

UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

AN ANALYSIS OF

JOHN ADAMS' *GRAND PIANOLA MUSIC*

A DOCUMENT

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

Degree of

DOCTOR OF MUSICAL ARTS

By

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Norman, Oklahoma

2010

AN ANALYSIS OF
JOHN ADAMS' *GRAND PIANOLA MUSIC*

A DOCUMENT APPROVED FOR THE
SCHOOL OF MUSIC

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ACKNOWLEDGEMENTS

My document committee consists of Dr. William K. Wakefield, Dr. Roland Barrett, Dr. Michael Raiber, Dr. Paula Conlon, and Dr. Teresa DeBacker, and I thank each of them for their careful reading and great assistance in the execution of this document. I feel very fortunate to have had the members who served on this committee, and hold them each in high regard. Special thanks are especially due to Dr. Wakefield, chair of my committee; he tirelessly helped me clarify ideas, find new ways to experience the piece, and express my thoughts more cogently. Without his unremitting support, this document would not exist.

To my parents, Ron and Mary Ann Manna, I owe any success I have ever achieved to you both. The never-ending support you have afforded me is why I have accomplished what I have. I love you both and thank you.

To my in-laws, Harry and Cheryl Craig, I sincerely appreciate the endless love and support you have given to me for the last fifteen years. You have witnessed my growth as much as my own parents and have played an equal role in my development. I love you both.

My siblings and their families: Brenda Frysinger (sister), Curtis Lee Frysinger (brother-in-law), Timothy Frysinger (nephew), Carrie Frysinger (niece); Carl Manna

(brother), Amy Manna (sister-in-law), Natalie Manna (niece); Barbara Rogers (sister), Aaron Rogers (brother-in-law); Faith Slinkosky (niece) and Hope Slinkosky (niece) have all been tremendously supportive of me in my endeavor to pursue my doctorate. For all of your endless support, thank you. I love you all.

Specifically to my twin sister Barbara and her husband Aaron, I thank you for spending hours of your personal time assisting me with data input for the charts presented in this document. I could not have accomplished the project without your experience and expertise with the computer program used to complete this task. Thank you for your countless hours spent helping me.

I hold a tremendous amount of respect and love for my late grandfather, Albert Manna, and my grandmother, Cecelia Manna. I know that without their own pursuit of trying to "make it" in the music business, I would not have had the experiences that I did growing up with them as my musical role models. As a trumpeter and vocalist in the Big Band era, they assisted in helping me gain perspective and respect for many genres of music. For the impact on my life and all you have done for me, I thank you and I love you.

Many heartfelt thanks are due to friends who have

supported me both professionally and personally. Mike Sammons, Justin Stolarik, Ray Ridenour, Chip and Mary Birkner, John Pasquale and Jessica Hanes, David and Genevieve Craig, Wes Despain, Angela Heck, Chris and Serena Heffner, Jay Jacobs, Brian and Alicia Britt, Jeff and Carrie Jahnke, Fred and Elisabeth Alonzi, Glen Buecker, Lena Cuglietta, and Troy and Michelle Bennefield. Without each of your support and friendship through the years, I would not be where I am today. Thank you all for providing me with moments of humor, a shoulder to cry on, or an ear to listen. I am a much better person for knowing each of you.

To my teachers and mentors, Kelly Dorsey, Dr. David Waybright, Dr. Kenneth Broadway, Dr. Russell Robinson, Dr. Timothy Brophy, Dr. William Wakefield, Dr. Roland Barrett, Dr. Michael Raiber, Dr. Paula Conlon, and Dr. Carol Anne Kelley, thank you for inspiring me to become a teacher and person of your character and fortitude. The dedication and service that you have provided to countless lives throughout your careers is insurmountable and heartwarming. As a student of yours, please know how grateful I am to you for sharing with me your talent, dedication, and hard work. Because of each of you, I aspire to gain the mastery of pedagogical skills that each

of you possess.

To publisher G. Schirmer, Inc. and Associated Music Publishers, Inc., I appreciate being allowed to cite music examples from the score in my document. Without the ability to provide examples, the music would not be served appropriately. Thank you for the use of this great piece.

To Mervin Tay, a phenomenally talented student at The University of Oklahoma, thank you for transcribing the many music examples used in the document. Your time and efforts are invaluable and can never be repaid. Thank you.

To my husband, Tom, all of this is nothing without you. You have always been my rock and provided me with a life of love, excitement, and respect. You have supported my work in countless ways, mundane and profound. I am indebted to you for your unwavering faith in me and the gentle care you always treat me with. From my heart and soul, I love you. Thank you.

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ABSTRACT

Grand Pianola Music, composed in 1982 by John Adams, was written for pairs of winds, extended percussion, three female vocalists, and two pianos. Due to critic and audience disapproval, by way of booing after its 1983 east-coast premiere at Avery Fisher Hall in New York City, the work receded into the shadows of the composer's output. After reflecting on the work for more than ten years, Adams determined that *Grand Pianola Music* is representative of his true musical-self and was worthy of performance. Adams conducted and recorded the work with the London Sinfonietta in 1993, finally converting many cynics that existed ten years earlier.

This document includes biographical data and a formal analysis informed by dynamic and textural growth and decay. Dynamic and texture charts for each movement, and a dynamic chart of the entire work, provide a concise yet detailed picture of the high and low architectural points. The texture chart is also a valuable organization tool for managing personnel during rehearsals. While other compositional elements, such as tonality, rhythm, and timbre contribute to form, the

formal architecture in this study is presented from the perspective of dynamics and texture.

CHAPTER 1

INTRODUCTION

"Now I see it's the most thorough piece I've ever written about who I am musically."¹

Grand Pianola Music, written by American composer John Adams in 1982, is a post-minimal work written in two parts. The first part combines two movements, *Part IA* and *Part IB*, joined without pause. The finale, "*On the Dominant Divide*", was Adams' way of experimenting "in applying (my) minimalist techniques to the barest of all possible chord progressions, I-V-I."² Adams unknowingly composed a work that, more than twenty years after its inception, would still be used against him by modern day critics who claim his work to be "exemplary of the evils of Postmodernism."³

From the beginning, *Grand Pianola Music* has had a controversial existence among both audiences and critics. After the 1983 New York premiere of the thirty-minute work at Avery Fisher Hall, audience members

¹K. Robert Schwarz, *Minimalists* (London: Phaidon Press Limited, 1996), 183.

²John Adams' Personal Website, "Grand Pianola Music," <http://www.earbox.com/W-grandpianola.html> (accessed July 28, 2009).

³Ibid.

"booed" at the composer as he was taking his bow. Consequently, Adams became so uncertain about the piece's value that he nearly destroyed it.⁴ Controversy grew when the journal associated with Pierre Boulez's research institute in Paris (IRCAM - *Institut de Recherche et Coordination Acoustique/Musique*) compared the composer to "McDonald's" and "Disney" and claimed Adams' work was an example of more American "consumerism."⁵ John Adams would spend the next several years apologizing to his friends and critics, saying "I've got to take that piece down behind the barn and shoot it" just to appease them.⁶ However, Adams' true feelings about the composition eventually emerged.

How could I say to the disapproving critics of the piece that in the end I loved *Grand Pianola Music* and am proud of its originality and inspiration? It is my truant child, the one that antagonizes those listeners overburdened with good taste. When I look back on it, I am struck not by its outrageousness (which in fact is not outrageous enough), but rather by the fact I'd managed to find musical invention in such anecdotal musical material. There is an openness about it that, for all its satire

⁴John Adams, *Hallelujah Junction: Composing an American Life* (New York: Farrar, Straus and Giroux, 2008), 118.

⁵Ibid.

⁶John Adams' Personal Website, "Grand Pianola Music," <http://www.earbox.com/W-grandpianola.html> (accessed July 28, 2009).

and nose-thumbing, makes me feel that it rests comfortably in the American vein.⁷

John Adams' current thoughts about the work, as expressed on his website, exhibits his sincere emotions:

In truth I had very much enjoyed composing the piece, doing so in a kind of trance of automatic recall, where almost any and every artifact from my musical subconscious was allowed to float to the surface and encouraged to bloom.⁸

As one can see from the composer's reflective comments, he no longer sees the need to apologize for the work, even stating that he "is impressed by its boldness."⁹ These reflections assist in understanding why Adams feels *Grand Pianola Music* represents his musical-self.

Grand Pianola Music is inspired by, among other components, a dream. The dream, partially influenced by his time at the San Francisco Conservatory, commenced with the composer driving on Interstate 5 in San Francisco, California while being approached by two black stretch limousines. As they passed him, they morphed into two "twenty, maybe thirty feet long"

⁷John Adams, *Hallelujah Junction: Composing an American Life* (New York: Farrar, Straus and Giroux, 2008), 118.

⁸John Adams' Personal Website, "Grand Pianola Music," <http://www.earbox.com/W-grandpianola.html> (accessed July 28, 2009).

⁹Ibid.

Steinway pianos.¹⁰ Roaring down the road at 90 miles per hour, the pianos produced B-flat and E-flat major arpeggios. John Adams states:

I was reminded of walking down the hallways of the San Francisco Conservatory of Music, where I used to teach, hearing the sonic blur of twenty or more pianos playing Chopin, the Emperor Concerto, Hanon, Rachmaninoff, the Maple Leaf Rag, and much more.¹¹

In addition to the dream and the Conservatory's influence, the sounds he experienced during his younger years are also discernable in the composition:

Dueling pianos, cooing sirens, Valhalla brass, thwacking bass drums, gospel triads, and a Niagara of cascading flat keys all learned to cohabit as I wrote the piece. . . . The piece could only have been conceived by someone who had grown up surrounded by the detritus of mid-twentieth century recorded music.¹²

The strongest unifying compositional feature that Adams pulled from his memory is the distinct effect where a pair of instruments of one timbre performs a sixteenth or eighth note apart from each other, creating an oscillation or quick echo. Adams claims the idea came from the tape delay effects, where "a sound can be

¹⁰Ibid.

¹¹Ibid.

¹²John Adams' Personal Website, "Grand Pianola Music," <http://www.earbox.com/W-grandpianola.html> (accessed July 28, 2009).

repeated electronically at a fraction of a second."¹³ The shimmering effect occurs at times in the winds, voices, and pianos. Upon hearing a recording or live performance of the work, one can speculate that the continuous oscillating or "puttering"¹⁴ that is often present is symbolic of the limousines passing over seams in the road.

Initial performances and recordings of professional ensembles exist. In 1984, a year after the New York premiere, an LP Record was released on EMI/Angel Records (DS-37345). Ransom Wilson conducted the Solisti New York Orchestra with pianists Alan Feinberg and Ursula Oppens and sopranos Pamela Wood Ambush, Jane Bryden, and Kimball Wheeler. The album, titled John Adams: Grand Pianola Music, Steve Reich: Eight Lines and Vermont Counterpoint, was rereleased in 1990, 2002 and 2005 on compact disc. In 1994, Adams conducted and recorded the work with the London Sinfonietta, pianists John Alley and Shelagh Sutherland, and members of the London Voices, the choral group led by Terry Edwards affiliated with the London Sinfonietta. The album, titled Chamber

¹³Ibid.

¹⁴John Adams, *Grand Pianola Music* (Milwaukee: Associated Music Publishers, Inc., 1994), Program Note.

Symphony/Grand Pianola Music was released by Nonesuch records and available in either cassette tape or compact disc (Elektra 79219). Stephen Mosko conducted a recording of the work in 1995 with the Netherlands Wind Ensemble. Pianists Ellen Corver and Sepp Grothenhuis and sopranos Kym Amps, Lindsay Wagstaff, and Ruth Holton assisted with this recording. Produced by Chandos, the album is titled Grand Pianola Music/Are You Experienced and is available in compact disc (CHAN 9363). The most recent published recording is a remastered compact disc containing the 2005 recording by Ransom Wilson. The album is titled Adams: Grand Pianola Music and is available from EMI Classics (06627).

While initial performances and recordings of *Grand Pianola Music* occurred with professional ensembles, in the last few years the piece has also been programmed and recorded by university ensembles. A notable university wind band recording includes Columbus State University's wind symphony with Robert Rumbelow, conductor, and their recording of *On the Dominant Divide* in 2004. Additionally, Northwestern University's Symphonic Wind Ensemble performed the work on Friday, February 18, 2005 with Mallory Thompson conducting and

Ursula Oppens and Sylvia Wang performing on piano. In the 2008 spring semester, The University of Texas hosted Adams as a composer-in-residence. During his residency the University of Texas Wind Ensemble, under conductor Jerry Junkin, performed *Grand Pianola Music* on April 30. Additionally, the University of Texas Wind Ensemble performed the work at the biennial national conference of the College Band Directors National Association held in March of 2009, in Austin, Texas.

The wind band community has generated an interest in the music of John Adams over a period of time. For the wind band genre, two of his pieces were re-orchestrated from the orchestral scores; *Short Ride in a Fast Machine* (1986/1994) by Lawrence Odom and *Lollapalooza* (1995/2006) by James Spinazzola. Both works have received multiple performances by university wind ensembles.

Over the course of his career, John Adams has written six stage works, including his popular historic opera *Nixon in China* (1985-87) and the more recent *Doctor Atomic* (2004-05), twenty orchestral compositions, eight chamber works, four choral works, four piano works, two film scores, five works for ensembles of

varying instrumentation, and five tape or electronic compositions.

NEED FOR THE STUDY

A conductor faces challenges managing a post-minimal score the length of *Grand Pianola Music*. Subtle gestures in the score require close examination and analysis to aid conductors in making informed musical decisions for performance. While there are numerous accountings of John Adams' life and musical style in books and journals focusing on minimal and post-minimal composers, there are few analyses of his works. Furthermore, a published analysis of *Grand Pianola Music* does not exist.

The composer's reflective attitude on the importance of the work further strengthens the need to examine *Grand Pianola Music* at a deeper level. Considering the twenty-eight year perspective since its premiere, Adams claims it as a "landmark" composition.¹⁵

¹⁵John Adams' Personal Website, "Biography," <http://www.earbox.com/biography.html> (accessed July 28, 2009).

PURPOSE

This document presents an analysis of the form as influenced by dynamics and texture for use by conductors to advance their knowledge of the work's compositional craft. Charts containing formal sections, tonal regions, and dynamic and textural changes provide visual evidence of the work's organization. Additionally, the document's introduction contains composer reflections of *Grand Pianola Music* that may foster increased understanding of the composition.

LIMITATIONS OF THE STUDY

Because John Adams is a contemporary American composer, born in 1947, biographical material is readily available. Therefore, this document contains only a brief review of John Adams and his musical output. Additionally, the document does not include personal interviews from Adams. The document analyzes the composition from an objective point of view, taking into account existing published analytical comments by the composer, while providing conductors a starting point from which to launch further study. Finally, the document does not contain a measure-by-measure analysis

of the entire work, but rather focuses on large formal elements, tonal regions, dynamics, and texture. The document particularly focuses on how dynamics and texture impact the architectural design.

