subsection (b2) contains an alternation of angry and dreamy characters, the latter ending the section. The piano begins (b2) in m.118 with the next theme group, which is based on permutation R₀. It continues this phrase with the main motive presented in m.103: at first in the right hand, then in the left hand. This is created by passing the motivic cell of integers 8, 6, 3, 2, 7 of the melody in the left hand through a descending major second interval, happening in mm. 118-119.

103 **Molto Adagio** (♩ ca. 60)

[R0 (11, 8 6, 3, 0)]

P0(5,4,10,9,0,1,7,2,3,6,9,11)

104

[R0(11, 8 6, 3, 2, 7 1, 0, 9, 10, 4, 5)]

[P0(5 ,4, 10, 9 , 0 1, 7, 2, 3 ,6, 3, 11)]

[R10 (11, 2, 4, 7, 8, 3, 9, 10)]

Figure 43: Cordero: Cello Sonata, mvmt. III, mm. 103-107. (b1) slow section introduction.

The alternation of characters is more noticeable as the music progresses. Abruptly, the cello is indicated to perform rough sounds in mm. 121-122.5, followed by soft harmonics starting from the last beat of m.122, extending to m. 123. The piano on the other hand continues developing the main motivic idea from the beginning of the piece (mm.1-2) with members of the prime row in mm. 121-123 (see Figure 44).

Once the last notes from section B are played, the recapitulation A' revives the excitement. A' occurs in mm. 132-218 and is composed of subsections: (a5) mm. 131-148, (a6) mm. 149-162, (a7) mm. 163-179, (a8) mm. 180-191 and the CODA (mm. 192-218). In this section, Cordero restates the ideas presented in part A by elaborating them in a variety of forms. Furthermore, due to the nature of these various rhythmical forms, the performers can play this final section with more joy and excitement.

The piano initiates subsection (a5) through a variation of the main theme from mm. 1-2 at (a1) in mm. 132-133 with members of permutation P_2 in the left hand, and P_1 in the right hand. Then, an answer to the musical statement made by the piano is followed by a two-bar motivic idea in the cello in mm. 133-135 involving permutation RI_0 . All this is repeated by elaborating of this conversation (see Figure 46).

Figure 46: Cordero: Cello Sonata, mvmt. III, mm. 127-129. End of section (b1) and the beginning of section (a5).

Once the last notes from section B are played, the recapitulation A' revives the excitement. A' occurs in mm. 132-218 and is composed of subsections: (a5) mm. 131-148, (a6) mm. 149-162, (a7) mm. 163-179, (a8) mm. 180-191 and the CODA (mm. 192-218). In this section, Cordero recapitulates the ideas presented in part A by elaborating them in a

variety of forms. Furthermore, due to the nature of various rhythmical forms, the performers can play this final section with more joy and excitement due to the nature of various rhythmical forms explained earlier in the chapter.

The piano initiates subsection (a5) through a variation of the main theme from mm. 1-2 at (a1) in mm. 132-133: with members of permutation P_2 in the left hand, and P_1 in the right hand. Then, an answer to the musical statement made by the piano is followed by a two-bar motivic idea in the cello in mm. 133-135 involving permutation RI10. All this is repeated by elaborating the conversation (see Figure 47).

The musical score for Figure 47 consists of two systems of staves. The first system (mm. 135-139) features a piano part with a right-hand melody and a left-hand accompaniment. The piano part includes a green label $RI0(11, 2, 4, 7, 8, 3, 9, 10, 1, 0, 6, 5)$ above the staff. The piano part also includes several permutation labels: $P_1(6, 5, 11, 10, 1, 2, 8, 3, 4, 7, 9, 0)$, $P_2(7, 6, 0, 1)$, $P_2(8, 10, 1)$, $P_0(5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 9, 11)$, and $P_0(5, 4, 10, 9, 0, 1)$. The cello part (mm. 133-135) includes a blue label $RI0(11, 8, 6, 3, 2, 7, 1, 0, 9, 10, 4, 5)$ and a red label $P_1(8, 3, 4, 7, 9, 0)$. The second system (mm. 139-143) features a piano part with a right-hand melody and a left-hand accompaniment. The piano part includes a red label $P_2(7, 6, 0, 11, 2, 3, 9, 4, 5, 8, 10, 1)$ and a red label $P_2(7, \dots, 10, 1)$. The cello part (mm. 139-143) includes a red label $P_1(8, 3, 4, 7, 9, 0)$ and a red label $P_2(7, \dots, 10, 1)$. The score also includes various musical notations such as notes, rests, and dynamics.

Figure 47: Cordero: Cello Sonata, mvmt. III , mm. 135-143. Subsection (a5) introduction.

Cordero repeats mm. 1-6 (a1) in mm. 143-148 (a5), closing the section with glissando moving upwards in m. 148 (see Figure 48).



Figure 48: Cello Sonata Movement III, mm. 144-148. Ending of section (a5).

After subsection (a5), the music moves to subsection (a6) in mm. 149. This section shares the same rhythmic characteristics of subsection (a4) in the cello line, but what differs in this subsection, is that it returns to the prime row instead of permutation P_2 . Since (a6) is reached through the continuous repetition of chords, one hears in the line created by the piano and cello (see Figure 49).

Figure 49: Cordero: Cello Sonata, mvmt. III, mm. 149-152. Beginning of Section (a6).

Subsection (a6) ends with upward glissando as seen in the ending of subsection (a4). After the glissando, a grand pause occurs in m. 162. This effect helps to prepare the listener for the next section. After a G.P. in 9/8, subsection (a7) arrives.

Subsection (a7) (mm.163-179) shares material in the cello line from the subsection (a2) (mm.37-43). The cello line begins the subsection with members of the prime row. Subsequently, the line continues with permutation P_2 . Meanwhile, the prime row remains until m. 165, when the left hand line of the piano continues the line with permutation P_2 (see Figure 50).

The image displays a musical score for Cordero's Cello Sonata, movement III, measures 161-169. The score is written for cello and piano. The cello line begins in measure 161 with an upward glissando, indicated by a red arrow. This is followed by a grand pause in measure 162. The piano line begins in measure 163 with a prime row. The score is annotated with permutation labels: $[Po(5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 9, 11)]$ and $[P_2 (7, 6, 0, 11, 2, 3, 9, 4, 5, 8, 10, 1)]$. Red arrows indicate the glissando and the start of the piano line. The score is in 9/8 time and features a key signature of one sharp (F#).

Figure 50: Cordero: Cello Sonata, mvmt. III, mm. 161-169. End of section (a6) and the beginning of section (a7).

Subsections (a7) and (a8) are connected in the following manner. In the cello line, instead of connecting the two sections (a7 and a8) with glissando, Cordero blends (a7) (m. 79) with (a8) (m. 180) with a long note-utilizing integer 2 (D natural) from permutation P_2 . In the piano line, music from (a7) is finalized with integer 5 from permutation R_0 in the right hand, whereas permutation I_0 is utilized in the left hand. Subsequently, the prime row in (a8) continues in m.180, both in the cello line as well as the piano part. We can see that in m. 180, the integer 11, does not fit in the chord, because it does not follow in the order of its row, but we can consider that the integer is connected with integer 11 in m. 82.

The vigorous Subsection (a8) arrives in m. 180. It is organized by the combination of fragments from first measure of (a7) in m. 180 and by developing sequences from measures 87-88 from subsection (a4) in mm. 183-187 (see Figure 51).

The image displays a musical score for Cordero's Cello Sonata, movement III, measures 179-186. It consists of two systems of staves. The first system (mm. 179-180) features a Cello line and a Piano line. The Cello line in m. 180 has a long note, and the Piano line has a glissando. The second system (mm. 183-186) continues the music. Annotations include permutation labels: $[P_2 (7,6 \dots 2)]$, $[R_0 (11, 3, 2, 7, 1, 0, 9, 10, 4, 5)]$, $[P_0(5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 9, 11)]$, $[R_0 (11, 8, 6, 3, 2, 7, 0)]$, and $[R_{11} (10, 7, 5, 2, 1, 6, 1)]$. Dynamic markings include *f cantando* and *cresc.*

Figure 51: Cordero: Cello Sonata, mvmt. III, mm. 179-186. End of section (a7) and beginning section (a8).

After the fervent bars in mm. 182-187, Cordero elaborates the closing of the subsection from m. 188-191 by adding hemiolas in mm. 188-189 in the cello line. This is shaped by double stops with members of the permutation I_7 . In the piano, chords formed by members of the prime row in the right hand are played continuously, whereas aggressive groups of four sixteenth notes are played on each beat using the left hand. By creating even more rhythmic activity, this part is clearly the climax of the section (see Figure 52).

Figure 52: Cordero: Cello Sonata, mvmt. III, mm. 187-190.

This segment ends in m. 191 with another glissando from integer 10 to integer 10 an octave higher.

Finally the coda arrives in m. 192. It continues building the excitement that characterizes section (a8) with the prime row. This section prepares the listener for its grandiose end. The piano takes the lead by starting a descending line with members of the prime row in the right hand and members of permutation R_{11} in the left hand. This section is a fragmentation of the material presented at the beginning of the piece from mm. 192-198. We observe that in m. 194, Cordero created another puzzle with rows. In the cello line, he started with the prime row, but integer 4 is missing in the line. We see this happening in the last beat of m. 194 in the left hand of the piano line, also as member of the permutation R_0 (see Figure 53).



Figure 53: Cordero: Cello Sonata mvmt. III, mm. 191-194. (a8) ending coda.

In mm. 199, the prime row starts taking over the section in both cello and piano parts. A cello line develops the row with a motivic idea from integers 2, 3, 6, and 8. These integers are combined with two groups of nine consecutive eighth notes in the cello. In the piano, Cordero elaborates groups of two and three consecutive notes that in m. 206 finally become a single melody in the cello line (see Figure 54).

Figure 54: Cordero: Cello Sonata, mvmt. III, mm. 202-208.

In m. 210, the sonority created at the fortissimo is extended for a full three bars, while alternating with integer 2 (D natural), until the arrival of m.213. In mm. 213-214, Cordero connects two different hexachords with permutations R_0 and P_0 mirroring the row. Finally in m. 114 the piece concludes by using every single member of the prime row in the cello line and in the piano, the reverse of the prime row, R_0 in mm. 217 (see Figure 55).