RELATED LITERATURE

A published analysis does not yet exist for *Grand Pianola Music*. However, several dissertations address other compositions by John Adams and provide a perspective for analysis of his works. In 1992, James Ball completed his dissertation, *A conductor's guide to selected contemporary American orchestral compositions*.¹⁶ His document focuses on broad compositional aspects of Adams' *Harmonielehre* (1984-85), in addition to sixteen other works by different composers.

Rebecca Louis Burkhardt's dissertation, titled *The Development of Style in the Music of John Adams from 1978 to 1989*,¹⁷ is important to this document because it spans the time in which Adams composed *Grand Pianola*

¹⁶James Ball, "A conductor's guide to selected contemporary American orchestral compositions" (diss., University of Missouri-Kansas City, 1992), 144.

¹⁷Rebecca Louis Burkhardt, "The Development of Style in the Music of John Adams from 1978 to 1989" (diss., University of Texas at Austin, 1993), 251.

Music. However, the document refrains from any analysis pertinent to this document's topic.

Timothy Johnson's dissertation, *Harmony in the music of John Adams: From "Phrygian Gates" to "Nixon in China"* reveals significant harmonic aspects in the music of John Adams.¹⁸ Although his document does not contain specific information regarding *Grand Pianola Music*, the period of compositional activity encompassed in the study includes the time frame of *Grand Pianola Music's* inception.

Rhythmic organization in works by Elliott Carter, George Crumb, and John Adams: Rhythmic frameworks, timepoints, periodicity, and alignment by Rebecca Jemian, written in 2001, analyzes temporal issues and matters of beat and rhythm within works by minimal and post-minimal composers.¹⁹ The topic of her dissertation is important to this document in evaluating similar temporal components throughout *Grand Pianola Music*.

¹⁸Timothy Johnson, "Harmony in the music of John Adams: From "Phrygian Gates" to "Nixon in China"" (diss., State University of New York at Buffalo, 1991), 345.

¹⁹Rebecca Jemian, "Rhythmic organization in works by Elliott Carter, George Crumb, and John Adams: Rhythmic frameworks, timepoints, periodicity, and alignment" (diss., Indiana University, 2001), 265.

The reemergence of tonality in contemporary music as shown in the works of David Del Tredici, Joseph Schwantner, and John Adams written by James Chute in 1991 reveals how the three contemporary composers utilize tonality.²⁰ The author uses Adams' *Shaker Loops*, *Harmonium*, and *The Chairman Dances* to illustrate Adams' use of tonality in each of these works.

Due to the composer's popularity, there have been many interviews with Adams, some of which are audio recordings on his website, while others are published in journals and books. A survey of *The Music Index*, *JSTOR*, *Oxford Music Online*, *Grove Music Encyclopedia*, *ProQuest*, and *WorldCat Dissertations* produced mostly biographical information.

PROCEDURES AND ORGANIZATION

The document is organized into five chapters and contains appendices and a bibliography. Chapter 1 provides an introduction to the composer, the work, and the events leading to *Grand Pianola Music's* inception.

²⁰James Chute, "The reemergence of tonality in contemporary music as shown in the works of David Del Tredici, Joseph Schwantner, and John Adams" (diss., University of Cincinnati, 1991), 163.

Chapter 2 provides a brief biography of Adams' life. Chapter 3 contains an introduction and overview of the score preface data. Chapter 4 presents a formal analysis, focusing on the formal structure and tonal regions of the movements within the work. Charts and music examples depicting the construction of the work as defined by dynamics and textural density are also presented in this chapter. Chapter 5 provides a summary and conclusions, as well as suggestions for further study.

CHAPTER 2

BIOGRAPHICAL SKETCH

CHILDHOOD

John Coolidge Adams was born February 15, 1947 in Worcester, Massachusetts. Throughout his childhood he moved several times between Vermont, New Hampshire and Massachusetts, being influenced by the culture of each new area. It was during this time in his childhood that his father, a clarinetist, taught him how to play the clarinet. As he developed beyond his father's abilities, he later studied with Felix Viscuglia, clarinetist with the Boston Symphony Orchestra. While young, he began performing in marching bands and community ensembles with his father. Adams has acknowledged his experiences in these groups and the impact they had on his writing. He especially notes the exuberant sonorities and strong rhythms of marching band music as having a deep effect on his musical personality.²¹

EDUCATION

Adams began composing at the age of ten, having his music first performed when he was 13. After graduating

²¹James Ball, "A conductor's guide to selected contemporary American orchestral compositions" (diss., University of Missouri-Kansas City, 1992), 10.

from Concord High School in Concord, New Hampshire, he was accepted at Harvard University in 1965 where he studied composition under David Del Tredici, Leon Kirchner, Earl Kim, and Roger Sessions.

During his time at Harvard, he conducted the university's Bach Society Orchestra. He also had the rare opportunity to serve not only as the reserve clarinetist for the Boston Symphony Orchestra, but also the Opera Company of Boston. He completed two degrees from Harvard University (Bachelor of Arts, 1969; Master of Arts in Composition, 1971) and was the first student allowed to submit a musical composition for an undergraduate thesis at Harvard.

PROFESSIONAL LIFE

Adams the Teacher

Adams taught at the San Francisco Conservatory of Music for ten years, from 1972 until 1982. He worked in the electronic music studio at the San Francisco Conservatory of Music. At that time, he was focused on electronic composition, having built his own analogue synthesizer. He later became the composer-in-residence of the San Francisco Symphony from 1982 to 1985. During this time he created the "New and Unusual Music" series,

using the orchestra to perform some of his works.

Adams the Composer

It was during his tenure at the Conservatory and with the San Francisco Symphony Orchestra that Adams composed some of his more important works. Selected works composed during this period include *Wavemaker* (1977), *Phrygian Gates for solo piano* (1977), *Shaker Loops* (1978), *Common Tones in Simple Time* (1979), *Harmonium* (1980–81), *Grand Pianola Music* (1982), *Light Over Water* (1983), *Harmonielehre* (1984–85), *The Chairman Dances* (1985), and *Nixon in China* (1985–87). The works *Harmonium*, *Grand Pianola Music*, and *Harmonielehre* were all premiered by the San Francisco Symphony Orchestra.

STYLE

Commonly mistaken for a minimalist, Adams employs minimal techniques primarily as a point of departure. Minimalism offered a solution to his creative dilemma, but he noticed fairly early that:

Minimalism as a governing aesthetic could and would rapidly exhaust itself. Like Cubism in painting, it was a radically new idea, but its reductive

worldview would soon leave its practitioners caught in an expressive cul-de-sac.²²

Adams was born a generation after Steve Reich and Philip Glass, and his writing is more developmental and directional, containing climaxes and other elements of Romanticism.²³ He was attracted to the undulating and diatonic sound of this style, which provided an underlying palette on top of which Adams could express what he wanted in his compositions. Although some of his pieces sound similar to those written by minimalist composers, Adams actually rejects the idea of mechanistic procedure-based or process music. What he took from minimalism was tonality and modality, and the rhythmic energy from repetition. Comparing Shaker Loops to minimalist composer Terry Riley's composition style and piece *In C*, Adams states,

Rather than set up small engines of motivic materials and let them run free in a kind of random play of counterpoint, I used the fabric of continually repeating cells to forge large architectonic shapes, creating a web of activity that, even within the course of a single movement,

²²John Adams, *Hallelujah Junction: Composing an American Life* (New York: Farrar, Straus and Giroux, 2008), 93.

²³Robert K. Schwarz, *Minimalists: 20th Century Composers* (London: Phaidon Press Limited, 1996), 177.

was more detailed, more varied, and knew both light and dark, serenity and turbulence.²⁴

The Darmstadt school of serial composition was *en vogue* on the east coast during Adams' time at Harvard. As a result, many of his ideas for compositions are a reaction to the philosophy of serialism and its portrayal of "the composer as scientist."²⁵ He compared his classes to a "mausoleum where we would sit and count tone-rows in Webern."²⁶ Upon graduation from Harvard, he was frustrated with the restrictiveness of serialism.

Adams experienced a musical rebirth after reading a graduation present from his parents, John Cage's book *Silence*, which Adams claimed, "dropped into my psyche like a time bomb."²⁷ In his book, Cage presented a new concept framed in fundamental questions about what music was, suggesting that all sounds are potential sources of music. The paradigm shift offered Adams an emancipating alternative to the constraints of serialism. He decided

²⁴John Adams' Personal Website, "Harmonium," <http://www.earbox.com/harmonium.html> (accessed July 28, 2009).

²⁵Thomas May, ed. *The John Adams Reader: Essential Writings on an American Composer* (Pompton Plains, NJ: Amadeus Press, 2006), 8.

²⁶Michael Broyles, *Mavericks and other traditions in American Music* (Yale University Press, 2004), 169-170.

²⁷Schwartz, *Minimalists*, 175.

to leave New England and move to San Francisco, where his first steps into the composer he is known to be, would begin.

In his 2008 autobiography, *Hallelujah Junction: Composing an American Life*, Adams describes a second revelation in 1976, while driving in Northern California, playing a cassette recording of the first act of Wagner's *Götterdämmerung*. He said out loud to himself of Wagner, "He cares." Adams, with his recent following of Cage's school of sonic experimentation, was unexpectedly moved by Wagner's high emotionalism. He felt the capacity of music to connect with its listeners emotionally, as well as intellectually. The combination of Cage's perception that any sound can be music, with Wagner's highly emotional and intellectual approach, led Adams to his own eclectic approach to composing.

At this point, Adams began to experiment with electronic music as reflected in his composition *Phrygian Gates* (1977–78). Adams considers this to be his first mature composition. To this day his music remains minimal in that he employs as few materials as necessary, rather than as few as possible, though he strives for and tends to achieve maximal effect.

CRITICAL REVIEW

Often regarded as an outstanding technical genius and influential composer of his generation, Adams has written in numerous genres, reflecting both theatrical and vernacular influences. His music is rugged and striking, and often expresses moments of grief. His music also exhibits a witty sense of humor, which he strongly felt should be brought back to music.

Adams was awarded the Pulitzer Prize in 2003 for his September 11, 2001 memorial piece, *On the Transmigration of Souls*. However, history reveals varied responses to his compositions, receiving criticism ranging between spectacular to insipid. His *Shaker Loops* was described in one review as "hauntingly ethereal,"²⁸ while his three-movement symphony *Naïve and Sentimental Music* has been called "an exploration of a marvelously extended spinning melody."²⁹ A *New York Times* reviewer called *Hallelujah Junction* "a two-piano work played with

²⁸Sarah Canice Funke, <http://classicalmusic.suite101.com/article.cfm/variationsandshakerloops>, San Francisco Symphony CD Review (accessed July 28, 2009).

²⁹The Standing Room: New Music Blog, "Long ride in a Stalled Machine," http://www.thestandingroom.com/blog/2004/10/long_ride_in_a_.html (accessed July 29, 2009).

appealingly sharp edges," and *American Berserk* "a short, volatile solo piano work."³⁰

The most conflict in Adams' collection is reserved for his historical opera, *Nixon in China*. While in retrospect it is clear that *Nixon in China* manifested interest for opera in modern day society, it was not always praised in reviews. At the onset, *Nixon in China* received mostly negative press. *New York Times* critic, Donald Henahan, characterized the world premiere by the Houston Grand Opera as "worth a few giggles but hardly a strong candidate for the standard repertory" and that "Mr. Adams does for the arpeggio what McDonald's did for the hamburger."³¹ Contrasting the initial skepticism, the opera has come to be revered as an influential production. Robert Hugill for *Music and Vision* called the work "astonishing...nearly twenty years after its premiere,"³² while Erica Jeal of London's *The Guardian* stated that *Nixon in China* has been the most influential

³⁰Allan Kozinn, "Beyond Minimalism: The Later Works of John Adams," *New York Times*, March 23, 2005.

³¹Donald Henahan, "Opera: *Nixon in China*," *New York Times*, October 24, 1987.

³²Robert Hugill, "Ensemble: A Mythic Story: *Nixon in China*," *Music & Vision*, July 2, 2006.

opera of the last twenty years."³³

Grand Pianola Music was no stranger to harsh reviews, which began immediately following the final note at its first performance in New York. The work's premiere had taken place several months earlier on the west coast, where the audience cheered excitedly.³⁴ However, at the work's conclusion, the east coast audience reacted decided quickly how they felt, and let Adams know in no uncertain terms.

A performance at Avery Fisher Hall actually did elicit some partisan boos, thereby giving the piece the luster of scandal, a value-added benefit by now rare in the otherwise tepid and polite world of contemporary art music. When I went onstage to take a bow the blood rushed to my face at the sounds of booing, but the pianist Ursula Oppens, a veteran of countless contemporary music concerts, grabbed my hand and said, "Oh my God, they're actually booing...don't you just love it?"³⁵

Adams accounts for some of the booing with the realization that the performance was substandard. He acknowledges that he did not understand at the time the importance of the level of musicianship required to attain a certain performance of the work. Nor did he understand proper scoring of this type of work. After he

³³Erica Jeal, "Nixon in China." *The Guardian* (London), June 19, 2006.

³⁴May, 286.

³⁵Hallelujah Junction, 118.

made corrections and revisions to the piece and found singers with "pinpoint intonation,"³⁶ the piece found its own niche in his repertoire.

New York Times writer, Anthony Tommasini, praised Adams for his work conducting the American Composers Orchestra in 2007 at Carnegie Hall. The April concert was a performance in celebration of Adams' lifelong work on his sixtieth birthday. Tommasini described Adams as a "skilled and dynamic conductor."³⁷

³⁶Ibid.

³⁷Anthony Tommasini, "Doing Everything but Playing the Music," *New York Times*, April 30, 2007.

CHAPTER 3

THE SCORING OF GRAND PIANOLA MUSIC

On John Adams' website, *Grand Pianola Music* is listed in the "Other Works" category.³⁸ This is due to the complex scoring of the work, which cannot quite be categorized as solely for wind band but is too large to be considered an orchestral chamber work. The work is scored as follows: Flute 1 (Piccolo 1), Flute 2 (Piccolo 2), Oboe I, Oboe 2, B-flat Clarinet 1, B-flat Clarinet 2 (doubles on Bass Clarinet), Bassoon 1, Bassoon 2, F Horn 1, F Horn 2, B-flat Trumpet 1 (C Trumpet 1 in *Part IB* only), B-flat Trumpet 2 (C Trumpet 2 in *Part IB* only), Trombone 1, Trombone 2, Tuba, Percussion 1, 2, 3 (covered by three players), Amplified Women's Voices 1, 2, 3 (Two Sopranos and a Mezzo Soprano), Piano 1, and Piano 2.

The percussion instruments include Vibraphone (which he calls "Metallophone" in the context of the score and is shared by both Percussion 1 and 2 players), Xylophone, Marimba, Glockenspiel, Crotales, two Bows (for Crotales and Vibraphone), two Suspended Cymbals,

³⁸John Adams' Personal Website, "List of Works," <http://www.earbox.com/listofworks.html> (accessed July 28, 2009).

Crash Cymbals, five Tenor Drums, Small Pedal Bass Drum, Large Bass Drum, Maracas, High Wood Block, Tambourine, and two Triangles.

The transposed score is often minimized to include only the instruments playing, creating a challenge for the conductor. A survey of the score reveals breaks within the staves of music that often create two or more grand staves on one page at a time.

Special techniques include using various mutes for the F Horns, Trumpets, Trombones, and Tuba.

Additionally, Adams occasionally specifies bowing directions for the crotales, for the purpose of synchronizing the two percussionists playing the instruments. He also occasionally indicates (non-brand specific) mallet choices for the percussion, as in m. 345 of *On the Dominant Divide* where he suggests a "soft mallet" for the large bass drum in Percussion 3, and then a "wood mallet" in m. 350 for the same part and movement.³⁹ "Unity cues" (boxed numbers) are provided in

³⁹John Adams, *Grand Pianola Music*, 1982 (New York: Associated Music, 1994), 130-31.

On the Dominant Divide, and should be [gestured] by the conductor to help keep the group together.⁴⁰

Traditional notation is used throughout. Many meter changes are encountered, as well as tempo changes where the eighth note remains constant. Additionally, polyrhythms and hemiolas occur where triple versus duple patterns emerge. For example, at m. 215 in *Part IA* the marimba plays a duple pattern while both piano 1 and 2 contain a triple pattern.

Written dynamic instructions are presented in standard format (*piano, forte, etc.*). Additionally, stylistic terms such as *sempre staccato, muted, open (mute out), half ped. and una corda sempre* (for the pianos), *sempre staccatissimo, sonorously, gliss.* (in trombone part, m. 365 in *Part IA*), *brilliantly* (piano 1 m. 405 in *Part IA*), *poco piu moso*, and *subito* are found. Italian is used for the stylistic terms and English for instructions.

The work owes its existence to a commissioning project by General Atlantic Corporation in Palo Alto, California and David M. Rumsey, a philanthropist with an

⁴⁰*Ibid.*, 84.

interest in the arts.⁴¹ The premiere performance occurred on February 26, 1982 with the composer conducting members of the San Francisco Symphony and pianists, Robin Sutherland and Julie Steinberg.

The 1994 published score catalog number is AMP-7995. The publisher of the music is G. Schirmer, Inc. and is available for rent through their rental department.

⁴¹Stanford University Libraries and Academic Information Resources, "SULAIR Advisory Council 2008-2009," http://www-sul.stanford.edu/about_sulair/committees/bios-ac.html (accessed November 18, 2009).

CHAPTER 4

FORMAL ANALYSIS: INFORMED BY DYNAMICS AND TEXTURE

In *Grand Pianola Music* the relationship of dynamics and texture to form is particularly important due to the compositional procedures and construction of this post-minimal piece. Minimal aspects that change gradually or negligibly, such as rhythm or tonality, are amplified aurally by the change of dynamics and texture.

Frequently, dynamic and textural changes are the only elements that change over a period of time. For these reasons, this chapter focuses on texture and dynamics and their impact on form. However, before proceeding with the textural and dynamic analysis, it is important to provide a formal context for understanding Adams' use of these compositional devices.

The formal architecture is particularly critical for conductors due to the challenge of managing the large-scale, thirty-minute work, which contains no pauses for the first twenty-three minutes. Furthermore, large sections within each movement require more detailed formal organization to guide a conductor's pacing of the work. The smaller formal divisions revealed in the succeeding material are based on

examination of all elements. However, in comparing the relationship of dynamics and texture to form, one discovers that traditional elements, such as tonality and rhythm, are less relevant in defining the architectural design.

GRAND PIANOLA MUSIC: FORM AND TONALITY

The opening movement divides into two larger sections: *Part IA* and *Part IB*, as noted by the composer.⁴² Interestingly, the first movement in the published score only indicates Part I, without any indication of *Part IB*. However, in Adams' autobiography, as well as the recording released by the London Sinfonietta with Adams conducting, the composer solidifies this two-part conception by labeling the recording tracks *Part IA* and *Part IB*.

Identifying *Grand Pianola Music's* formal sections with corresponding measure numbers provides some proportional perspective. However, given the mesmerizing repetition and Adams' efforts to transcend metric awareness, a more accurate measurement of proportions may be actual clock time. Consequently, for the purpose

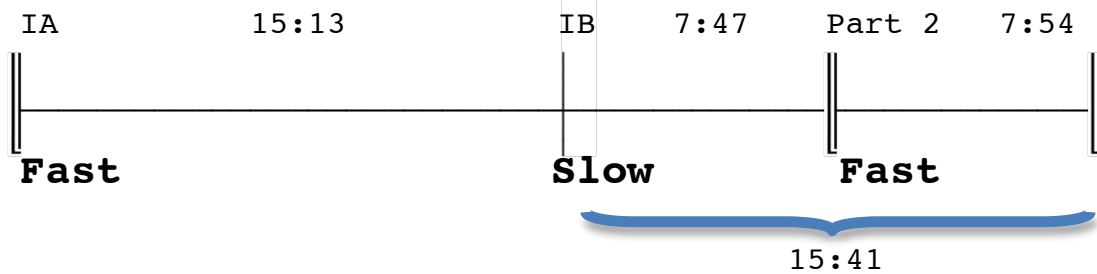
⁴² John Adams, *Hallelujah Junction: Composing an American Life* (New York: Farrar, Straus and Giroux, 2008), 117.

of this document, all references to duration in clock time are referenced with John Adams' recording with the London Sinfonietta (Nonesuch Records, 1993).

The length of *Part IA* equals approximately half of the entire composition's thirty-minute duration. The movement totals 659 measures and lasts fifteen minutes and thirty seconds. *Part IB*, mm. 660-783, is 123 measures in length and seven minutes and forty-seven seconds in duration. The third movement notated in the published score as *Part 2: On the Dominant Divide*, is 380 measures and timed at seven minutes and fifty-four seconds.

When the conductor embarks on the journey of studying this score, it is important to note that the first sixty-nine pages present *Part IA* at an unrelenting pace. *Part IB* and *Part 2: On the Dominant Divide* combine to approximately equal the duration of *Part IA*. *Part IB* is significantly slower in tempo than *On the Dominant Divide*, however, the two movements are approximately equal in clock time. The overall formal structure, illustrated proportionally in Figure 4.1, is fast, slow, fast.

Figure 4.1: *Grand Pianola Music*. Proportional formal structure in clock time.



The preceding graph provides an aerial framework from which the subsequent smaller formal divisions can be viewed.

PART IA: FORM

Similar to early minimal style, *Part IA* of *Grand Pianola Music* follows a sectional organization. *Part IA* divides into twelve sections. Delineation of these sections is challenging to identify aurally due to an almost seamless progression of events. However, close examination of dynamics and texture provide important signals for defining the formal divisions. Figure 4.2 provides measure groupings, stylistic features, and the passage of clock time for each of the twelve sections. The information in the figure aids as an overview for pacing the work, as well as a memorization and organizational tool for conductors.

Figure 4.2: Grand Pianola Music, Part IA. Form analysis.

<p>Section 1</p> <p>mm. 1-126</p> <p>Begins <i>p</i> oscillating ostinato pecking pattern that permeates entire work, bassoons enter at :31 with long-held oscillating pattern</p> <p><u>Duration</u> 3:02</p>	<p>Section 2</p> <p>mm. 127-201</p> <p>Brass enters; new long-note rhythmic element introduced; Phasing of lines; expansion of intervals</p> <p><u>Duration</u> 1:50</p>	<p>Section 3</p> <p>mm. 202-277</p> <p>Voices enter for first time; triplet rhythm introduced by pianos; first melody appears</p> <p><u>Duration</u> 2:11</p>	<p>Section 4</p> <p>mm. 278-315</p> <p>Immediate texture reduction with <i>ff</i> dominating brass; two-note motives become predominant; rhythmic density increased; arpeggiated patterns in pianos</p> <p><u>Duration</u> :55</p>	<p>Section 5</p> <p>mm. 316-362</p> <p>Sonorous style and tempo change; pecking is reintroduced accompanied by a variation of the two-note motives</p> <p><u>Duration</u> 1:06</p>	<p>Section 6</p> <p>mm. 363-406</p> <p>Use of glissandi effects and rapid dynamic outbursts; wide registral peaks; tutti same note pecking with wide dynamic range</p> <p><u>Duration</u> 1:00</p>
<p>Section 7</p> <p>mm. 407-428</p> <p>Pecking continues; sporadic <i>ff/fff</i> punches from percussion and brass</p> <p><u>Duration</u> :28</p>	<p>Section 8</p> <p>mm. 429-470</p> <p>Return of rhythmic ideas from Section 2; dynamics are <i>fff</i> to start and decay to <i>p</i></p> <p><u>Duration</u> :52</p>	<p>Section 9</p> <p>mm. 471-550</p> <p>Emphasis on long vocal lines; stasis created by repeated quarter notes</p> <p><u>Duration</u> 1:46</p>	<p>Section 10</p> <p>mm. 551-597</p> <p>Static harmony with repeated ascending pitches in the vocal parts; oscillation returns in the pianos</p> <p><u>Duration</u> :54</p>	<p>Section 11</p> <p>mm. 598-628</p> <p>Repeated pitches continue, Long rhythmic values permeate texture; top vocal part is dominant line</p> <p><u>Duration</u> :34</p>	<p>Section 12</p> <p>mm. 629-659</p> <p>Diminishing forces, Gentle rocking back and forth in tonal centers in the pianos and voices</p> <p><u>Duration</u> :36</p>

PART IA: TONALITY

The tonality in *Part IA* fluctuates to many tonal regions throughout the movement. However, unlike conventional minimal works the tonality modulates to keys that are not closely related. For example, the first tonality presented is E-flat major. At m. 127, the tonality shifts up a major second to F major. While both

are flat keys, they are not closely related tonal centers, due to the tonality shift without modulating appropriately.

Additionally, harmonic fluctuation on the larger scale is symbolic of the fluctuation manifested by the oscillation between pitches on the smaller scale. For example, at the microscopic level, two prominent pitches found in the opening piano oscillating material are E-flat and D. The D presents conflict and dissonance against the E-flat in the oscillation and the overall tonality at the beginning. At the macro level, *Part IA* begins in E-flat major and ends in D major, presenting the same pitch relationship spanning over fifteen minutes.

Furthermore, similar to the opening material, the relationship between E-flat and D also reflects on a small scale the dialectic tension found in the bassoons in mm. 23-66. While the opening oscillation of E-flat and D occur in successive hypnotic quarter notes, the bassoon entrance contains the first long-held pitches of the piece, sustaining for fifteen quarter-note durations in the first entrance. The oscillation occurs at a slower rate due to elongated note lengths.

Note that the eighteen tonal regions identified in Figure 4.3 differ from the previous formal graph, which organizes the same material into twelve sections. Tonalities indicated in Figure 4.3 reflect the most dominating tonality for that measure grouping. While identifying tonal regions is important for the conductor, it is also significant to know that only nine of the eighteen tonal regions align with the formal section change. The simultaneous changes occur at mm. 1, 127, 278, 363, 407, 429, 471, 551, and 598. When a fluctuation in tonality occurs simultaneously with a section change, the effect is more aurally intensified.

Figure 4.3: Grand Pianola Music, Part IA. Tonal regions.

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>
m. 1	m. 127	m. 147	m. 198	m. 215	m. 229	m. 247	m. 278	m. 287
E-flat major	F major	G major	E minor	C major	E major/ minor	E minor	B-flat/ E-flat major	D/B major
<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>15</u>	<u>16</u>	<u>17</u>	<u>18</u>
m. 292	m. 363	m. 407	m. 429	m. 471	m. 551	m. 578	m. 598	m. 627
B-flat/ E-flat major	A-flat/ E-flat major	E major/ minor	F major	C major	F major	B-flat major	E major	D major

PART IB: FORM

In contrast to the multi-sectional structure of *Part IA*, the form of *Part IB* is a more conventional form: Introduction ABCA' Codetta. While the character of *Part IB* resembles that of a classical symphony's slow movement, it is distinctly different in that the beginning of *Part IB* elides with sounds from the first movement. Additionally, *Part IB* is further distinguished by prominent homophonic solo passages found in the oboe and tuba parts. Figure 4.4, similar to the formal graph of *Part IA*, provides starting and ending points for the six sections, as well as characteristic features and durations.

Figure 4.4: Grand Pianola Music, Part IB. Form analysis.

<u>Introduction</u> mm. 660-673	<u>A</u> mm. 674-692	<u>B</u> mm. 693-709	<u>C</u> mm. 710-742	<u>A'</u> mm. 743-774	<u>Codetta</u> mm. 775-783
Tempo change from first movement; Presentation of melodic materials used in this movement; set up of overall mood	Oboe solo begins with spinning out of melody; return of rearticulated notes found in first movement	Tempo change to even slower tempo; Tutti chords with drastic dynamic contrast; slow oscillating returns in xylophone and pianos	Tuba solo in extreme register; voices return and emphasize harmony	Oboe solo partially returns in variation, tempo returns to opening tempo	Unified ending with quarter notes in FL 1/CL 1/Piano 2 parts; Piano 1 continues with ascending flourishes
<u>Duration</u> :51	<u>Duration</u> 1:08	<u>Duration</u> 1:12	<u>Duration</u> 2:57	<u>Duration</u> 1:56	<u>Duration</u> :35

PART IB: TONALITY

Whereas the formal construction of *Part IB* is divided into six sections, tonality is based in only two tonal regions, E major/minor and B major. The plagal relationship reflects the peaceful and contemplative character of the movement. Additionally, the austere focus on only two regions emphasizes tonal stability and restraint. The absence of abundant tonal regions further illustrates that tonality compliments rather than directs the formal architecture. The tonal scheme of *Part IB* is seen in Figure 4.5.

Figure 4.5: *Grand Pianola Music*, Part IB. Tonal regions.

Intro	A	B	C	A'	Codetta
	mm. 660-692		m. 693-783		
	E Major/minor (IV)		B Major (I)		

The two tonal centers, E major/minor and B major, not only anchor the large formal scheme, but also reflect many intervallic occurrences at the fifth in independent melodic lines. For example, the upper woodwinds in m. 684, the second flute in m. 692, and the second piano in m. 710 are a few instances that reveal the pervasive fifth relationship. Additionally, major and minor second oscillations that first appear in *Part IA* return. For example, in m. 697 and the five succeeding measures, which include the apex of the movement, the trumpets, second flute, and pianos move downward from C-sharp to B. Simultaneously, the second trombone, second bassoon, bass clarinet and pianos move upward from D-sharp to E. The alternating pitches create chords that oscillate until m. 702.