210

214

[P_0 (5, 4, 10, 9, 0, 1, 7, 2, 3, 6, 8, 11)]

[R_0 (11, 8, 6, 3, 2, 7, 1, 0, 9, 10, 4, 5)]

[P_0 (2, 3, 6, 8, 11)]

Panamá
Nov. 21, 1963

Figure 55: Cordero: Cello Sonata, mvmt. III, mm. 210-214.

Soliloquio No. 6 for Cello Solo

The following section describes the structure and provides an analysis of *Soliloquio*. *No. 6. Soliloquio* is a piece that can be described as a solo sonata for cello with three complex movements. The movements are not organized in the common style of classical or romantic sonata, but they are mostly characterized by the style of song and dances from Panamanian or Latin American rhythmic patterns. These patterns reflect various moods and tempo changes. The overall structure of the piece is as follows: First movement: slow-moderato- fast – slow, Second movement: slow, and Third movement: fast.

According to Cordero's memoirs, the writing of the first movement was interrupted -and the second movement inspired- by the loss of a close friend of his, which accounts for its solemn mood. He later resumed his work on the first movement and upon its' completion of the first movement, he used the main motive from the second movement to craft the joyful mood of the third.

So I stopped writing the first movement of the piece for Ko, and wrote the second movement—Lento e tristo—just to show my sadness for losing the friend. After I finished the second movement, I went back and completed the first—and then took the motive of the sad second movement and exploited that for the last movement—with some dance character—an affirmation of life. So, that was the reason for that so sad movement in the Soliloquios número seis [1992].⁶⁵

Cordero uses three different matrixes for this piece. There is a “mother” matrix used during the entire piece –that can be referred to as Matrix I-. In the second movement Cordero uses Matrix I with the addition of a new matrix, Matrix II. In the third movement,

⁶⁵ Cordero, “Roque's Memoirs,” 158. Informal memories of Roque Cordero kindly provided by Marie Labombile.

he uses Matrix I and II plus a third matrix, Matrix III. Figure 56, Figure 57, and Figure 58 show the matrixes and rows used in each movement.

Matrix I	
$P_0 = 4, 5, 11, 2, 1, 8, 10, 9, 0, 6, 7, 3$	$I_0 = 4, 3, 9, 6, 7, 0, 10, 11, 8, 2, 1, 5$
$P_{11} = 3, 4, 10, 1, 0, 7, 9, 8, 11, 5, 6, 2$	$RI_2 = 7, 3, 4, 10, 1, 0, 2, 9, 8, 11, 5, 6$
$R_{11} = 2, 6, 5, 11, 8, 9, 7, 0, 1, 10, 4, 3$	$RI_0 = 5, 1, 2, 8, 11, 10, 0, 7, 6, 9, 3, 4$

Figure 56: Matrix and rows used in the first movement: *Adagio*.

Matrix I	Matrix II
$RI_2 = 7, 3, 4, 10, 1, 0, 2, 9, 8, 11, 5, 6$	$P_0 = 5, 1, 0, 3, 11, 8, 9, 6, 4, 2, 10, 7$
	$P_9 = 2, 10, 9, 0, 8, 5, 6, 3, 1, 11, 7, 4$
	$I_0 = 5, 9, 10, 7, 11, 2, 1, 4, 6, 8, 0, 3$

Figure 57: Matrixes and rows used in the second movement: *Largo e tristo*

Matrix I		
$P_0 = 4, 5, 11, 2, 1, 8, 10, 9, 0, 6, 7, 3$	$P_7 = 11, 0, 6, 9, 8, 3, 5, 4, 7, 1, 2, 10$	$I_8 = 0, 11, 5, 2, 3, 8, 6, 7, 4, 10, 9, 1$
$P_3 = 7, 8, 2, 5, 4, 11, 1, 0, 3, 9, 10, 6$	$R_{11} = 2, 6, 5, 11, 8, 9, 7, 0, 1, 10, 4, 3$	$RI_2 = 7, 3, 4, 10, 1, 0, 2, 9, 8, 11, 5, 6$
$P_5 = 9, 10, 4, 7, 6, 1, 3, 2, 5, 11, 0, 8$	$I_0 = 4, 3, 9, 6, 7, 0, 10, 11, 8, 2, 1, 5,$	
Matrix II		
$P_0 = 5, 1, 0, 3, 11, 8, 9, 6, 4, 2, 10, 7$	$R_2 = 9, 0, 4, 6, 8, 11, 10, 1, 5, 2, 3, 7$	
$R_0 = 7, 10, 2, 4, 6, 9, 8, 11, 3, 0, 1, 5$	$I_0 = 5, 9, 10, 7, 11, 2, 1, 4, 6, 8, 0, 3$	
Matrix III		
$P_0 = 4, 8, 7, 2, 1, 3, 11, 10, 0, 5, 9, 6$		

Figure 58: Matrixes and rows used in the third movement: *Vivace*

First Movement: Adagio - Allegretto

All movements use a row from the matrix of the prime row (4, 5, 11, 2, 1, 8, 10, 9, 0, 6, 7, 3) presented at the beginning of the piece. The first movement is organized in a rondo form. The first section begins in a very slow tempo, which we will refer to as section A. This “*Adagio*” serves as the introduction to the piece, after which the music accelerates through the use of syncopation ultimately arriving in the Andante section. Once again, the music slows down only to speed up again as it approaches the playful *Allegretto*, or C-section. This movement will conclude with the slow character of theme one. Figure 59 shows the structure of the first movement and Figure 60 highlights in color the rows used.

<i>Adagio</i>	<i>Andante</i>	<i>Adagio</i>	<i>Allegretto</i>	<i>Meno mosso</i>	<i>Allegretto</i>	<i>Adagio</i>	<i>Molto Adagio</i>
1-18	19-45	46-52	53-100	101-11	112-116	118-121	122-127
A	B	A	C	Transition	C	A	Coda

Figure 59: Structure of the first movement of the Soliloquio No 6 for Cello solo.

	I ₀	I ₁	I ₇	I ₁₀	I ₉	I ₄	I ₆	I ₅	I ₈	I ₂	I ₃	I ₁₁	
P ₀	4	5	11	2	1	8	10	9	0	6	7	3	R ₀
P ₁₁	3	4	10	1	0	7	9	8	11	5	6	2	R ₁₁
P ₅	9	10	4	7	6	1	3	2	5	11	0	8	R ₅
P ₂	6	7	1	4	3	10	0	11	2	8	9	5	R ₂
P ₃	7	8	2	5	4	11	1	0	3	9	10	6	R ₃
P ₈	0	1	7	10	9	4	6	5	8	2	11	11	R ₈
P ₆	10	11	5	8	7	2	4	3	6	0	1	9	R ₆
P ₇	11	0	6	9	8	3	5	4	7	1	2	10	R ₇
P ₄	8	9	3	6	5	0	2	1	4	10	11	7	R ₄
P ₁₀	2	3	9	0	11	6	8	7	10	4	5	1	R ₁₀
P ₉	1	2	8	11	10	5	7	6	9	3	4	0	R ₉
P ₁	5	6	0	3	2	9	11	10	1	7	8	4	R ₁
	RI ₀	RI ₁	RI ₇	RI ₁₀	RI ₉	RI ₄	RI ₆	RI ₅	RI ₈	RI ₂	RI ₃	RI ₁₁	

Figure 60: Matrix I used in Cordero: *Soliloquio No. 6* for Cello solo, first movement.

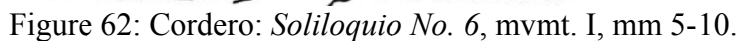
The first movement, Adagio begins with an introduction of eighteen measures where the music has a quasi-improvisatory quality. Its rhythmic gesture is created from a long single note in crescendo to a second note. After few beats rest the gesture repeats itself in accelerando and ultimately completes its statement of the row. The same motivic idea, presented in the first four bars, is developed throughout the entire introduction. The musical idea lands on a soft and quiet note, giving a feeling of culmination of a rite. Cordero introduces the prime row 4, 5, 11, 2, 1, 8, 10, 9, 0, 6, 7, 3 first, and then two permutations - R_{11} (2, 6, 5, 11, 8, 9, 7, 0, 1, 10, 4, 3) and (I_0) (4, 3, 9, 6, 7, 0, 10, 11, 8, 2, 1, 5) - without specifying a definite tempo marking. The music is organized by a succession of different measures with three, five, and eight beats per measures. Although there is no time signature, Cordero specifies a metronome marking of a quarter note = 66 (BPM). The main motivic idea in this section is presented in the first two measures, with the rhythmic value of a dotted half-note in the first measure, followed by two 32nd notes. The same pattern is repeated in the following two measures, however in the fourth measure he adds a single 32nd note, which actually is the third integer of the prime row. Figure 61 shows the diagram of the first motivic development.



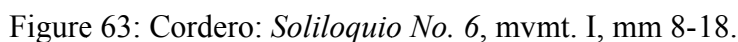
Figure 61: Cordero: *Soliloquio No. 6*, mvmt. I, mm. 1-4.

With the marking of “libero” and “(slow)” in the fifth measure, this passage slowly accelerates leading towards a tempo in m. 9. This short “libero” transitions begins with

several times (see Figure 62).⁶⁶



everything began (see Figure 63).



⁶⁶ Casal, “Panamanian Art Music for Strings:”

A seductive dancing rhythm begins the *Andante*. This section is faster in cut time with a marking of a quarter note at 80 (BPM). These initial bars are mark with pizzicato. It appears that the rhythm here is taken from the rhythmic *cinquillo* cell. The *cinquillo* cell comes from the twentieth century Cuban ballroom dance *Cuban danzón*. The *danzón* was often composed for small groups of musicians called *charanga*. Instruments for *charanga* consisted of piano, flute, violin, acoustic bass, timbales, and guiro. The rhythm consists of a *cinquillo* figure followed by four-quarter notes (see Figure 64).⁶⁷ Couples often dance to the music in close positions.⁶⁸ The same pattern is repeated in m. 21 and m. 22.

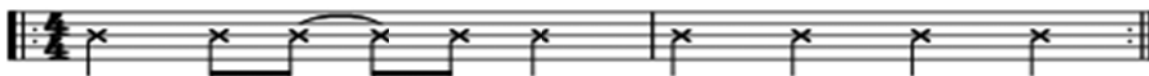


Figure 64: *Cinquillo* rhythmic cell on *danzon*.⁶⁹

From mm. 23-41, alternating 2/4 and 3/4 rhythms as well as alternating arco and pizzicato, further develop the motivic idea from mm. 19 and 20. Subsequently, the permutation I_0 and the permutation R_{11} , and RI_0 alternate as well. The syncopated *Cuban danzón* rhythmic is used twice here from mm. 19-22. Row I_0 is used here for these measures. The *cinquillo* pattern sequences and reappears in a *grazioso* character introducing new variants in the rhythm until reaching the end of this section in m. 42 (see Figure 65).