ON THE DOMINANT DIVIDE: FORM

Similar to the multi-sectional structure of *Part IA*, the form of the third movement is divided into eight sections. The distinguishing characteristic introduced in this movement is a gospel-style melody revealed in the first piano in Section 3 and continued by other instruments into Section 4. This tune transcends earlier melodies in that it contains traditional antecedent and consequent phrases. Adams states that, "with each iteration (the melody) gains in gaudiness and Lisztian panache until it finally goes over the top to emerge in the gurgling C major of the lowest registers of the pianos."⁴³

Each of the eight sections seamlessly join with the next, maintaining some qualities from the previous section as well as presenting new material. The final movement contains recurrences of phasing, pecking, oscillating, and rhythmic elements from *Part IA* and harmonic relationships at the interval of the fifth from *Part IB*.

⁴³ John Adams' Personal Website, "Grand Pianola Music," <http://www.earbox.com/W-grandpianola.html> (accessed July 28, 2009).

Figure 4.6, similarly constructed to the formal chart of *Part IA*, contains the eight sections with identifying features and duration.

Figure 4.6: *Grand Pianola Music, On the Dominant Divide.* Formal analysis.

<u>Section 1</u>	<u>Section 2</u>	<u>Section 3</u>	<u>Section 4</u>
<p>mm. 1-60</p> <p>Begins oscillating ostinato pattern similar to <i>Part IA</i>; motivic devices from <i>Part IA</i> occur in sporadic appearances; return of same note reiterations</p> <p><u>Duration</u> 1:22</p>	<p>mm. 61-93</p> <p>Duple vs. Triple polyrhythm used; section dominated by same note reiterations; dynamics are more unified acting as the element of change</p> <p><u>Duration</u> :46</p>	<p>mm. 94-138</p> <p>Tempo gradually relaxes; section contains the first two statements of the gospel style melody</p> <p><u>Duration</u> 1:08</p>	<p>mm. 139-185</p> <p>Tempo is restored to original pace; Textural density increases; pianos continue with statements three and four of the gospel style melody; brass begin an incomplete fifth/final statement of the gospel style melody; vocal line contains "For I have seen the Promised Land." <u>Duration</u> 1:10</p>
<u>Section 5</u>	<u>Section 6</u>	<u>Section 7</u>	<u>Section 8</u>
<p>mm. 186-249</p> <p>Texture is reduced initially; layering used to again begin building tension</p> <p><u>Duration</u> 1:28</p>	<p>mm. 250-294</p> <p>Tempo increases gradually throughout; key changes oscillate between e/E-flat; tension increases</p> <p><u>Duration</u> :43</p>	<p>mm. 295-349</p> <p>Arrival of ending tempo; short bass drum and tam tam notes combined with accented long notes create rhythmic drive; uncertainty and use of layering to continue tension</p> <p><u>Duration</u> :46</p>	<p>mm. 350-380</p> <p>Music becomes stable; Static harmony with same note reiteration found in many parts; oscillation returns in the pianos; dynamic builds to <i>fff</i> ending</p> <p><u>Duration</u> :25</p>

ON THE DOMINANT DIVIDE: TONALITY

As the subtitle suggests, the uncertainty of the tonic and dominant relationship permeates this movement. To achieve this conflict, Adams frequently utilizes pitches simultaneously from both the tonic and dominant keys. The tonal conflict is first applied at the beginning through m. 81 by the duality of A-flat/E-flat and B-flat/E-flat.

Figure 4.7 also reveals other long-term tonality relationships that strengthen the conductor's view. The first three tonal regions underscore the simultaneous tonic/dominant struggle between A-flat/E-flat, and B-flat/E-flat. Tonal boxes 4-7 place the same tonal ambiguity via linear fluctuation instead of vertical conflict. The eighth box indicates a brief three-measure return to the A-flat/E-flat vertical uncertainty before launching into seven minor mode tonal regions. Tonal boxes 9-15 fluctuate between C minor, E minor, and G minor. The last two boxes, 20 and 21, secure tonal closure by emphasizing E-flat major for sixty-two measures before closing the entire work on the tonic, A-flat major. The clear tonic and dominant relationship is reinforced by assertive rhythmic iterations.

Figure 4.7 separates the movement into twenty-one tonal regions. The lengths of the tonal regions vary from two measures in Box 8 to a general tonality found in Box 7's eighty-four measures. Ten, or almost half of the twenty-one tonal boxes contain the presence of E-flat major. The first time a minor mode appears is in Box 8 in C minor. Additionally, in this movement Adams utilizes points of furthest remove as illustrated in tonal boxes 9-15.

**Figure 4.7: *Grand Pianola Music, On the Dominant Divide.*
Tonal regions.**

<u>1</u> m. 1 A-flat/ E-flat major	<u>2</u> m. 61 B-flat/ E-flat major	<u>3</u> m. 75 A-flat/ E-flat major	<u>4</u> m. 82 E-flat major	<u>5</u> m. 87 A-flat major	<u>6</u> m. 91 B-flat major	<u>7</u> m. 94 E-flat major	<u>8</u> m. 178 A-flat/ E-flat major	<u>9</u> m. 181 C minor
<u>10</u> m. 184 E minor	<u>11</u> m. 186 C major	<u>12</u> m. 200 E minor	<u>13</u> m. 205 C major	<u>14</u> m. 241 G minor	<u>15</u> m. 262 E minor	<u>16</u> m. 268 E-flat major	<u>17</u> m. 274 E minor	<u>18</u> m. 279 E-flat major
<u>19</u> m. 284 E minor	<u>20</u> m. 288 E-flat major	<u>21</u> m. 350 A-flat major						

While the previous information reveals important formal and tonal elements, the following section of the document underscores the more dramatic, tension building elements of dynamics and texture.

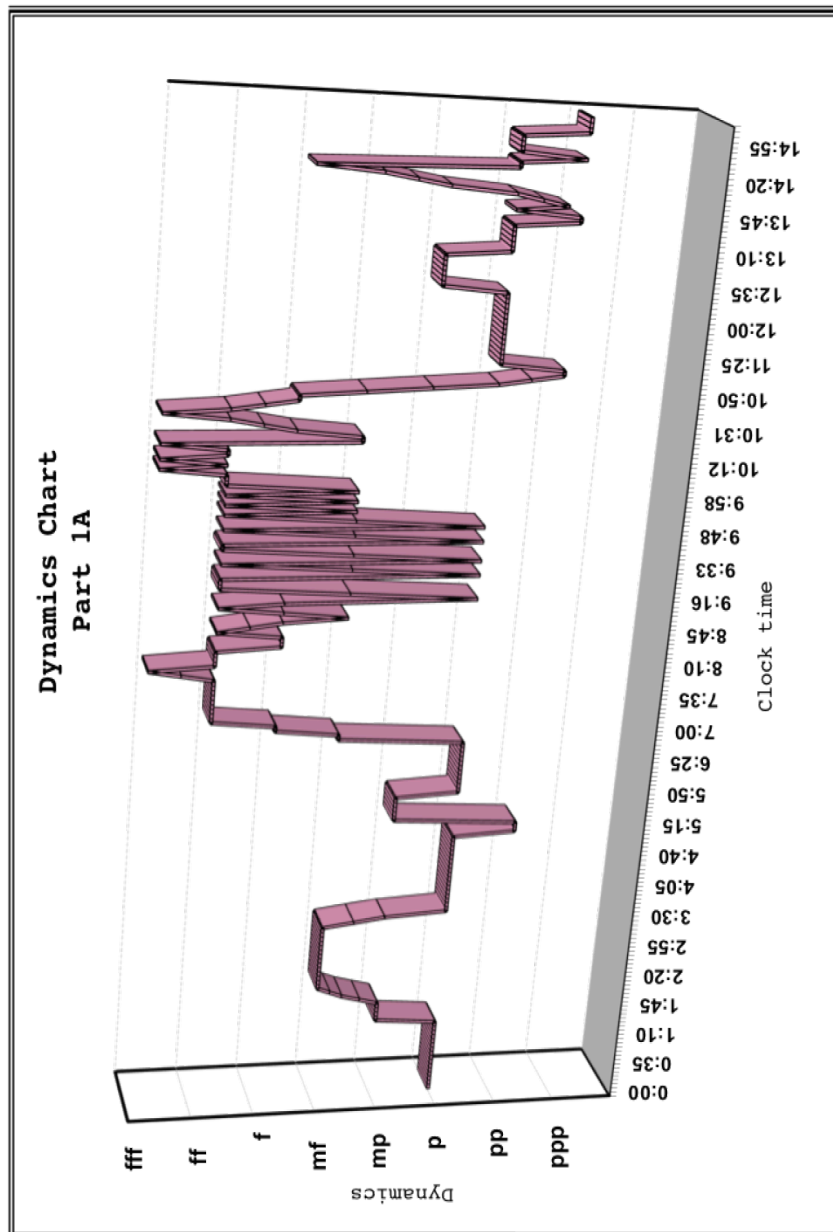
DYNAMIC AND TEXTURE CHARTS: CONSTRUCTION

To better illustrate the large-scale form, the following charts define the parameters of dynamic and texture changes. In constructing the charts, the x-axis contains the clock time element, which is derived from Adams' recording with the London Sinfonietta. In the Dynamic Chart, the y-axis contains markings from *piano-pianissimo* to *forte-fortissimo*. In the Texture Chart, the y-axis illustrates orchestration from top to bottom of the score. The data was collected by noting any change in dynamics or texture, measured over clock time.

Data for the Dynamics Chart was measured in five-second increments, due to the gradual, yet ever-transforming, nature found in the post-minimal style. Change occurring during the passing of every five seconds was notated on a spreadsheet by assigning each dynamic a number from one to eight. The number "1" represents *piano-pianissimo* where "8" represents *forte-fortissimo*. When crescendo or decrescendo dynamics

occur, integers were divided to the tenth place in increments lasting the duration of the gradual dynamic change. Additionally, if a terraced dynamic effect was used in the score, the data entered reflects a corresponding immediate change.

Figure 4.8: Part IA. Dynamics Chart.



Adams frequently uses simultaneous multiple dynamics to equalize a possible dominating color over another. Due to the requirement of plotting one data point per dynamic change, a judgment of which dynamic to utilize was necessary. For all circumstances where multiple dynamics occur, the plotting point was determined by the dominating texture.

An example of this subjective decision occurs in *Part IA* at m. 127, where the brass enter for the first time at three minutes and two seconds. Due to the brass color typically dominating the texture, Adams' dynamic marking is *piano* and the instruments are muted. Simultaneously, the pianos, flutes, and bassoons previously marked *piano* increase to *mezzo-forte*. The clarinets already playing *mezzo-forte* before m. 127 maintain the *mezzo-forte* dynamic. Additionally, the woodwind texture becomes reinforced with rhythmic, same-note iterations found in the pairs of clarinets and bassoons in lieu of the rhythmically weaker oscillating pattern. These changes allow for the energy and texture to increase while keeping the varied iterations as foreground material.

Example 4.1: Grand Pianola Music, Part IA, mm. 125-130.
Multiple dynamics used simultaneously at m. 127.

The musical score is arranged in systems. The first system includes Flutes 1 & 2, Clarinets 1 & 2, Bassoons 1 & 2, Horns 1 & 2, Trumpets 1 & 2, Trombones 1 & 2, Percussion 1 & 2, and Pianos 1 & 2. The score shows a dynamic shift at measure 127. The woodwinds and brass instruments (Flutes, Clarinets, Bassoons, Horns, Trumpets, Trombones) all change to *mf* (sempre staccato). The strings (Horns, Trumpets, Trombones) change to *p* (muted). The Percussion parts (Crotales and Metallophone) change to *p*. The Piano parts change to *mf*. The score also includes performance markings such as *mp*, *mf*, and *p* for various instruments throughout the passage.

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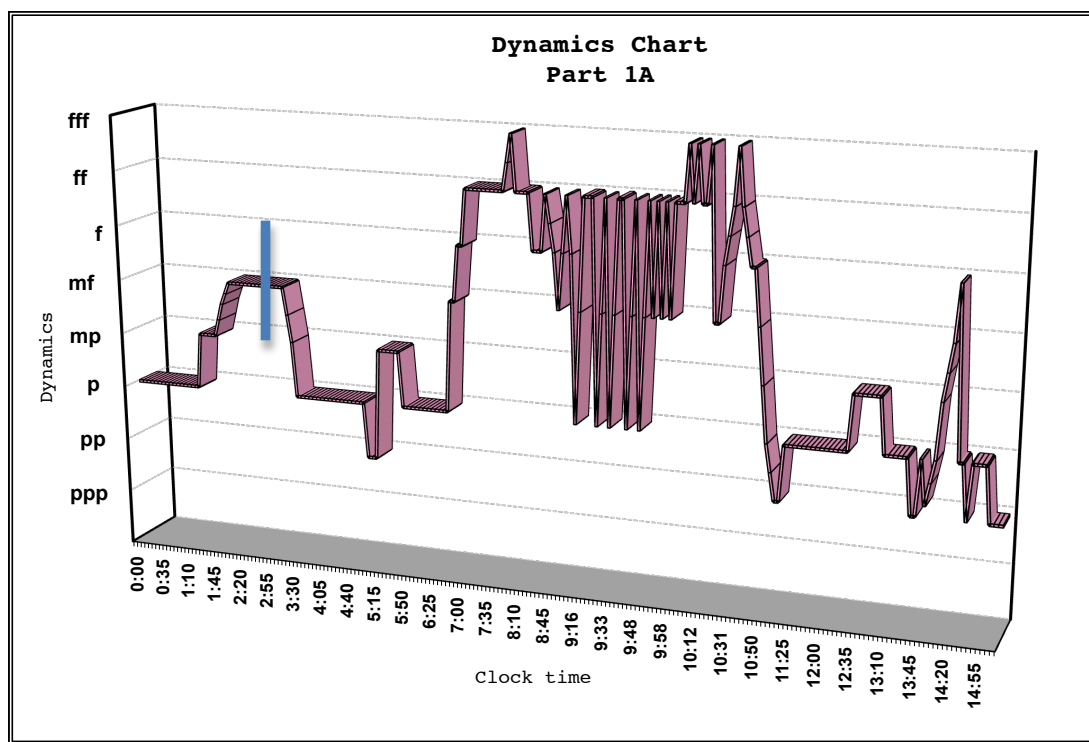
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In the previous example, Adams presents a muted, *piano* brass color while increasing the dynamic and rhythmic strength of the woodwind texture. Therefore, the plotted dynamic for Example 4.1 occurring at three minutes and two seconds on the *Part IA* Dynamic chart was *mezzo-forte*.

Figure 4.9: *Part IA*. Dynamics Chart with blue line indicating where multiple dynamics occur, at 3:02.



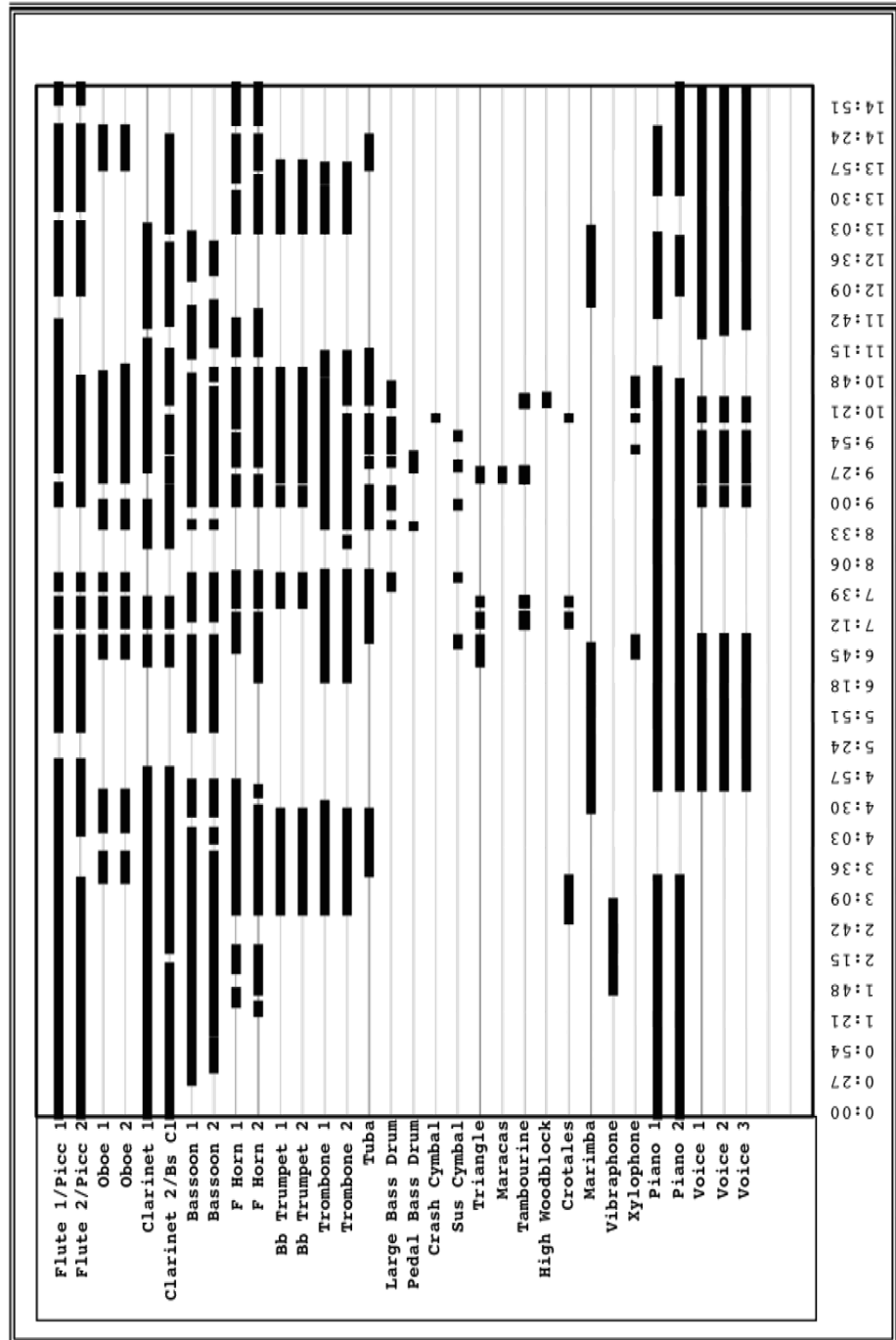
Furthermore, the vertical blue line in Figure 4.9 illustrates that the *mezzo-forte* dynamic at three minutes and two seconds simply maintains the previous increase at two minutes and five seconds, in m. 88.

Similar to Example 4.1, material presented at m. 88 utilizes both *piano* and *mezzo-forte*. However, using the same above-mentioned criteria, the dominating texture of *mezzo-forte* was plotted.

In the Dynamics Chart, data was entered every five seconds. The construction of the Texture Chart required data entry at one-second increments. Due to the near-immediate response in sound production from an instrument or voice, the necessity to relay this particular data collected in a linear graph, and to ensure the chart's accuracy, it became necessary to collect the texture data for every second. Each instrument and voice was assigned a number, depending on the orchestration involved for each movement. For example, in *Part IA*, thirty-two separate sounds appear during the movement. Each instrument and voice's number was entered into a spreadsheet for every second that it produced sound. Due to the detailed data, even rests a few seconds long appear as noticeable breaks in sound that can be seen in each of the Texture Charts.

Figure 4.10: Part IA. Texture Chart.

Texture Chart
Part IA



With the presentation of formal design and tonality elements for *Grand Pianola Music*, and information on chart construction completed, the remainder of the chapter focuses on how Adams' use of dynamics and texture material informs the conductor of the architectural peaks and valleys.

PART IA: DYNAMICS AND TEXTURE

After examining rhythmic, harmonic, timbral, registral, dynamic, and textural elements in regard to their roles in *Grand Pianola Music*, dynamics and texture stand out as particularly important for building and releasing tension within the formal structure. Adams is exceptionally adept at both profound and subtle change in dynamics to achieve constant fluctuation of energy. Additionally, change of texture creates similar ebb and flow. The following selected material is presented chronologically from Adams' work.

The work begins with pairs of flutes, clarinets, and pianos performing continuous pattering and oscillating figures that unify the work from beginning to end. The passage at the beginning of *Part IA* illustrates Adams' creative orchestration and predilection for scoring homogenous pairs of

instruments. By scoring the instrument pairs in their middle ranges at the same dynamic and octave, the six players are fused from three timbres into one blended texture.

**Example 4.2: *Grand Pianola Music, Part IA*, mm. 1-8.
Homogenous scoring with soft dynamic in middle ranges creates one blended texture at the beginning.**

Flute 1 (Piccolo 1)
Flute 2 (Piccolo 2)
Clarinet in Bb 1
Clarinet in Bb 2 (Bass Clarinet)
Piano 1
Piano 2

$\text{♩} = 96$

p

Pia sempre

p

Pia sempre

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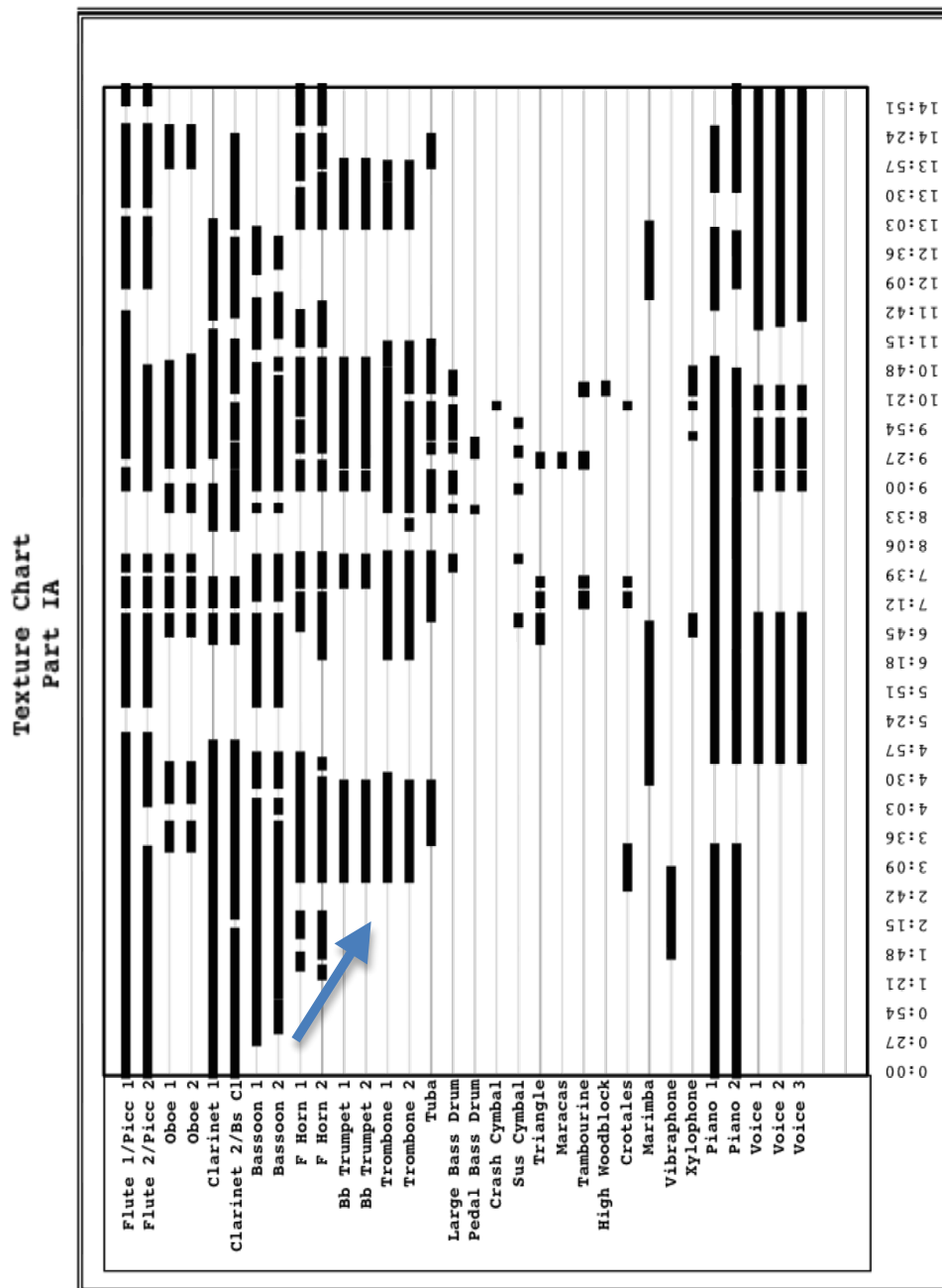
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The narrowly-voiced texture of the opening combined with a soft dynamic establishes the palette from which the music expands and develops. By beginning with three yet non-distinctive timbres, Adams allows for exponential textural growth. Additionally, the *piano* marking creates the same freedom for growth in dynamic

range. The nervously oscillating rhythmic iterations project the work's potential energy.

In the extended opening, which lasts for three minutes, Adams develops the oscillation by varying the patterns or arpeggiations while expanding the color palette to include bassoons, horns, vibraphone, and crotales. At m. 127, the texture and dynamics are further augmented to include the first entrance of the brass playing long-held pitches at a *piano* dynamic, while the existing timbres increase their dynamic to *mezzo-forte*. The newly introduced tutti texture created by the brass entrance contrasts vastly with the continuous iterations that primarily dominated in the previous material. Additionally, the unified approach to the brass orchestration foreshadows future events. The textural and dynamic expansion, combined with a rare change of key, punctuates the change to Section 2. The arrow in Figure 4.11 identifies the sudden expanded texture with the entrance of all the brass instruments except for tuba at m. 127, or three minutes and two seconds.

Figure 4.11: Part IA. Texture Chart showing expansion to include tutti brass at 3:02.



While the previous chart clearly illustrates the textural change at three minutes and two seconds,

Example 4.3 presents texture, dynamics, and a key change at the beginning of Section 2.

**Example 4.3: *Grand Pianola Music, Part IA*, mm. 125–130.
New section defined by texture, dynamic, and key change.**

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In m. 202, after almost five minutes, the voices enter for the first time. The vocable "Nah" allows the "cooing sirens" to unobtrusively enter, while providing harmonic support.⁴⁴ The pianos, which have been absent from the texture for a minute and a half, return with a triplet rhythmic variation derived from the original oscillating material. Example 4.4 demonstrates the textural expansion at m. 202 to include the first voice entrance and the return of the piano timbre.

⁴⁴ John Adams, *Hallelujah Junction: Composing an American Life* (New York: Farrar, Straus and Giroux, 2008), 117.

**Example 4.4: Grand Pianola Music, Part IA, mm. 201-204.
Textural expansion to include voices and piano.**

The musical score for Example 4.4, "Grand Pianola Music, Part IA, mm. 201-204," is presented in a standard orchestral layout. It includes parts for Flute 1 and 2 (Picc. 1 and 2), Clarinet 1 and 2, Bassoon 1 and 2, Horn 1 and 2, Percussion (Mar.), 3 Women's Voices, and Piano 1 and 2. The piano parts feature triplet chords with *pp* dynamics and "half Fl and una corda" markings. The vocal part has "Nah" lyrics. The horn parts have "open" and "mute out" markings.

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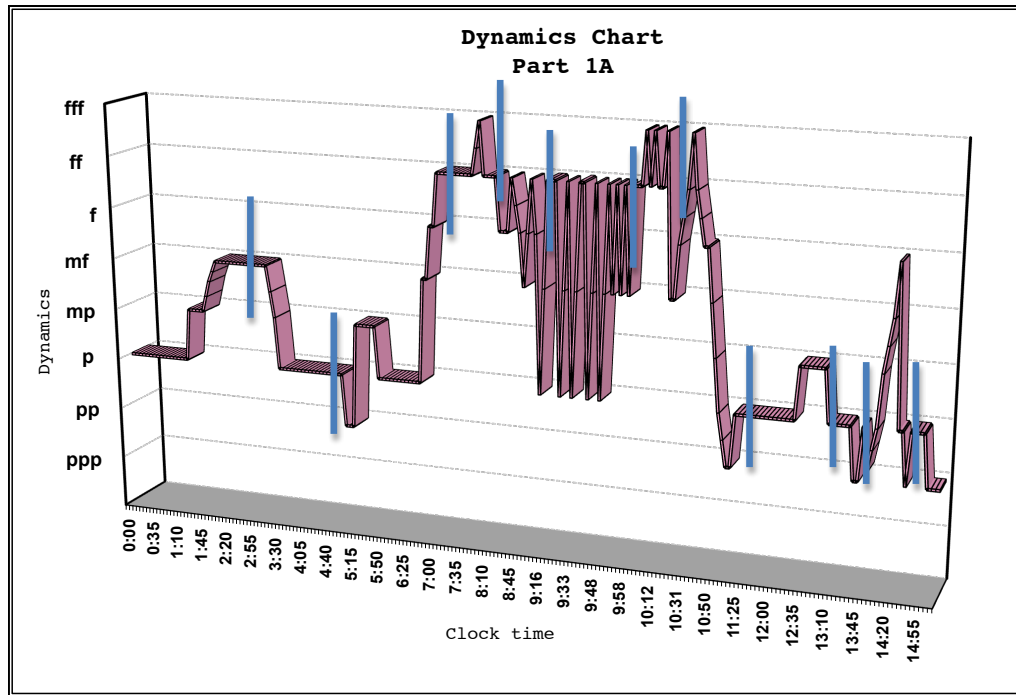
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The first introduction of the vocal parts, combined with the restoration of the piano timbre, signals the beginning of Section 3 at m. 202. The soft dynamics at