⁶⁷ William Gradante and Jan Fairley, "Danzón." Grove Music Online. Oxford Music Online. Oxford University Press, accessed March 31, 2014.
<http://www.oxfordmusiconline.com/subscriber/article/grove/music/07204>.

⁶⁸ Ibid.

⁶⁹ Oxford Music Online, "Ex.1 Cinquillo Rhythm," Grove Music Online. Oxford Music Online. Oxford University Press, accessed September 24, 2014,
<http://www.oxfordmusiconline.com/subscriber/article/img/grove/music/F010650>.

Andante, ca. 80

Cinquillo rhythmic cell

19 pizz. 3 9 6 7 0 20 4

25 7 0 10 11 0 10 11 8 2 1 10 11 8 11 11 30 2 1 5 2

31 6 5 11 7 9 7 0 1 10 4 9 6 7 0 10 11 8 2

37 1 5 2 6 2 11 8 9 1 7 8 9 7 0 1 40 6 10 3 3 4 5 11 2 1 8

mf mp cresc. mf

pizz. arco

Figure 65: Cordero: *Soliloquio* No. 6, mvmt. I, mm. 19-41

The music arrives in at m. 42 with quasi cadenza feeling with the permutation RI_0 (5, 1, 2, 8, 11, 10, 0, 7, 6, 9, 3, 4). This permutation is introduced for the first and only time in the entire piece. The passage culminates with a *rallentando* marking in m. 45, to finally arrive in m. 46 in *primo tempo* back to the *Adagio*. The music reverts to the same rhythmic and motivic material found in the beginning of the *Adagio* (see Figure 66).

42 8 2 1 8 10 9 0 6 7 3 5 1 2 8 11 10 0 7 6

46 Primo tempo, ca. 66, poco decel. 4 3 4 5 11

49

mf mp cresc. mf

pizz. arco

RI_0 [5 1 2 8 11 10 0 7 6]

P_0 [4 5 11]

Figure 66: Cordero: *Soliloquio* No. 6, mvmt. I, mm. 42-49.

Yet another quasi-improvisatory idea drives the musical gesture with an *accelerando* from m.50 to m. 52, with the permutation R_{11} . Flexibility of tempo is felt through the instruction of *accelerando* and *rallentando* until the arrival at the *Allegretto* (see Figure 67).



Figure 67: Cordero: *Soliloquio No. 6*, mvmt. I, mm.50-52

This *Allegretto* or C-section is organized with members of the permutation I_8 ; it starts with a four bars phrase which progresses. The tempo here is bumped up to 116-126 (RPM). This passage from mm. 53-64 serves as an introduction to the next section where the primary row returns (see Figure 68).



Figure 68: Cordero: *Soliloquio No. 6*, mvmt. I, mm.53-64.

In m. 65, this festive tune is presented in cut time and it carries on until m. 69, in this tempo (Figure 72). This primary melody could be related to the Panamanian *tonada* of the *tamborito* dance. The *tamborito*, a Panamanian national dance in 2/4. Its melodic distinctiveness is the contrapuntal rhythm, where the syncopated anticipation of the first

beat by a semiquaver almost always occurs at the end of a phrase.⁷⁰ A diagram of a *Tamborito Tonada* is shown in Figure 70. The similarity can be noticed in the rhythmic pattern in Figure 69, with the musical example in Figure 70.

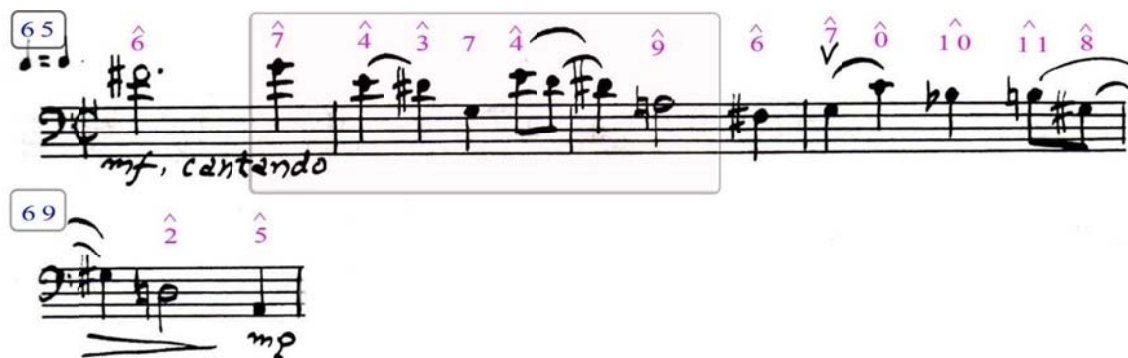


Figure 69: Cordero: *Soliloquio No. 6*, mvmt. I, mm. 65-69



Figure 70: “Y Orelé” *Tamborito tonada* transcribed by Roque Cordero⁷¹

The excitement builds in m. 70 as a transitional section with the use of a new permutation 7, 3, 4, 10, 1, 0, 2, 9, 8, 11, 5, 6 (RI₂). By adding groups of 6 triplets per beat and a molto crescendo we can hear the intensification that continues until m. 75 (see Figure 71).

⁷⁰ Gerard Béhague, et al., “Panama,” Grove Music Online. Oxford Music Online, accessed September 3, 2014 <http://www.oxfordmusiconline.com/subscriber/article/grove/music/41089>

⁷¹ “Ex.3 Arriba monteriano, tamborito tonada; transcr. R. Cordero,” *Grove Music Online*. Oxford Music Online. Oxford University Press, accessed October 5, 2014, <http://www.oxfordmusiconline.com/subscriber/article/img/grove/music/F005148>.



Figure 71: Cordero: *Soliloquio No. 6*, mvmt. I, mm. 70-75.

Presenting six triplets per beat for three triplets per beat in m. 75, Cordero prepares us to return to the *tonada*. From mm. 76 – 81, elements of the rhythmic patterns of the *clave*, are present. Specifically, they can be heard in m. 77 and m. 79 (see Figure 72). The *clave*, has the distinctive feel of the *Salsa* dance genre. It incorporates elements of Cuban and Puerto Rican dance styles with influences from jazz. The *clave* is based upon a foundation of interlocking rhythmic *ostinato*, and can be felt as either a 3+2 or 2+3 pattern⁷² (see Figure 73).



Figure 72: Cordero: *Soliloquio No. 6*, mvmt. I, mm. 76-81.



Figure 73: Clave rhythm.

⁷² Lise Waxer, "Salsa," *Grove Music Online*. Oxford Music Online. Oxford University Press, accessed September 3, 2014, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/24410>.

The *tonada* returns with the same permutation: 4, 3, 9, 6, 7, 0, 10, 11, 8, 2, 1, 5 (I_0) in m. 82 and is developed until m. 100. In this section, Cordero creates the melodic theme by grouping members of the permutation I_0 , [4,3] & [9, 6,7, 0, 10, 11, 8] (see Figure 74).

Figure 74: Cordero: *Soliloquio No. 6*, mvmt. I, mm. 82-100.

A new idea is expressed in m. 101 with the double stop technique. With the permutation I_8 and the pedal note D or integer 2, Cordero creates a new soundscape suddenly writing sustained whole and half notes suggesting ambiguous tonalities from D major to minor D, D being the pedal, in mm. 101-104, we can imagine tonal harmony as the chords change from D minor to other parsimonious chords.

Acceleration continues in the following measures. The pedal D continues until m. 109 alternating with major and minor chords. For example, in m. 105 we can hear G major chord. Figure 75, shows the alternating sonorities in mm. 105-111.

Measure	105	106	107	108	109	110	111
Sonority	G major	D7	Bb major/ b minor	G# minor	G# minor/ D major 7th	G minor 7th	G minor 7 th / Eb major

Figure 75: Parsimonious smooth voice leading from mm. 105 – 111.

Finally, in m. 111 we arrive (at least) the suggestion of Eb major. The section suddenly reverts to the *Allegretto* in m. 112 (see Figure 76). Cordero connects the previous section with ironic and sarcastic sounds, using glissando and pizzicato, within the permutation of RI₂. All this serves as transition in return to the A section.

Figure 76: Cordero: *Soliloquio No. 6*, mvmt. I, mm. 105 – 118.

A short five measures *Adagio* returns, leading the movement towards *Molto adagio* or coda, with a tempo marking of 30. This final phrase employs pitch material from permutation P₀ on a solemn and closes in a whispering harmonic Eb in pianissimo (see Figure 77).

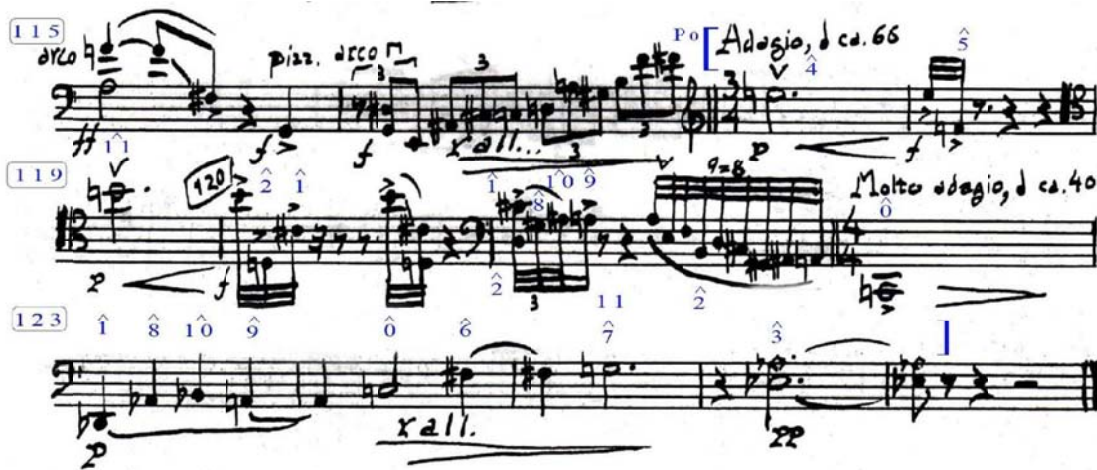


Figure 77: *Soliloquio No. 6*, mvt. I, mm. 115-127.