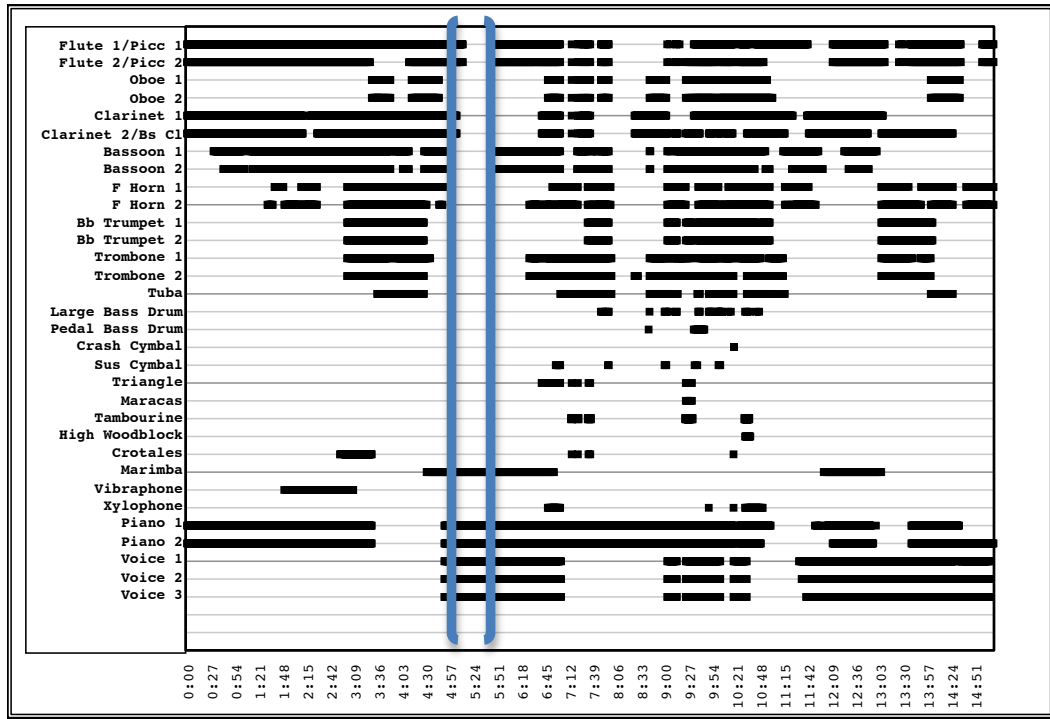
this point are important in that they prepare the first of five *forte-fortissimo* peaks in the movement.

Figure 4.12: Part IA. Dynamics Chart with twelve formal sections. Section 3 dynamic prepares the first *forte-fortissimo* peak.



Between mm. 202-215, or four minutes and fifty-two seconds to five minutes and fifteen seconds, the texture as illustrated in Figure 4.13 gradually returns to three timbres.

Figure 4.13: Part IA. Texture Chart. Bracket illustrates reduction to three timbres occurring in Section 3.



The return contrasts the opening three-timbre material in that this occurrence yields two distinctive textures, rather than one. At m. 215, the marimba and pianos serve as accompanimental background material an octave apart, while the vocables emerge to take the foreground. The pure homogenous timbres of the voices begin their foreground material fixed on an E minor chord in second inversion, while the keyboards outline a static C major seventh chord. The textural reduction,

similar to the decrease in dynamics, prepares the upcoming increase into Section 4.

**Example 4.5: *Grand Pianola Music, Part IA*, mm. 215–219.
Reduction of texture to three timbres with two defined lines in keyboards and voices.**

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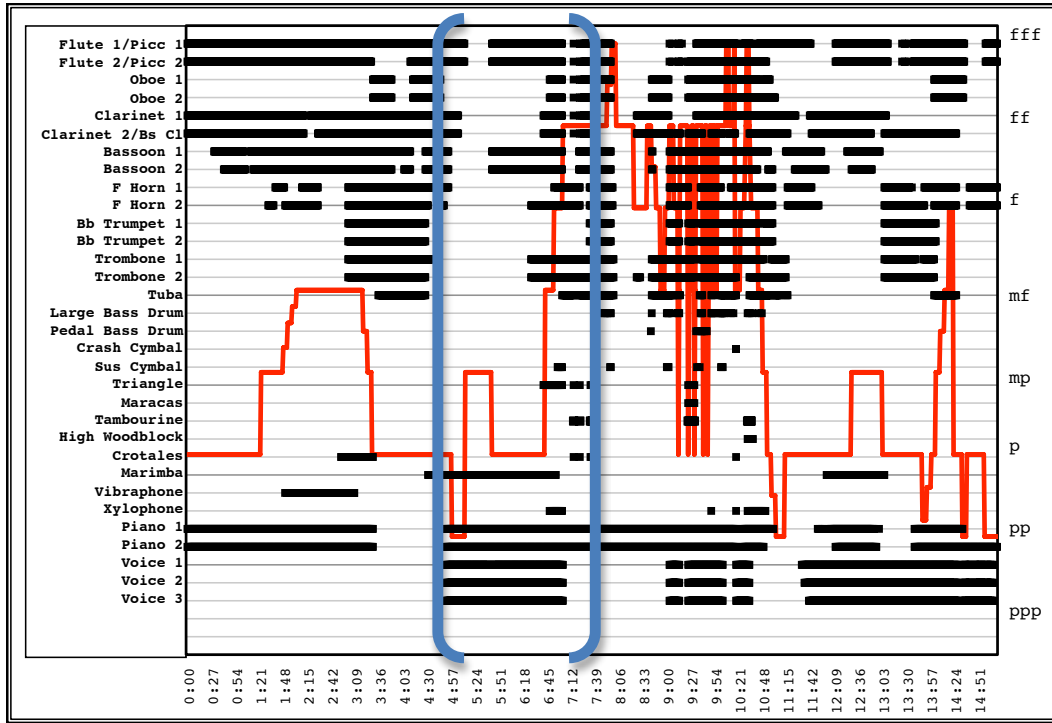
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While the beginning of Section 3 creates a foundation for potential growth, the end of Section 3 from mm. 270–77 prepares Section 4 by increasing dynamic and textural density. In Figure 4.14, the arrival of Section 4 at m. 278 is effectively achieved by the terraced growth of both texture and dynamics. The textural density increases by adding here-to-fore resting winds and the first occurrence of non-pitched percussion.

Figure 4.14: Part IA. Combined Dynamics and Texture Chart. Bracket identifies the increase of dynamics and texture that build to the *fortissimo* peak in Section 4.



The *fortissimo* peak reached at seven minutes and three seconds, or m. 278, denotes the beginning of Section 4.

A strong identifying feature of Section 4 is the marcato-articulated and rhythmically isolated two-note motive foreshadowed in earlier material. Subtle references to the two-note motive are identifiable in several places including the two-note oscillating opening material, the accented groups of long-held brass

notes in Section 2, and octave leaps in the woodwinds throughout Section 3. The well-defined two-note motive, first seen at m. 278, is the culmination of the motivic material previously stated.

Example 4.6 illustrates the same material as found in the opening segment of Section 4 where long-held decaying notes are played by the brass, while the woodwinds contain the distinctive two-note motive at *fortissimo*. The brass texture provides background material with pulsing whole-note chords. The rhythmically unified punctuating woodwind and percussion texture is the primary interest.

**Example 4.6: Grand Pianola Music, Part IA, mm. 292-294.
 Distinctive two-note motive at fortissimo; whole-note pulsing notes in brass.**

The musical score is arranged in a standard orchestral format. The woodwind section (Flutes, Oboes, Clarinets) and the piano part play a two-note motive (G4 and A4) at fortissimo (ff) with accents. The brass section (Bassoons, Horns, Trumpets, Trombone, Tuba) plays whole-note pulsing notes, primarily on G3 and A3. The percussion section includes Crotchet, Triangle, and Tambourine. The piano part features a complex rhythmic pattern in the right hand and a more rhythmic pattern in the left hand, both at fortissimo.

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As Section 4 progresses, the rate at which the two-note motive appears gradually increases to prepare the first dynamic and textural apex at m. 316. Example 4.7 illustrates how the textural density of the woodwind two-note motive expands to include frequent punctuation at m. 300 by the pitched and non-pitched percussion instruments while reducing the length of time between motivic occurrences. Additionally, the brass play a rhythmic variation of the accented two-note motive that mirrors the direction of the original. Whereas the woodwinds contain two marcato-articulated short notes that descend by an octave in pitch, the brass play one long-held note that crescendos to a second short, sforzando note. The interval in the brasses second pitch, rather than being an octave like the woodwinds, is either a second, third, or fourth above the first note. The exception to this is trombone 1, which remains on the same pitch. The rapidly flared sforzando brass dynamic assists with the increase in tension before the first apex.

**Example 4.7: *Grand Pianola Music, Part IA*, mm. 297–301.
Textural expansion to include percussion; brass
contains two-note motive variation. Example omits
pianos.**

The musical score for Example 4.7 shows measures 297-301 of *Grand Pianola Music, Part IA*. The score is arranged in a standard orchestral format with multiple staves. The woodwind section (Piccolo, Flutes, Oboes, Clarinets) plays a melodic line with a two-note motive variation. The brass section (Horns, Trombones) enters with a similar two-note motive, marked with dynamics from piano (p) to fortissimo (ff). The percussion section (Percussion 1, 2, 3) enters with a rhythmic pattern, also marked with fortissimo (ff). The score includes various musical notations such as slurs, accents, and dynamic markings.

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The first of five *forte-fortissimo* apexes occurs near the middle of *Part IA* at m. 316, after seven minutes and fifty-eight seconds into the piece. This apex marks the end of Section 4 and the arrival of Section 5.

Example 4.8: Grand Pianola Music, Part IA, mm. 314-319.
Textural and dynamic apex at the conclusion of
Section 4.

The musical score for Example 4.8, "Grand Pianola Music, Part IA, mm. 314-319," features a complex orchestration. The woodwind section (Flutes, Oboes, Bassoons, Horns, Trumpets, Trombones, and Tuba) and the brass section (Bassoons, Horns, Trumpets, Trombones, and Tuba) are prominent, with dynamic markings ranging from *ff* to *fff*. The percussion section includes a Suspension Cymbal and Ligature B.D. The piano parts (Piano 1 and Piano 2) are marked "(P)da sempre" and feature a dynamic marking of *ff*. The score includes a tempo change to "Sonorously, ♩=132" and a "to Piccolo" instruction. The score is arranged in a standard orchestral format with multiple staves for each instrument.

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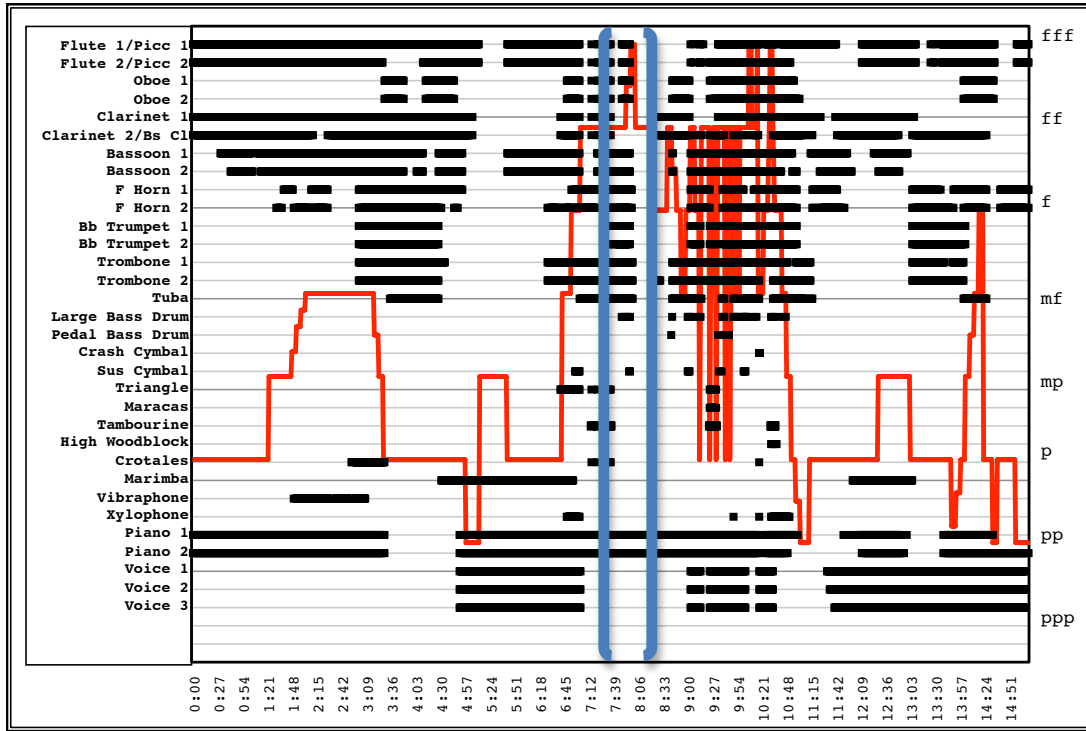
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Figure 4.15: Part IA. Combined Dynamics and Texture Chart. Bracket identifies the first apex of Part IA.



The two sections following the first apex, Sections 5 and 6, are turbulent in their dynamic construction. The dynamic instability in these sections offsets the static harmonic and rhythmic elements. Furthermore, the rapid dynamic changes stand apart from plateau and terraced dynamics used in previous sections.

The static, rhythmic element with dynamic turbulence is particularly evident in Section 6, beginning in m. 363 or at nine minutes and four seconds. The primary compositional device used in this section is

single-note iterations with minimal change in pitch. Harmonic stasis is also evident at m. 379, but is tempered aurally by the more noticeable dynamic fluctuation. The texture's role is secondary to dynamics in this section. However, the punctuating percussion textural addition stands out. Example 4.9 from Section 6 illuminates the rapidly fluctuating dynamics that occur during harmonic and rhythmic stasis.

Example 4.9: Grand Pianola Music, Part IA, mm. 400-407.
Dynamic fluctuation during harmonic and rhythmic stasis in Section 6.

The musical score for Example 4.9, "Grand Pianola Music, Part IA, mm. 400-407," is a full orchestral score. It features multiple staves for various instruments, including Flutes 1 and 2, Oboes 1 and 2, Clarinets 1 and 2 (with Bass Clarinet), Bassoons 1 and 2, Horns 1 and 2, Trumpets 1 and 2, Trombones 1 and 2, and Tubas. The percussion section includes three types of drums (Perc. 1, 2, 3) and suspended cymbals (Sus. Cym.). The piano part is divided into two staves (Pno. 1 and Pno. 2). The score is marked with dynamic levels such as *mf*, *ff*, and *ff* (*sempre staccato*). The piano part is marked *ff* *brilliantly*. The score begins with a *poco* marking and includes a *Sus. Cym.* marking for the percussion section. The piano part includes a *Da Da Da* vocal line and a *Da Da Da* vocal line. The score is marked with *ff* and *ff* (*sempre staccato*) throughout. The piano part is marked with *ff* and *ff* (*brilliantly*). The score includes a *Sus. Cym.* marking for the percussion section. The piano part includes a *Da Da Da* vocal line and a *Da Da Da* vocal line. The score is marked with *ff* and *ff* (*sempre staccato*) throughout. The piano part is marked with *ff* and *ff* (*brilliantly*). The score includes a *Sus. Cym.* marking for the percussion section. The piano part includes a *Da Da Da* vocal line and a *Da Da Da* vocal line.

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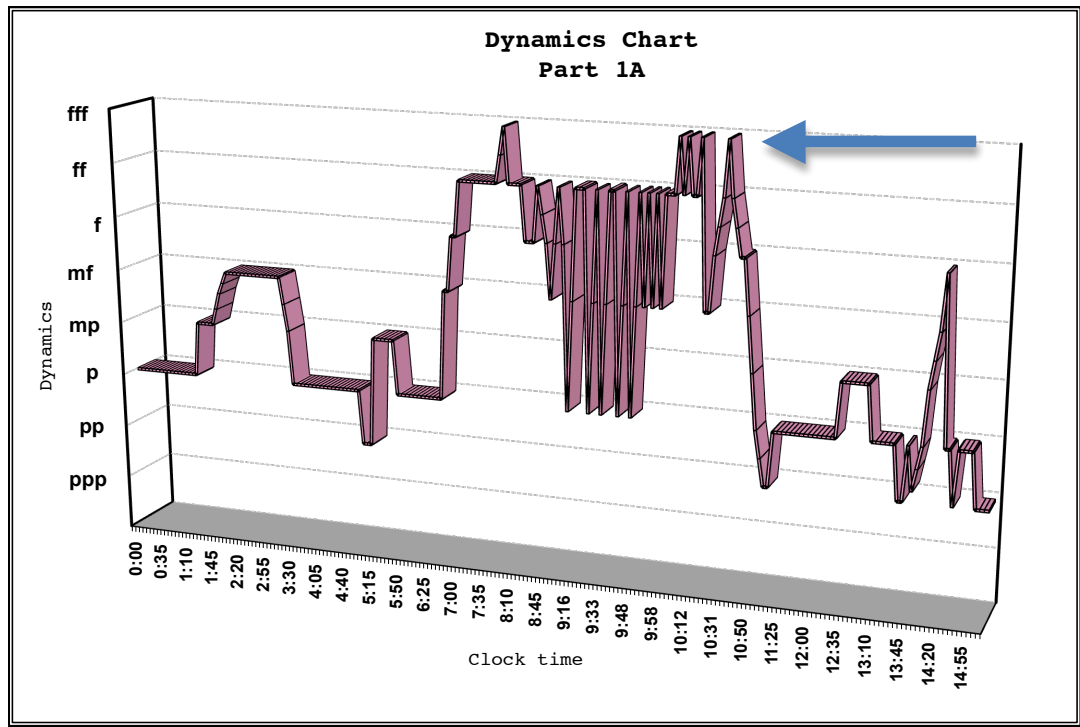
Section 7, beginning at m. 407 and at the ten minute and four-second mark, contains the last four *forte-fortissimo* peaks in *Part IA*. Measures 410-12 include three repeated trombone 1 glissandos from G to A that reach the *forte-fortissimo* peaks. The trombone's single-line gesture projects over the static background material found in the other instruments. The three clustered peaks occurring in rapid succession, combined with the upward direction of pitches, prepare a succeeding climax with yet more impact.

The final and strongest apex in *Part IA* occurs at the ten minute and thirty-two second mark in m. 429. Interestingly, this culminating climax coincides with the Golden Ratio.⁴⁵ According to measure numbers, the exact two-thirds ratio for *Part IA* occurs at m. 436. Measuring in clock time, the Golden Ratio should occur near ten minutes and twenty seconds. The twelve-second difference between the calculations of the Golden Ratio

⁴⁵Dr. Ron Knotts, Mathematics Department at the University of Surrey, UK, "Fibonacci Numbers and The Golden Section in Art, Architecture, and Music," <http://www.maths.surrey.ac.uk/hosted-sites/R.Knott/Fibonacci/fibInArt.html#muslinks> (accessed June 12, 2010).

and where the actual event occurs is nominal for a work of this length.

Figure 4.16: Part IA. Dynamics Chart. Golden Ratio and final apex of Part IA.



The final peak marks the start of Section 8. This powerful moment is preceded by a crescendo in C-sharp diminished chords found in the piano and woodwind static quarter-note iterations as well as accented, sustained brass notes. The second-inversion E minor vocal triad supports the harmony without any crescendo. However, the chord soon expands from triadic to quintal harmony, by the highest voice shifting upward from G to B.

The inclusion of percussion and expansion of texture to utilize almost all the forces at m. 429 marks the beginning of Section 8. The piece's strongest climactic point is further strengthened and extended by the powerful entrance at m. 431 of the lowest colors in the ensemble, including punctuation by the bass drum. Example 4.10 illustrates the texture and dynamics at the strongest apex.

Example 4.10: Grand Pianola Music, Part IA, mm. 426-431.
Golden Ratio and final apex of Part IA.

(picc.) ♩ = 132-138

426

Fl. 1 (sempre staccato) *ff*

Fl. 2 (sempre staccato) *ff*

Ob. 1 (sempre staccato) *ff*

Ob. 2 (sempre staccato) *ff*

Cl. 1 (sempre staccato) *ff*

Cl. 2 (sempre staccato) *ff* (Bs. Cl.)

Bsn. 1 (sempre staccato) *ff*

Bsn. 2 (sempre staccato) *ff*

Hn. 1 *ff*

Hn. 2 *ff*

Tpt. 1 *ff*

Tpt. 2 *ff*

Tbn. 1 *ff*

Tbn. 2 *ff*

Tba. *ff*

Perc. 1 (High W. Bk.) *sim.*

Perc. 2 (Xyl.) *ff* *sim.*

Perc. 3 (Tamb.) *ff* *sim.* (L.g. B.D.) *ff*

3 Women's Voices Nah. Nah.

Pno. 1 *ff*

Pno. 2 *ff*

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The full, dramatic impact of the two-minute dynamic and textural build-up to the final apex is realized by the listener in retrospect. In the minute of clock time following the climax, the instrumentation is gradually reduced to three pairs of timbres with two distinct textural lines by m. 472. The flutes and bassoons continue iterated quarter notes while the horns play sustained notes as background texture. Additionally, the dynamics continuously decrease through every increment from *forte-fortissimo* at the peak to *pianissimo* at m. 471.

Figure 4.17: Part IA. Combined Dynamics and Texture Chart. Bracket illustrates decrease in dynamics and texture after the final apex.

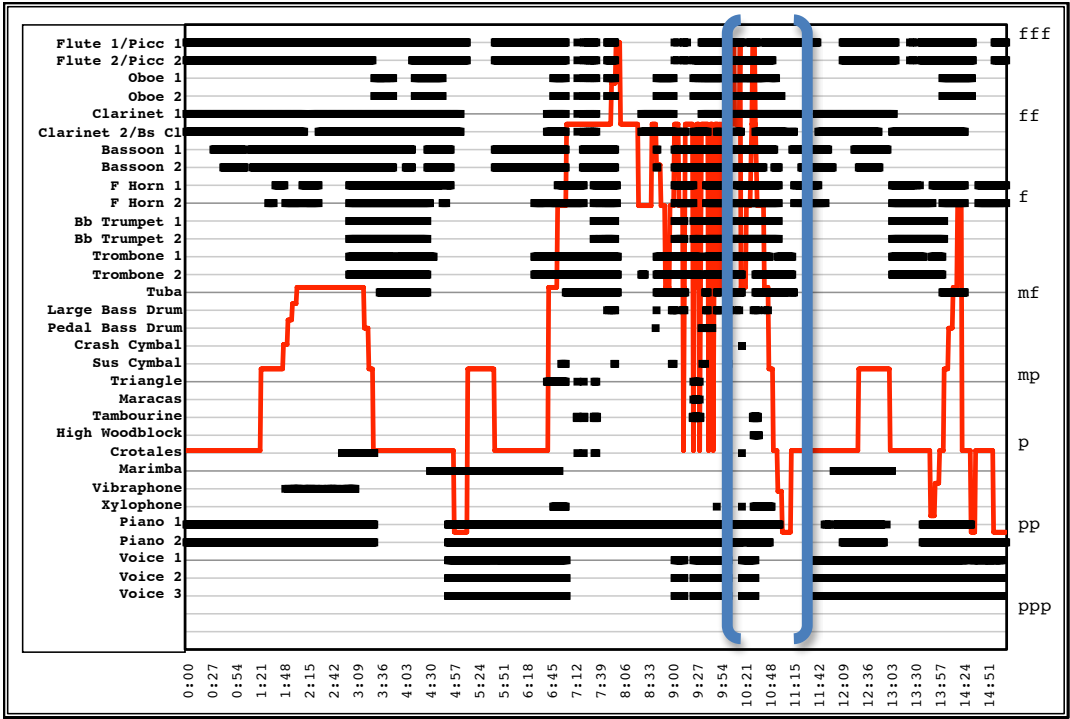


Figure 4.11 illustrates the textural and dynamic low point at m. 471 or eleven minutes and eight seconds.

Example 4.11: *Grand Pianola Music, Part IA*, mm. 468–473. Reduction of dynamics and texture after the final apex.

The musical score for Example 4.11 shows measures 468 to 473. The score is divided into two systems. The first system (measures 468-470) features a texture of same-note iterations in the woodwinds. The second system (measures 471-473) shows a reduction in dynamics and texture. The woodwinds (Flutes, Clarinet, Bassoons) play staccato notes, while the Horns play muted notes. Dynamics are marked as *p*, *pp*, *mp*, and *pp*.

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After the descent from the apex, the same-note iterations, found in the pairs of flutes and bassoons at m. 471, become the dominant texture used until the conclusion of *Part IA*. During the decrease from the final apex at m. 429 to the dynamic and textural low at m. 471, the long-held notes found at the foreground in the brass gradually trade places with the same-note iterations. The return of the iterating texture to the foreground recalls the similar character found in the oscillations at the very beginning of the piece. Combined with occasional variations of sustained chords,

the woodwind iterations expand to different timbres, including the marimba at m. 500 and almost all brass and voices at m. 551.

The woodwind iterations are passed to the tutti brass, excluding the tuba, at m. 551. The entrance of the brass timbre is a striking change, due to their absence from the score for approximately two minutes. The Harmon mute brass color combined with a dynamic decrease without any sustained chords signals the progression to Section 10 at m. 551, or thirteen minutes and six seconds. Additionally, the vocable in the voices changes from the previous soft "Nô," pronounced "Noo," to a more firmly staccato-articulated "Dut," which closely blends with the brass and woodwind articulations. Example 4.12 demonstrates this change to Section 10.

**Example 4.12: Grand Pianola Music, Part IA, mm. 548-553.
Section 10 beginning defined by tutti brass and
vocal texture and decrease in dynamic.**

The musical score for Example 4.12, Grand Pianola Music, Part IA, mm. 548-553, is presented in a multi-staff format. The instruments and parts included are:

- Fl. 1 and Fl. 2: Flutes, marked *(sempre staccato)*.
- Cl. 1 and Cl. 2: Clarinets, marked *(sempre staccato)*.
- Hn. 1 and Hn. 2: Horns, marked *p* and *sempre staccato*.
- B. Tpt. 1 and B. Tpt. 2: Trumpets, marked *p* and *sempre staccato*.
- Tbn. 1 and Tbn. 2: Trombones, marked *p* and *sempre staccato*.
- Mar.: Mallets, marked *(Mar.)*.
- 3 Women's Voices: Vocal parts, marked *Dut* and *p*.

The score is marked *(sempre staccato)* throughout. The dynamic marking *p* (piano) is indicated at the beginning of Section 10 (mm. 548-553). The vocal parts feature a rhythmic pattern of 'Dut' notes.

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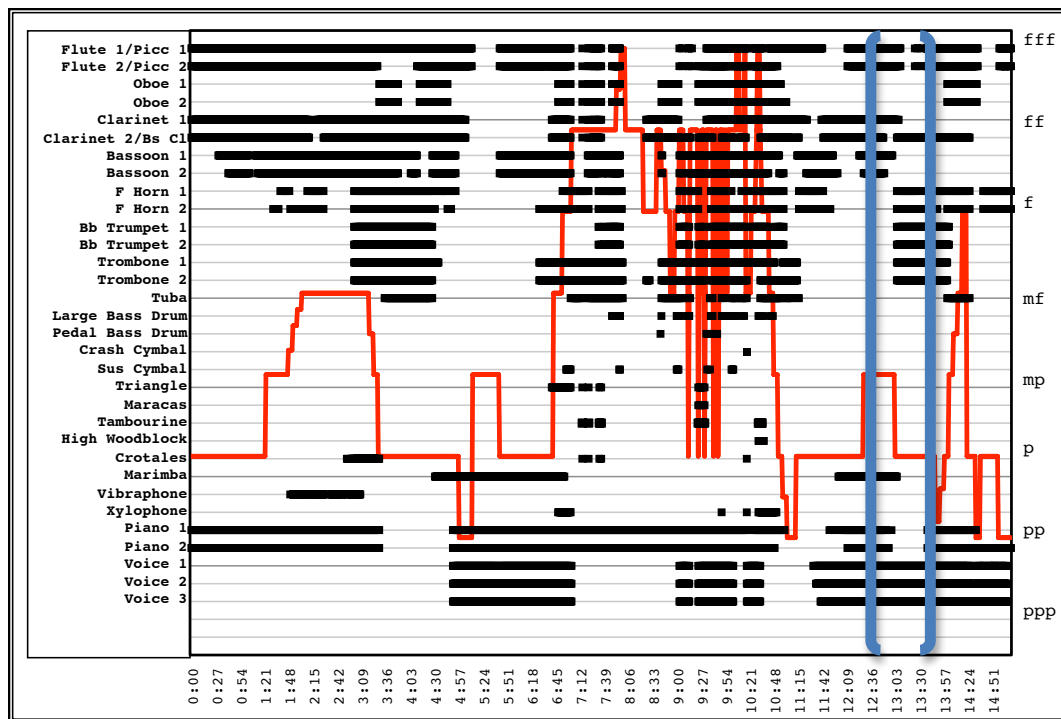
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The decrease in dynamics from Section 9 to Section 10, with the expansion of textural density allows one identifiable line to have a greater impact. Figure 4.18 illustrates shifting of the iterations to brass that corresponds to a dynamic change from *mezzo-piano* to *piano*. The thicker texture of brass offsets the dynamic reduction to create a more seamless effect.

Figure 4.18: Part IA. Combined Dynamics and Texture Chart. Bracket reveals a thicker texture including a return of brass with a softer dynamic.