Second Movement: Largo e tristo

The second movement is the slow movement of the piece. The music can be described as a meditative tune, that later returns to the melancholic idea in a romantic choral of double stops. Small music ideas are built with whispering sounds created by the combination of sul-pontecello technique and tremolo notes. The music continues to a sudden repetition of dissonant chords (G, F#, E) creating the sound of someone screaming in agony. Chords that are members of the prime row of the second matrix P_0 make these sounds. Following the dissonant chords, the music returns to a mournful and dying mood. This movement is divided in three sections. The main length of each section is organized by melodic, temporal, and rhythmic patterns, rather than through chordal progressions from the diatonic scales or classical or romantic sonata forms. This analysis applies to the entire piece. Nevertheless, the overall movement is organized in a ternary form: A, B, A' form (see Figure 78).

A			B		A'		
a	B	a	bb		a'	b'	a'

Figure 78: Structure of the II movement of the *Soliloquio No. 6* for cello solo.

Rather than saturating every single possibility in the application of a row, a new matrix is added, from the Matrix II only the prime row P0 (5,1, 0, 3, 11, 8, 9, 6, 4, 2, 1), the permutation I10 (5, 9, 10, 7, 11, 2, 1, 4, 6, 8, 0, 3), and P9 (2, 10, 9, 0, 8, 5, 6, 3, 1, 11, 7, 4) are used (Figure 79). From the Matrix I, the permutation RI10 (7, 3, 4, 10, 1, 0, 2, 9, 8, 11, 5, 6) is the only one used (Figure 79). It could be assumed that Cordero mixed the two matrixes in one movement to be innovative and add a new musical line with a new row.

Figure 79 shows the table of row in color used in Matrix I, and Figure 80 the rows in colors used in Matrix II.

	I ₀	I ₁	I ₇	I ₁₀	I ₉	I ₄	I ₆	I ₅	I ₈	I ₂	I ₃	I ₁₁	
P ₀	4	5	11	2	1	8	10	9	0	6	7	3	R ₀
P ₁₁	3	4	10	1	0	7	9	8	11	5	6	2	R ₁₁
P ₅	9	10	4	7	6	1	3	2	5	11	0	8	R ₅
P ₂	6	7	1	4	3	10	0	11	2	8	9	5	R ₂
P ₃	7	8	2	5	4	11	1	0	3	9	10	6	R ₃
P ₈	0	1	7	10	9	4	6	5	8	2	11	11	R ₈
P ₆	10	11	5	8	7	2	4	3	6	0	1	9	R ₆
P ₇	11	0	6	9	8	3	5	4	7	1	2	10	R ₇
P ₄	8	9	3	6	5	0	2	1	4	10	11	7	R ₄
P ₁₀	2	3	9	0	11	6	8	7	10	4	5	1	R ₁₀
P ₉	1	2	8	11	10	5	7	6	9	3	4	0	R ₉
P ₁	5	6	0	3	2	9	11	10	1	7	8	4	R ₁
	RI ₀	RI ₁	RI ₇	RI ₁₀	RI ₉	RI ₄	RI ₆	RI ₅	RI ₈	RI ₂	RI ₃	RI ₁₁	

Figure 79: Matrix I used in *Soliloquio No. 6* for Cello solo, second movement.

	I ₀	I ₈	I ₇	I ₁₀	I ₆	I ₃	I ₄	I ₁	I ₁₁	I ₉	I ₅	I ₂	
P ₀	5	1	0	3	11	8	9	6	4	2	10	7	R ₀
P ₄	9	5	4	7	3	0	1	10	8	6	2	11	R ₄
P ₅	10	6	5	8	4	1	2	11	9	7	3	0	R ₅
P ₂	7	3	2	5	1	10	11	8	6	4	0	9	R ₂
P ₆	11	7	6	9	5	2	3	0	10	8	4	1	R ₆
P ₉	2	10	9	0	8	5	6	3	1	11	7	4	R ₉
P ₈	1	9	8	11	7	4	5	2	0	10	6	3	R ₈
P ₁₁	4	0	11	2	10	7	8	5	3	1	9	6	R ₁₁
P ₁	6	2	1	4	0	9	10	7	5	2	11	8	R ₁
P ₃	8	4	3	6	2	11	0	9	7	5	1	10	R ₃
P ₇	0	8	7	10	6	3	4	1	11	9	5	2	R ₇
P ₁₀	3	11	10	1	9	6	7	4	2	0	8	5	R ₁₀
	RI ₀	RI ₈	RI ₇	RI ₁₀	RI ₆	RI ₃	RI ₄	RI ₁	RI ₁₁	RI ₉	RI ₅	RI ₂	

Figure 80: Matrix II used in *Soliloquio No. 6* for Cello solo, second movement.

The second movement “*Largo e tristo*,” is presented by P₀ (5, 1, 0, 3, 11, 8, 9, 6, 4, 2, 10, 7) from Matrix II. Following a four bar motivic idea, the melody moves down from the integer 5 (F), a major third to the integer 1 (Db). The same motivic idea is repeated from the third integer of the P₀: 3 (Eb), which moves down a major third to the integer 11 (Cb). The ensuing music responds with an ascending both in register and dynamics, which lands on the integer 7, which in this case can be heard as a leading tone to integer 5. Integer 5 is the first integer of the permutation I₀ in m. 8 (See Figure 81).



Figure 81: Cordero: *Soliloquio No. 6*, mvmt. II, mm. 1 – 7.

Cordero writes a four bar descending melody to form a response to the theme presented at the beginning of the movement in m. 8 with the permutation I_0 . In m. 12, he continues transition with this melodic idea for another three bars. The music continues with the row P_0 , dividing the movement with the following form of: a –b –a form (see Figure 82).



Figure 82: Cordero: *Soliloquio No. 6*, mvmt. II, mm. 8 – 18 .

The complete section ends in m. 24 with the integer 7, the last integer of the P_0 from the Matrix II. Cordero uses each row to identify the different musical ideas among the movement (see Figure 83).

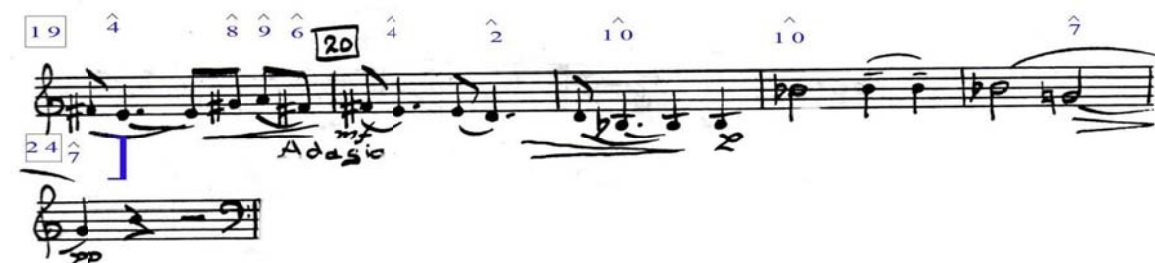


Figure 83: Cordero: *Soliloquio No. 6*, mvmt. II, mm. 19-24.

The B section of the movement is marked with the metronome notation of a quarter note =66 (BMP) as well as a request for *molto vibrato*. Permutation RI_2 (7, 3, 4, 10, 1, 0, 2,

9, 8, 11, 5, 6), a row member of the Matrix I, is enlisted for this section. The permutation RI10 is a music quotation from mm. 72-75, and mm. 112 from the first movement. The faster pace, pizzicato, frequency of pauses creates the texture of this transitional passage. The music is reflective as if pondering a particular thought. In m. 36 a rapid crescendo prepares the listener for the climax of the second movement. The music then returns to the main theme from the beginning of the piece (see Figure 84).



Figure 84: Cordero: *Soliloquio No. 6*, mvmt. II, mm. 25-40.

Cordero's organization of this section is unique. This choral sounding passage is a combination of two permutations, thus giving a sense of tonal direction. We can hear in the connection by parsimonious voice leading. Parsimonious is a term given by Richard Cohn, referring to the

neo-Riemannian transformations, which are governed by parsimonious voice leading rather than by archetypal fundamental-bass progressions... Cohn defines smooth voice leading as motions from one chord to another in which only one voices moves by semitone, while all of the others hold common tones... [or] ... motions that skip one chord in the system, one common tone is maintained while the other tow voices move by semitone; and in motions that skip to chords, all three voices move by semitone.⁷³

⁷³ Waxer, "Salsa,"

Here, a voice leading between two chords is described as parsimonious if no intervals are larger than a whole step. Similarly, any close relationship between any two chords within the tonal harmony system is therefore parsimonious. Although the methodology in this section is based on the twelve-tone technique and not in the new-Riemannian theory, the idea of parsimonious voice leading is useful to consider when explaining this passage. Also, Cohn's work centers on triadic voice leading, and the chords being described are not all triadic. Beginning in m. 41, the main theme reappears but with accompaniment. The musical idea is presented with the permutation P_9 (2, 10, 9, 0, 8, 5, 6, 3, 1, 11, 8) from Matrix II. This is the first and only time this permutation is used in this arrangement. The theme is accompanied by the prime row P_0 that had previously presented the main theme in the beginning of the movement from mm. 1 - 4. The tonal center here is D and we can hear the harmony of D minor in the first two beats, moving a half step downward to Db minor.

In m. 42 the bass moves downward from D-flat to C from beat 4. Bb is on top and it connects the musical line by suspending the B-flat to A, thus arriving at A minor sonority in the first two beats. In the fourth beat, A remains but as a member of B-flat major with D in the bass. D from the bass on beat three from m. 42, moves stepwise to the next chord in m. 43 to E-flat, where E-flat is the first inversion of C minor, therefore B-flat major from the previous beat can be heard as the C minor 7th chord. In m. 43, the chord C and E-flat drop a major third in parallel motion to A-flat minor, but there is no connection between the two chords. A continuation from the previous beat in m. 42 where A in beat four moves a half step down to A-flat in beat two from m. 43 can be noticed. Continuing the musical line, the chord in beat two, A-flat minor, becoming F minor in beat three. F natural in the

third beat moves a half step upward to F-sharp creating an augmented six chord without resolution, to end on A-flat on the bass.

In the fourth beat, Ab in the bass moves up another half step to A natural, creating a F# minor chord. In m. 44, we hear a D#7 and F# minor. A voice exchange occurs with the F# minor chord from the previous chord moving from the top voice to the base in m. 44 and the voice exchange is repeated in m. 45. D#7 is repeated in measure 45, and it moves to C# minor in beats 3 and 4, sharing the C# as the common chord. The chord moves to D major- seventh with C# as common chord in m. 46 and the same chord is sustained until m. 47, where the music moves to G minor on beat four. Members of a whole tone scale can be found in a descending scale initiating with Bb, Ab, F#, E, and D. A voice exchange occurs from g minor in m. 48, where G on the top of the chord moves to E minor in m. 49 with G in the bass. G major 7 follows on beat 3 and 4. G continues as the common chord from m. 48 – 50, where we hear a C major chord with a Db as an escape tone in m. 49. The section culminates in a pianissimo on Eb major. After the development of the choral section, the passage ends in m. 50 with members of the prime row (P₀) (see Figure 85).

Figure 85: Cordero: *Soliloquio No. 6*, mvmt. II, mm. 41-50.

The b' section begins in the fifth beat of m. 50. This section is a conversation of two motivic ideas that creates a phrase from mm. 50-60. The conversation is created with members of the prime row of Matrix II with a group of five sixteenth notes followed by an eighth note in the next beat. The other group is of five eighth notes separated by eighth rest with a staccato bow stroke. The permutation I_0 takes over the passage with the same motivic ideas repeated. However, the second time instead of using five sixteenth notes, four are added totaling nine. The responding motives are composed in artificial harmonic sounds. The addition of the gestures from the B section, for example m.31-32 and m. 57-58, helps to add a moment of irony to the piece (see Figure 86).

Figure 86: Cordero: *Soliloquio No. 6*, mvt. II, mm. 50-64.

The closing theme follows with *sul ponticello* that takes over in m. 64, to launch the music into a suspenseful sound. This excitement builds with a crescendo and tremolo bow. This sensation continues in m. 67 with the adding of double stops, and arrives in the agonic and screaming dissonant chords from m. 68 to m. 72. Short burlesque eighth and two

sixteenth notes returns in m. 73 creating a brief mood of calmness, only to return to two beat of one group of five sixteenth notes and nine thirty second notes, to land in another final delirious shout. A short burlesque motive returns with a disappearing sound (see Figure 87).



Figure 87: Cordero: *Soliloquio No. 6*, mvmt. II, mm. 65-75.

The second movement ends in a similar way to the first movement, but this time the sound fades like a thought (see Figure 88).

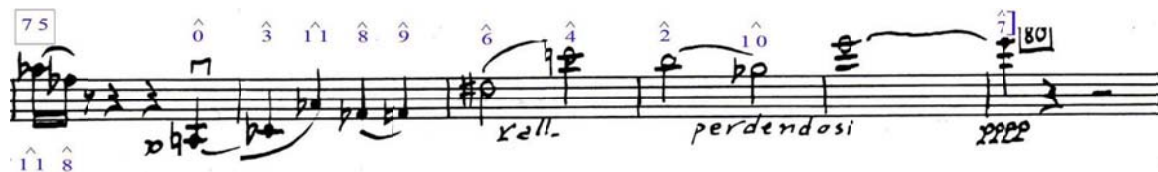


Figure 88: Cordero: *Soliloquio No. 6*, Movement II, mm.75-79.

Third Movement: Allegro vigoroso

Allegro giocoso (playful or humorous)⁷⁴ is the funniest and final movement of the piece. The movement is largely organized in a classical rondo form: A B A B A. The blend of extended technique such as “col legno” to be played behind the bridge, while tapping the instrument with specific rhythmic patterns. All this action’s with your fingers gives the

⁷⁴ "Giocoso," The Oxford Companion to Music. Oxford Music Online. Oxford University Press, Accessed September 30, 2014, <http://www.oxfordmusiconline.com/subscriber/article/opr/t114/e2885>

piece a playful character. The movement is full of syncopated rhythms that could have been taken from Panamanian folklore or other African or Latin-American origin. Cordero manipulates the twelve-tone technique by using a number of members of specific rows instead of using a full row. He also combines members from a single row with members from a different rows. The organization of the third movement is described in Figure 89.

<i>Allegro giocoso</i>	<i>Andante cantabile</i>	<i>Allegro</i>	<i>Andante</i>	<i>Tempo primo</i>
m.1-70	m.71-91	m.92 -136	m.137-167	m.168-208
A	B	A	B	A

Figure 89: Structure of the third movement of the Soliloquio No. 6 for cello solo.

A diagram of the rows in color used on each matrix is shown in Figure 90, Figure 91, and Figure 92.

	I ₀	I ₁	I ₇	I ₁₀	I ₉	I ₄	I ₆	I ₅	I ₈	I ₂	I ₃	I ₁₁	
P ₀	4	5	11	2	1	8	10	9	0	6	7	3	R ₀
P ₁₁	3	4	10	1	0	7	9	8	11	5	6	2	R ₁₁
P ₅	9	10	4	7	6	1	3	2	5	11	0	8	R ₅
P ₂	6	7	1	4	3	10	0	11	2	8	9	5	R ₂
P ₃	7	8	2	5	4	11	1	0	3	9	10	6	R ₃
P ₈	0	1	7	10	9	4	6	5	8	2	11	11	R ₈
P ₆	10	11	5	8	7	2	4	3	6	0	1	9	R ₆
P ₇	11	0	6	9	8	3	5	4	7	1	2	10	R ₇
P ₄	8	9	3	6	5	0	2	1	4	10	11	7	R ₄
P ₁₀	2	3	9	0	11	6	8	7	10	4	5	1	R ₁₀
P ₉	1	2	8	11	10	5	7	6	9	3	4	0	R ₉
P ₁	5	6	0	3	2	9	11	10	1	7	8	4	R ₁
	RI ₀	RI ₁	RI ₇	RI ₁₀	RI ₉	RI ₄	RI ₆	RI ₅	RI ₈	RI ₂	RI ₃	RI ₁₁	

Figure 90: Matrix 1 used in Cordero: *Soliloquio No. 6* for Cello solo, third movement

	I ₀	I ₈	I ₇	I ₁₀	I ₆	I ₃	I ₄	I ₁	I ₁₁	I ₉	I ₅	I ₂	
P ₀	5	1	0	3	11	8	9	6	4	2	10	7	R ₀
P ₄	9	5	4	7	3	0	1	10	8	6	2	11	R ₄
P ₅	10	6	5	8	4	1	2	11	9	7	3	0	R ₅
P ₂	7	3	2	5	1	10	11	8	6	4	0	9	R ₂
P ₆	11	7	6	9	5	2	3	0	10	8	4	1	R ₆
P ₉	2	10	9	0	8	5	6	3	1	11	7	4	R ₉
P ₈	1	9	8	11	7	4	5	2	0	10	6	3	R ₈
P ₁₁	4	0	11	2	10	7	8	5	3	1	9	6	R ₁₁
P ₁	6	2	1	4	0	9	10	7	5	2	11	8	R ₁
P ₃	8	4	3	6	2	11	0	9	7	5	1	10	R ₃
P ₇	0	8	7	10	6	3	4	1	11	9	5	2	R ₇
P ₁₀	3	11	10	1	9	6	7	4	2	0	8	5	R ₁₀
	RI ₀	RI ₈	RI ₇	RI ₁₀	RI ₆	RI ₃	RI ₄	RI ₁	RI ₁₁	RI ₉	RI ₅	RI ₂	

Figure 91: Matrix II used in Cordero: *Soliloquio No. 6* for Cello solo, third movement.

	I ₀	I ₄	I ₃	I ₁₀	I ₉	I ₁₁	I ₇	I ₆	I ₈	I ₁	I ₅	I ₂	
P ₀	4	8	7	2	1	3	11	10	0	5	9	6	R ₀
P ₈	0	4	3	10	9	11	7	6	8	1	5	2	R ₈
P ₉	1	5	4	11	10	0	8	7	9	2	6	3	R ₉
P ₂	6	10	9	4	3	5	1	0	2	7	11	8	R ₂
P ₃	7	11	10	5	4	6	2	1	3	8	0	9	R ₃
P ₁	5	9	8	3	2	4	0	11	1	6	10	7	R ₁
P ₅	9	1	0	7	6	8	4	3	5	10	2	11	R ₅
P ₆	10	2	1	8	7	9	5	4	6	11	3	0	R ₆
P ₄	8	0	11	6	5	7	3	2	4	9	1	10	R ₄
P ₁₁	3	7	6	1	0	2	10	9	11	4	8	5	R ₁₁
P ₇	11	3	2	9	8	10	6	5	7	0	4	1	R ₇
P ₁₀	2	6	5	0	11	1	9	8	10	3	7	4	R ₁₀
	RI ₀	RI ₄	RI ₃	RI ₁₀	RI ₉	RI ₁₁	RI ₇	RI ₆	RI ₈	RI ₁	RI ₅	RI ₂	

Figure 92: Matrix III used in Cordero: *Soliloquio No. 6* for Cello solo, third movement.

The beginning of this movement recalls the traditional Panamanian folk dance melodic rhythm called *mejorana* begins the piece. Figure 93 shows an example of a traditional *mejorana* rhythm.

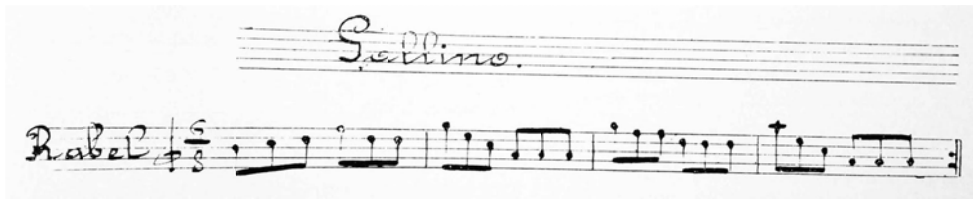


Figure 93: Ravel manuscript, part of a *mejorana* tune⁷⁵.

The main theme in the third movement is presented from mm. 1-15 with two parallel phrases that are initiated by the prime row of the first matrix P_0 (4, 5, 11, 2, 1, 8, 10, 9, 0, 6, 7, 3). The rhythm in 6/8, with metronome marking of a dotted quarter note = 132 (BMP). Therefore, it is faster than the previous movements. The antecedent melodic and rhythmic idea last from mm. 1-6 and the consequent phrase is from mm. 7-15. The permutations R_{11} , I_8 , and RI_{10} continue and end this section on its last integer (see Figure 94).

Figure 94: Cordero: *Soliloquio No. 6*, mvmt. III, mm. 1-15.

The main melodic phrase is presented twice with two basic ideas in mm. 16-17 and mm. 20-22. A contrasting phrase follows from mm. 26-35. The *mejorana* rhythm takes over the music, here lengthening this part of the phrase. What comes next is transitional

⁷⁵ Garay, *Tradiciones y Cantares*, 191.

material cadencing in measure 40. The four bar transition is varied in staccato and paring of triplets rhythms in playful ways (see Figure 95).

Figure 95: Cordero: *Soliloquio No. 6*, mvmt. III, mm. 16-40.

The rhythm is built in 6/8 and is formed by the grouping of an eighth note, two sixteenth notes and four eighth notes in one measure (see Figure 96). The passage ends in m. 35 with a series of *Punto* rhythms, another traditional dance from Panama in which a rhythmic cell is shaped by an eighth note followed by a quarter note. In mm. 36-39 there is passage that connects the period “a” with period “a’ ” in mm. 40-56. The *mejorana* usually makes this rhythm. The *mejorana* is a small, short-necked five-string guitar of Panama. It is

normally made of cedar, with gut or nylon strings tuned either $e'-b-a-a'-d'$ (by 2) or $e'-b-g-g'-d'$ (by 6).⁷⁶



Figure 96: *Mejorana* rhythm.⁷⁷

Period a, and a' begins similarly with a close correspondence in a subtle contrasting material. The antecedent in a' begins in mm. 40-46 and the consequent is from mm. 47-51. There is an expansion of the contrasting material starting in m. 47. The section ends with a fragmentation, using material from the closing material of the introduction in mm. 13-15. The connecting passage from mm. 54-56 shares the same permutation RI_2 (see Figure 97). The music here is arrested by a fermata on the bar line following the climax at the end of m. 60.

The music restarts its journey in m. 57 using the *mejorana* rhythm. In mm. 57-70, a' returns with two parallel phrases. In a', the antecedent is from mm. 57-61 and the

⁷⁶ John M. Schechter, "Mejoranera," Grove Music Online. Oxford Music Online. Oxford University Press, accessed November 28, 2014, <http://www.oxfordmusiconline.com/subscriber/article/grove/music/18295>

⁷⁷ Garay, *tradiciones y Cantares*, 191.

consequent follows with fragments taken from the b section (mm. 33-35) and in mm. (62-67). Measures (68 – 70) are an expansion of the consequent phrase and this section continues preparing us for the next new section. Now, a new permutation I_8 (0, 11, 5, 2, 3, 8, 6, 7, 4, 10, 9, 1) is introduced to the form of the piece and is used to close the a' section (see Figure 98).

Handwritten musical score for Cordero's *Soliloquio No. 6*, measures 40-56. The score is written on five staves. Measure 40 is marked with a red box and contains a treble clef staff with a melodic line. Measure 41 is marked with a blue box and contains a bass clef staff with a melodic line. Measure 45 is marked with a blue box and contains a bass clef staff with a melodic line. Measure 49 is marked with a blue box and contains a bass clef staff with a melodic line. Measure 50 is marked with a blue box and contains a bass clef staff with a melodic line. Measure 53 is marked with a blue box and contains a bass clef staff with a melodic line. The score includes various musical notations such as notes, rests, and dynamic markings. Handwritten annotations in red, blue, and purple ink are present throughout the score, including permutation labels R_{11} , I_0 , and RI_2 , and measure numbers 40, 41, 45, 49, 50, and 53. The score is written in a handwritten style with some corrections and annotations.

Figure 97: Cordero: *Soliloquio No. 6*, mvmt. III, mm. 40-56.

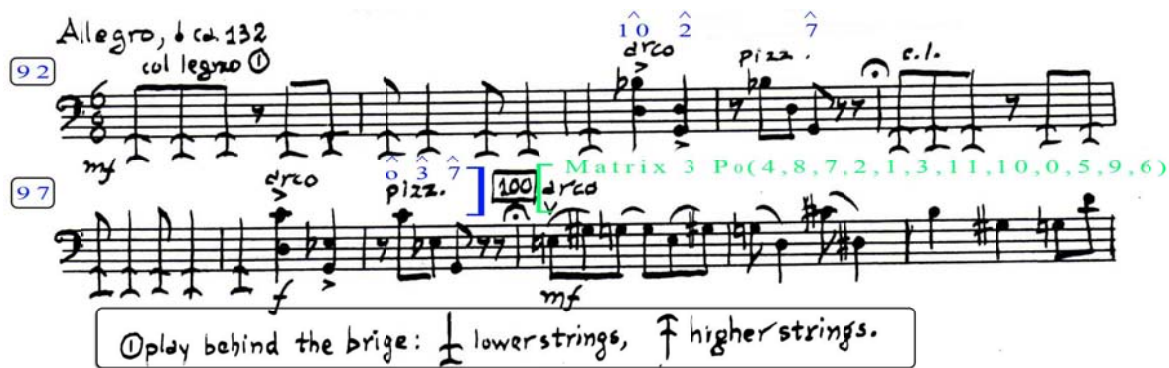


Figure 98: Cordero: *Soliloquio No. 6*, mvmt. III, mm. 57-70.

The B section is what I would refer to as the *Tamborito* section. The tempo marking is of a quarter note = 84 (MBP). This entire section gives a different texture and feeling to the composition, as if a fast song were to be played in a slower tempo. It has two contrasting phrases where its rhythmic cell is taken from a *Tamborito* cell: the repetition of the sixteenth note followed by two eighth notes, and the sixteenth and two eighth are both repeated in their entirety. Figure 99 shows an example of a Panamanian *tamborito* song. A similarity in the rhythm in mm. 1-2 from Figure 98 with mm. 71-72 from Figure 100 can be noticed.



Figure 99: Tamborito song⁷⁸.

⁷⁸ Garay, *Tradiciones y Cantares*, 153.

The first phrase is constructed with the P_0 from Matrix II and covers the entire dance from mm. 71-77. The contrasting phrase in mm. 78-85 is organized with the new permutation R_2 from Matrix II.

Cordero orders the first phrase with the prime row. To express continuity in his musical idea, in m. 79 he overlaps the prime row with the last integer 7 in the next row even though all the members of the prime row were used in the first beat of m. 78. There is an expansion of the contrasting material from mm. 85-91, which serves as a transition to the next section. This part ends with a repetition of the *tamborito* cell, using members of the P_0 of Matrix II (see Figure 100).

71 *Andante cantabile, ca. 84*
mp, con grazia
D.S. al Fine
Matrix 2 P_0 (5, 1, 0, 3, 11, 8, 9, 6, 4, 2, 10, 7)

76 Matrix 2 R_2 [9 0 4 6 8 11]

82

87 Matrix 2 P_0 (5, 1, 0, 3, 11, 8, 9, 6, 4, 2, 10, 7)

Figure 100: Cordero: *Soliloquio No. 6*, mvmt. III, mm. 71- 91.

The (A) section returns with a percussive character using members of the P_0 in Matrix II. Once again Cordero asks for *col legno* below the bridge. This creates a festive color and texture (Figure 101). Section A has two equal lengthier subsections due to their

rhythmically identical organization. The first phrase is introduced in mm. 92-99, and the contrasting phrase from mm. 100 – 110. Here a new Matrix is introduced (P_0 : 4, 8, 7, 2, 1, 3, 11, 10, 0, 5, 9, 6) in mm. 100-108. The parallel period it is repeated in mm. 111-118 and also in mm. 119-122.

Handwritten musical score for Cordero's *Soliloquio No. 6*, mvt. III, mm. 92-102. The score is in 2/8 time, marked "Alegro, ca. 132" and "col legno". It features two staves. The first staff (treble clef) has measures 92-99, with dynamics "mf" and "f". The second staff (bass clef) has measures 97-100, with dynamics "f" and "mf". A green box highlights measure 100, labeled "Matrix 3 Po(4,8,7,2,1,3,11,10,0,5,9,6)". Above measure 100, there are handwritten notes: "10 2 7" with hats, "arco", "pizz.", and "c.l.". Below the staves, a box contains the instruction: "play behind the bridge: lower strings, higher strings."

Figure 101: Cordero: *Soliloquio No. 6*, mvmt. III, mm. 92-102.

After the addition of the new permutation in m. 100, and then in measure 124 fourteen measures of two rhythmic phrases continue the transitional section. It redirects the music to B section, the slower *tamborito* dance. Here again the cello is use as a percussive instrument.

A unique feature here is introduced through a combination of two different permutations. This creates a new musical line. For example in mm. 108-110, members of permutation R_0 from Matrix 2: 7, 10, 2, 4, 6, 9, 0 are combined with members of the permutation I_0 in mm. 120-131.

Handwritten musical score for a piece titled "Matrix 3 Po(4,8,7,2,1,3,11,10,0,5,9,6)". The score is written on five staves. The first staff starts with a treble clef and a key signature of one sharp (F#). The second staff has a treble clef and a key signature of one flat (Bb). The third staff has a treble clef and a key signature of one flat (Bb). The fourth staff has a treble clef and a key signature of one flat (Bb). The fifth staff has a treble clef and a key signature of one flat (Bb). The score includes various musical notations such as notes, rests, and dynamic markings like "mf" and "pizz.". There are also handwritten annotations in red and green ink, including a red arrow pointing to a measure in the fourth staff and a green box around a measure in the second staff. The score is numbered with measures 108, 114, 120, 126, and 134.

The B section returns in mm 137-167 to the *tamborito* section and with identical tempo marking of quarter note = 84 (MBP). The first phrase in this *tamborito*, is constructed with members of I_0 and P_0 from the Matrix II. The second phrase is from mm. 145-167 and is elaborated by two basic rhythmic ideas (see Figure 103). The rhythmic idea is expanded by a sixteenth note followed by two eighth notes F#, E and D. The eighth note is followed by a quarter further extending the phrase. The music slows with the markings of *poco rallentando*, *diminuendo* and *pianissimo*. It is obvious the end is near (see Figure

103). The last integer (7) of the prime row in m. 167 helps link the B section to the recapitulation or final dance of the movement.

Figure 103: Cordero: *Soliloquio No. 6*, mvmt. III, mm. 137-167.

The recapitulation of the final dance is extrapolated from permutation P_2 from Matrix II and R_{11} from Matrix I. We have reach the highest point of the movement. By repeating the integer (7) two octave higher he creates even more interest in this integer. The essence of this section continues in the same manner until the transition passage arrives in m. 185. The first part of the phrase is from mm. 173-174 and the contrasting second part is from mm. 175-184 (see Figure 104).

0
Tempo primo (d. ca. 132) Matrix 2 P₂ (7,3,2,5,1,10,11,8,6,4,0,9)

168

170

173

177

180

181

Matrix 1 RI₁ (2,6,5,11,8,9,7,0,1,10,4,3)

mf

mp

cresc.

mf

Figure 104: Cordero: *Soliloquio No. 6*, mvmt. III, mm. 168-184.

Fragments of Cordero's introduction serve as a transitional passage to the closing section. In the first transitional phrase, Cordero again introduces a hexachord from the permutation P₅ in mm. 185-186 and another hexachord from the permutation P₃ in mm. 187-188, both from Matrix I. The contrasting phrase (mm. 189-192) of the transition returns with the prime row of Matrix I until closing in m. 193. The climax here (mm. 193-201) is heard with the repetition of double stops and a 3-2 "salsa clave" rhythm from mm. 195-198. Here a descending syncopated rhythmic line leads to m. 201. Unexpectedly, in m. 199, Cordero alters the use of the entire row by omitting the integer 5 of the RI₂ and inserting the integer 0. He extends this idea with the combination of two different hexachords, and members of two different permutations. Astutely, he links two permutations P₇ (11, 0, 6, 9, 8, 3) and I₈ (3, 8, 7, 6, 4, 10, 9, 1) by using integer 3 as the common note between the two hexachords in mm. 199-200.

The final melody follows in m. 202 with the transition of permutation I_8 to the prime row of Matrix I. He is therefore finishing this piece with the identical row found in the beginning of the entire work. Even though he used the same tone row as in the beginning of the work, character all together is different here in this giocoso movement (see Figure 105).

Handwritten musical score for Cordero's *Soliloquio No. 6*, movement III, measures 185-205. The score is written on a grand staff with treble and bass clefs. It includes various musical notations such as notes, rests, and dynamic markings (mf, f, mp, cresc., p, mf sub.). Above the staff, several permutations of the tone row are listed in different colors: P_5 [9 10 4 7 6 1] in brown, P_3 [7 8 2 5 4 11] in yellow, P_0 [4 5 11 2 1 8] in purple, RI_2 [7 3 4 10 1 0] in red, and I_8 [3 8 6 7 4 10 9] in red. A circled measure at measure 197 contains a permutation [11 0 6] in green. The score ends with a double bar line and the date "July 1 - Nov. 30, 1992" and "Normal, IL - USA".

Figure 105: Cordero: *Soliloquio No. 6*, mvmt. III, mm. 185-205.

Conclusion

This thesis presented a formal analysis of Cordero's *Soliloquio No. 6* and *Sonata for Cello and Piano* and the historical perception of several aspects of his compositional style. This formal analysis complemented the performance of both "Sonata" and "Soliloquio" in a recital at Louisiana State University in the Spring of 2014. Theoretically, as well as performance-wise, I found both pieces enormously interesting and challenging. Perhaps the *Sonata for Cello and Piano* is slightly more technically demanding than the *Soliloquio No. 6*. The *Soliloquio* he added technical difficulty of performing complex Latin America rhythm. By thoroughly studying and analyzing this music, I was able to observe Cordero's creative genius and complex intellect. His skills at blending different rhythmic patterns of Panamanian and Latin American rhythms with creative use of dodecaphonic technique are unique. His innovative use of three different matrixes in one piece distinguishes him from other composers of his time. He fuses these native Latin American elements with serial technique in a way no one else has done before. Understanding the organization of his music was crucial for the performance of these pieces.

Furthermore, in the process of studying these pieces, I was able to learn more about the boundless possibilities of combining twelve-tone technique with any type of rhythm and I was inspired by the richness of the Panamanian folk rhythms and tunes. My objective for this research was to help others interested in Cordero's work to better understand his music, particularly these cello works. Personally, I found great joy and excitement in learning both pieces. I felt honored to have this responsibility and I hope to perform more of his music and to continue to disseminate his valuable output as Panama most prolific and important composer to date.

Bibliography

- Ashley, Tim. "Krenek, Ernst." *The Oxford Companion to Music*. *Oxford Music Online*. Oxford University Press. Accessed November 26, 2014.
<http://www.oxfordmusiconline.com/subscriber/article/opr/t114/e3775>
- Béhague, Gerard. "The Hispanic World, 1918-45." In *Modern Times from World War I to the Present*, edited by Robert Morgan. Englewood Cliffs, New Jersey: Prentice Hall Inc., 1993.
- Casal, Luis. "Panamanian Art Music for Strings: Works for Violin/Piano and Viola/Piano by Roque Cordero, Eduardo Charpentier, and Fermin Castañedas." DMA diss. University of Oklahoma, 2006.
- Chase, Gilbert. *Introducción a la Música Americana Contemporánea*. Argentina: Editorial Nova, 1958.
- Cordero, Roque. "Nacionalismo versus Dodecafonismo". *Revista Muscial Chilena*, 13(67): 28-38, 1956.
- Cordero, Roque. "Remembranzas de Roque Cordero". *Revista Loteria*, 368 (1987):15-25.
- Cordero, Roque. "El serialismo" 1–2. In Labonville, Marie. "Roque Cordero (1917-2008) in the United States." Paper presented at the Latin American Music Center's Fiftieth Anniversary Conference "Cultural Counterpoints: Examining the Musical Interactions between the U.S. and Latin America, Indiana University, Bloomington, 2011.
- Cruz de Gracia, Efraim. "Roque Cordero, Compositor Panameño, Visto a Través de Algunas de sus Obras (Roque Cordero, Panamanian Composer, seen through some of his works)." MM thesis, □University of Panama, 2002.
- Garay, Narciso. *Tradiciones y Cantares de Panama*. Panama: Litho Impresora Panamá S.A., 1982.
- Gerard Béhague, et al., "Panama." *Grove Music Online*. *Oxford Music Online*. Accessed September 3, 2014
<http://www.oxfordmusiconline.com/subscriber/article/grove/music/41089>
- The Oxford Companion to Music. "Giocoso." *The Oxford Companion to Music*. *Oxford Music Online*. Oxford University Press. Accessed September 30, 2014.
<http://www.oxfordmusiconline.com/subscriber/article/opr/t114/e2885>
- Gradante, William and Jan Fairley. "Danzón." *Grove Music Online*. *Oxford Music Online*. Oxford University Press. Accessed March 31, 2014.

- Labonville, Marie. "Roque Cordero (1917-2008) in the United States." Paper presented at the Latin American Music Center's Fiftieth Anniversary Conference "Cultural Counterpoints: Examining the Musical Interactions between the U.S. and Latin America, Indiana University, Bloomington, 2011.
- Rushton, Julian. "Hemiola." *Grove Music Online. Oxford Music Online*. Oxford University Press. Accessed November 20, 2014,
<http://www.oxfordmusiconline.com/subscriber/article/grove/music/12768>.
- Schechter, John M. "Mejoranera" *Grove Music Online. Oxford Music Online*. Oxford University Press. Accessed November 28, 2014.
<http://www.oxfordmusiconline.com/subscriber/article/grove/music/18295>
- The Oxford Companion to Music. "Ex.1 Cinquillo Rhythm." *Grove Music Online. Oxford Music Online*. Oxford University Press. Accessed September 24, 2014.
<http://www.oxfordmusiconline.com/subscriber/article/img/grove/music/F010650>.
- The Oxford Companion to Music. "Ex.3 Arriba monteriano, tamborito tonada; transcr. R. Cordero." *Grove Music Online. Oxford Music Online*. Oxford University Press. Accessed October 5, 2014.
<http://www.oxfordmusiconline.com/subscriber/article/img/grove/music/F005148>.
- Waxer, Lise. "Salsa." *Grove Music Online. Oxford Music Online*. Oxford University Press. Accessed September 3, 2014.
<http://www.oxfordmusiconline.com/subscriber/article/grove/music/24410>.
- Webster, James. "Sonata form." *Grove Music Online. Oxford Music Online*. Oxford University Press. Accessed November 22, 2014
<http://www.oxfordmusiconline.com/subscriber/article/grove/music/26197>.

Annex A: Dissertations, thesis, and essays on Roque Cordero

- Benjamin, Jerry. *Sonatina ritmica by Roqué Cordero: A paper analyzing the composition*, 9 pp, Indiana University, 1963. □
- Brawand, John Edward. □ *The Violin Works of Roué Cordero*. □ DMA Dissertation, 125 pp, □ The University of Texas Austin, 1985.
- Byrd, Donald . Roué Cordero: violin concerto. Indiana University, 1968.
- Casal, Luis. Panamanian Art Music for Strings: Works for Violin/Piano and Violea/Piano by Roqué Cordero, Eduardo Charpentier, and Fermin Castañedas. DMA Thesis, 125 pp, University of Oklahoma, 2006.
- Chase, Gilbert. Composed by Cordero, *Inter-American Music Bulletin*, 10, 1-4, Spring 1958.
- Chase, Gilbert. Creative Trends in Latin American Music II, *Tempo*, 50, 25- 28, Winter, 1959.
- Cruz de Gracia, Efrain. *Roqué Cordero, Compositor Panameño, Visto a Través de Algunas de sus Obras (Roqué Cordero, Panamanian Composer, seen through some of his works)*. M.M. Thesis, 168 pp, □ University of Panama, 2002.
- De Dobay, Thomas Raymond. □ *A stylistic analysis of selected short works by Roué Cordero*. M.M. Thesis, 89 pp, □ Indiana University, 1971.
- Deatsman, Gerald. An Analysis of the Sonatina ritmica: for piano by Roué Cordero, □ Submitted as term paper, 7 pp, 1963.
- Filós Gooch, Prischilla. □ *The piano in the works of Roque Cordero* □ D.M. Thesis, 87 pp, □ Indiana University, 1974.
- Greaves, Earl S. □ *Structural elements in selected works of Roque Cordero*. M.M. Thesis, 98 pp, □ Southern Illinois University, 1977.
- Guevara, Moises. *Panamanian folk influences in Roque Cordero's music*. □ M.M. Thesis, 63 pp, □ University of Oklahoma, 2001.
- Labonville, Marie. *Roque Cordero (1917-2008) in the United States*. Paper presented at the Latin American Music Center's Fiftieth Anniversary Conference "Cultural Counterpoints: Examining the Musical Interactions between the U.S. and Latin America," Indiana University, Bloomington, 2011. Available from

IUScholarWorks (<https://scholarworks.iu.edu/dspace/handle/2022/15513>);
accessed [February 15, 2014].

Maxine Ennett, Dorothy. □ *Analysis and comparison of selected piano sonatas by three contemporary black composers: George Walker, Howard Swanson, and Roque Cordero*. □ Ph.D. Dissertation, 142 pp, New York University, 1973.

Paputsas, Christine. *Unity and contrast in two works of Roque Cordero*. □ M.M. Thesis, 93 pp, □ Indiana University, 1979.

Ray Jakey, Lauren. *An analysis of six Latin American works for violin and piano composed since 1945*. □ D.M. Dissertation Thesis, 176 pp, □ Indiana University, 1971.

Reid Kerr, Hortense. *The chamber music for piano and strings of three African-American composers: The Chevalier de Saint-Georges, William Grant Still, and Roque Cordero*. □ D.M.A. Dissertation, 355 pp, The Catholic University of America, 1996.

Sider, Ronald R. Roque Cordero: The Composer and His Style seen in Three Representative.

Appendix I: Letter of Permission

25 November, 2014

Dimitri Cordero
3900 Wales Dr.
Dayton, OH 45405

Mr. Isaac Miguel Casal
715 Leeward Dr.
Baton Rouge, Louisiana, 70803

Dear Isaac,

This letter shall serve as authorization by the Cordero family for your use of any excerpts from the score of Roque Cordero's Soliloquio No.6 for Cello, in support of your doctoral dissertation or for other similar uses, as you may see fit.

With our best wishes,


D.J. Cordero

Appendix II: Letter of Permission

ISAAC MIGUEL CASAL

715 Leeward Dr., Baton Rouge, Louisiana, 70808 - Phone: (646) 660-5044; email:
info@isaaccasal.com

November 20, 2014.
Erin Rogers
250 West 57th St., Suite 820
New York, NY 10107 USA

Dear Erin Rogers:

I am completing a doctoral dissertation at Louisiana State University entitled "ROQUE CORDERO *SOLILOQUI NO. 6* AND *SONATA FOR CELLO AND PIANO*: STRUCTURE AND ANALYSIS." I would like your permission to reprint in my dissertation excerpts from the following:

The excerpts to be reproduced are:

Roque Cordero Sonata for Cello and Piano

I movement.

mm. 1 – 9.
mm. 15 – 25.
mm. 46-49.
mm. 50-55.
mm. 74-82.
mm. 83-94.
mm. 103-104.
mm. 106 – 108.
mm. 116-118.
mm. 131-133
mm. 164-169
mm. 146-149.
mm. 164-169.
mm. 170-173
mm. 174-177.
mm. 182-185

II movement

mm. 1-9.
mm. 14-20.
mm. 31-38.
mm. 54-56.
mm. 60-63.
mm. 71-85.

III movement

mm. 1-10
mm. 25-32.
mm. 33-37.
mm. 47-51.
mm. 52-59.
mm. 60-63.
mm. 80 – 83.
mm. 84-91.
mm. 100-103.
mm. 103-107.
mm. 116-123.
mm. 124- 126.
mm. 124-129.
mm. 135-143.
mm. 144-148.
mm. 149-152.
mm. 161-169.
mm. 179-186.
mm. 187-190.
mm. 191-194.
mm. 210-214.

Figure of indications to apply extended
technique in the piano on page 15

The requested permission extends to any future revisions and editions of my Dissertation. These rights will in no way restrict republication of the material in any other form by you or by others authorized by you. Your signing of this letter will also confirm that Peer International owns the copyright to the above-described material.

If these arrangements meet with your approval, please sign this letter where indicated below and return it to me in the enclosed return envelope. Thank you very much.

Sincerely,
Isaac Miguel Casal Rodriguez

PERMISSION GRANTED FOR THE USE REQUESTED ABOVE:

A handwritten signature in black ink, appearing to read 'Isaac Miguel Casal', is written over a horizontal line. The signature is stylized with large loops and a long horizontal stroke extending to the right.

Isaac Miguel Casal
Leeward Dr. Baton Rouge LA, 70808

Date: November 20, 14

Appendix III: Roque Cordero Artistic Advisor of ASM Festival



May 25 2007 - June 1 2007
25 de Mayo 2007 - 1ro de Junio 2007

SPONSORS/PATROCINADORES:
INAC, USA Embassy, Familia de Saint-Malo,  AES, Baylor University

BOARD OF DIRECTORS/JUNTA DIRECTIVA:
Roque Cordero, *Artistic Advisor/Consejero Artístico*
Miami String Quartet & Ameroet String Quartet,
Artistic Advisory Council/Consejo de Asesores Artísticos
Isaac Miguel Casal, *Artistic Director/Director Artístico*
Elrain Castro, Nancy Lazko, & Luis Casal
Education Council/Consejo Educativo

HONORARY BOARD OF DIRECTORS/JUNTA DIRECTIVA HONORARIA:
Elena Viró, Saint-Malo
Hilda Orbeo-Brillembourg
Jorge Lardenza Beaulieu
Terence Ford



Alfredo de Saint Malo

Asociación Nacional de Concertos (ANC), Funding Institutions/Instituciones Fundadoras

						
MISHA DADIĆ	DUSTY HIGGINS	VINCENT DE VRIES	JEFFREY POWERS	LACEY BUX	VICTOR SOTO	GRACIELA NULES
						
DORIS DELONCHI	GARY HARKIE	NOEL MARTIN	CUARTETO CORDERO	HELEN ANN SHANLEY	VIVACE	ORQUESTA SINFÓNICA JUVENIL, PANAMÁ
						
ORQUESTA SINFÓNICA NACIONAL	MATTHEW MORRIS	TUDOR GORBIE	RICHARD SHANLEY	CORO POLIFÓNICO DE PANAMÁ	LUIS CASAL	ISAAC CASAL

www.asmfestivalpanama.com email: info@asmfestivalpanama.com

Appendix IV: Recital Program



College of Music & Dramatic Arts

School of Music



GRADUATE RECITAL

Isaac Casal, *cello*

Liudmila Georgievskaya, *piano*

ROQUE CORDERO
(1917-2008)

Suite No. 6, BWV 1012

Adagio – Allegretto

Largo e tristo

Allegro vigoroso

INTERMISSION

ROQUE CORDERO
(1917-2008)

Sonata for Cello and Piano

Allegro molto appassionato

Adagio

Vivace

*This recital is given in partial fulfillment of the requirements of the Doctor of Musical Arts in Performance.
Isaac Casal is from the Studio of Dennis Parker.*



Wednesday, April 23, 2014 | 5:30 p.m. | Recital Hall

Appendix V: ASM Festival Homage to Roque Cordero



The poster for the ASM Festival Homage to Roque Cordero features a vibrant, artistic design. At the top, the festival's logo is displayed, consisting of a stylized musical note and the text "ASM Festival". Below this, the text "El Festival de Música" and "Alfredo De Saint-Malo 2010" is written, followed by "Homenaje al gran Compositor Panameño Roque Cordero". The central illustration depicts a man in a suit playing a violin, with musical notes and a large, stylized sun in the background. A large, stylized portrait of Roque Cordero is visible on the left side of the poster. The bottom left section lists the dates "DEL 26 DE MAYO AL 6 DE JUNIO del 2010" and the locations "LUGAR DEL FESTIVAL:", including Teatro Nacional de Panamá, Teatro Aníbal Villaláz, Auditorio del Museo Antropológico Reina Torres de Araúz, Auditorio Ascanio Arosemena, Plaza Herrera, Cinta Costera, Iglesia Santa María (Dorado), Iglesia San Antonio de Padua, Jardín San Antonio, and Iglesia San Judas Tadeo (Jardín Olímpico). The bottom right section lists the "PATROCINADOR" as the "GOBIERNO DE PANAMÁ" and "MINISTERIO DE CULTURA Y DEPORTES".

ASM Festival

El Festival de Música
Alfredo De Saint-Malo 2010
Homenaje al gran Compositor Panameño
Roque Cordero

DEL 26 DE MAYO
AL 6 DE JUNIO del 2010

LUGAR DEL FESTIVAL:

- Teatro Nacional de Panamá
- Teatro Aníbal Villaláz
- Auditorio del Museo Antropológico Reina Torres de Araúz
- Auditorio Ascanio Arosemena
- Plaza Herrera
- Cinta Costera
- Iglesia Santa María (Dorado)
- Iglesia San Antonio de Padua
- Jardín San Antonio
- Iglesia San Judas Tadeo (Jardín Olímpico)

PATROCINADOR

GOBIERNO DE PANAMÁ
MINISTERIO DE CULTURA Y DEPORTES

Vita

Panamanian cellist Isaac Casal has appeared in numerous solo recitals, chamber music concerts, and as soloist throughout Africa, Europe and the Americas. An experienced orchestra player, Isaac served as principal cellist of the Youth Symphony of Panama and was one of the youngest cellists to join the cello section of the National Symphony of Panama. In 2003 he became the first Panamanian to join the Youth Orchestra of the Americas (YOA) international tours performing alongside renowned conductors such as Carlos Miguel Prieto, Isaac Karabtschvsky, Valery Gergiev, Benjamin Zander, Gustavo Dudamel, and Plácido Domingo. Isaac served as cello instructor for the Mountain View Community College from 2007 to 2011.

Isaac began his cello studies at the Escuela Juvenil de Música de Panama at the age of 7. From the age of nine, he participated in music camps organized by the Concert Association of Panama, and in 1998 was granted a scholarship to attend the Daniel Heifetz International Institute in Annapolis, Maryland. In 2000 he moved to the United States after being awarded a scholarship to study at the Southwest Minnesota State University in Marshall, MN. Since then his major teachers have included Karen Melik-Stefanov, Keith Robinson from the Miami String Quartet, Javier Arias from the Amernet String Quartet, Gary Hardy, and Andres Diaz. He has degrees from Florida International University, Baylor University, and Southern Methodist University, where he earned the prestigious Artist Certificate as a student of Andres Diaz in May 2010.

Isaac Casal began his doctoral studies at Louisiana State University in 2011, and earning his DMA in May 2015 under the tutelage of Dennis Parker.