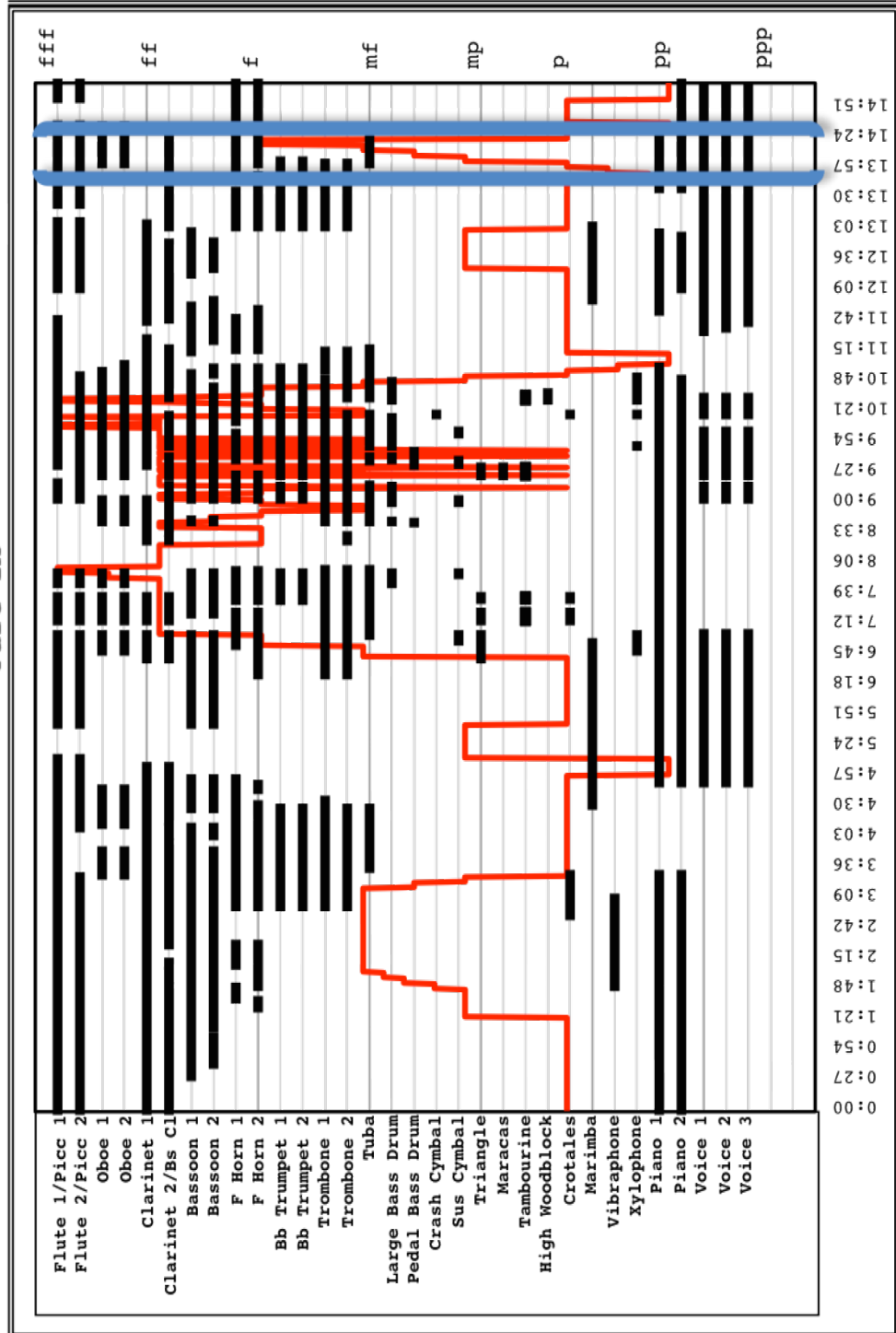
The rhythmic quarter-note iterations first stated in the brass continue to expand to more timbral colors. At the start of Section 11, at fourteen minutes and two seconds or m. 598, the tutti brass and voices are replaced with pairs of flutes, oboes, horns and single instruments of the bass clarinet and tuba. The vocables transition to "Ah" on an A augmented triad in root position, where the top voice E-sharp moves up by intervals of major and minor seconds to an A. However, other than the upper voice movement, there is little

change in the other harmonic and rhythmic elements. The result statically suspends the listener.

While the mesmerizing iterations maintain steady energy from previous sections, the registral, harmonic, and rhythmic stasis creates a numbing effect on the listener. To contrast the stasis, dynamics without the aid of texture, provide a final increase in energy to *forte* at fourteen minutes and twenty seconds or m. 613. The *forte* peak is a distant dynamic after-shock reminding the listener of the powerful climactic moment almost four minutes earlier. Figure 4.19 and Example 4.13 illustrate the described important stylistic feature of focusing the listener on dynamics, while eliminating the impact of all other compositional elements.

Figure 4.19: Part IA. Combined Dynamics and Texture Chart. Defined area reveals dynamic increase with textural stasis.

Combined Dynamics and Texture Chart
Part IA



**Example 4.13: *Grand Pianola Music, Part IA*, mm. 611–614.
Use of dynamics while all other elements remain unchanged.**

The musical score for Example 4.13, measures 611-614, illustrates a dynamic shift across multiple instruments. The score includes staves for Flute 1 and 2, Oboe 1 and 2, Clarinet 2, Horn 1 and 2, Trombone, 3 Women's Voices, Piano 1, and Piano 2. The key signature is three sharps (F#, C#, G#) and the time signature is 3/8. The tempo is marked 'sempre staccato'. The dynamics change from *f* (forte) to *p* (piano) in measures 612 and 613 for the woodwinds and brass. The piano parts (Pno. 1 and Pno. 2) maintain a consistent *f* dynamic throughout the passage.

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After the last rise in dynamics in Example 4.13, Adams gradually reduces both the dynamic level and the textural density to the end of *Part IA*. The texture of Section 12, beginning at m. 629 or fourteen minutes and

thirty-six seconds, decreases to two distinct lines comprised of quarter-note iterations in only the pianos and sustained chords found in pairs of piccolos, horns, and the women's voices. The last texture contains pairs of three timbres, just as the work started. The final dynamic is *pianissimo* in all parts. Example 4.14 and Figure 4.20 illustrate the concluding dynamics and texture of *Part IA*.

**Example 4.14: *Grand Pianola Music, Part IA*, mm. 653–659.
Use of textural dissipation to conclude *Part IA*.**

The image shows a musical score for Example 4.14, which is the concluding section of Part IA of John Adams' *Grand Pianola Music*. The score is written for six parts: Flute 1 (Fl. 1), Flute 2 (Fl. 2), Horn 1 (Hn. 1), Horn 2 (Hn. 2), 3 Women's Voices, and Piano 2 (Pno. 2). The music is in 3/4 time and begins at measure 653. The flute parts are marked *(Picc.)* and play sustained chords. The horn parts play sustained chords with a *+* marking above the notes. The women's voices part is marked *pp* and features a vocal line with the syllable "Ah" and a fermata over the final measure. The piano part consists of a dense texture of sustained chords. The score concludes with a double bar line and a fermata over the final measure.

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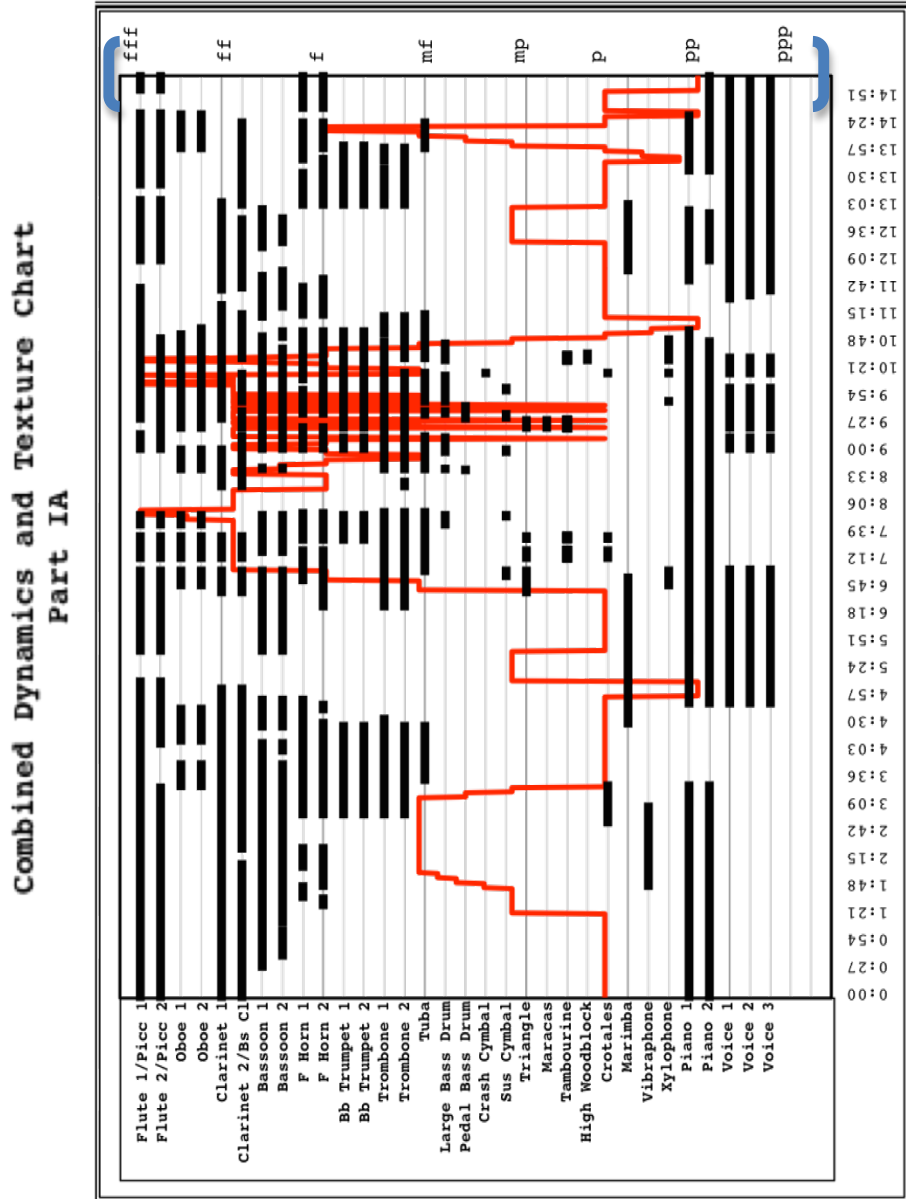
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Figure 4.20: Part IA. Combined Dynamics and Texture Chart. Bracket illustrates the reduction of dynamics to *pianissimo* and texture to three timbres.⁴⁶



⁴⁶ Due to the compression of data in the chart, the ending of the voices touches the last vertical line while the three remaining timbres extend slightly past the ending line.

PART IB: DYNAMICS AND TEXTURE

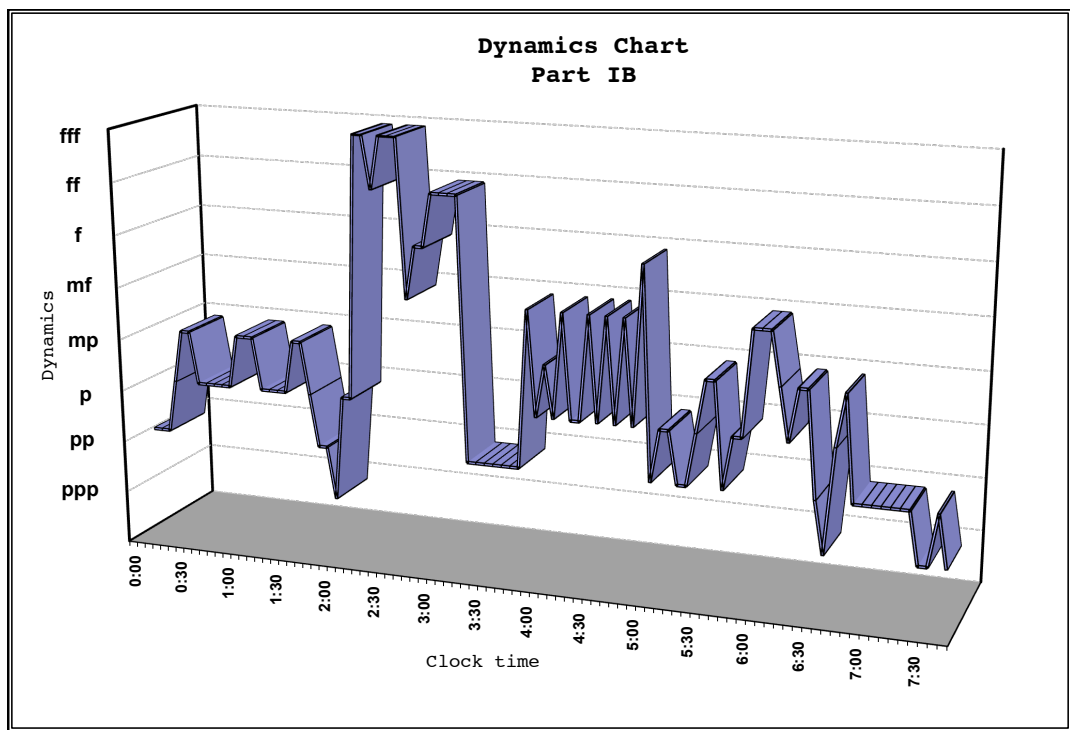
Part IB begins at m. 660 with overlapping voices from *Part IA* and is identified aurally by the cessation of quarter-note iterations and oscillations, decreased textural density, and a slower tempo.

The unifying link between the end of *Part IA* and the Introduction of *Part IB* is sustained harmonic chords, which replace the iterating patterns with the same F-sharp minor triad in second inversion. Six occurrences of three-note chords further unify the movements. However, their rhythmic placement on anacrusis or weak beats creates cadential uncertainty. Measures 668-71 contain the movement's first downbeat chordal alignment with seven instruments playing a simultaneously, creating a moment of repose in contrast to the earlier rhythmic instability. The striking character of the aligned blocked chords recalls Stravinsky's chorale for Debussy found in the last section of *Symphonies of Wind Instruments*. It is

important to note this since Adams references his own eclectic influence from many composers.⁴⁷

In comparing the dynamic use between *Part IA* and *Part IB*, one can see that dynamic stasis in *Part IB* is rare. The increase in dynamic frequency counteracts the reduction of pulse energy in the slower tempo of *Part IB*. Figure 4.21 illustrates dynamic change while also revealing fewer plateaus of dynamic stasis than in *Part IA*.

Figure 4.21: *Part IB*. Dynamics Chart. Frequent changes in dynamics with fewer plateaus of dynamic stasis than *Part IA*.



⁴⁷ John Adams' Personal Website, "Grand Pianola Music," <http://www.earbox.com/W-grandpianola.html> (accessed July 28, 2009).

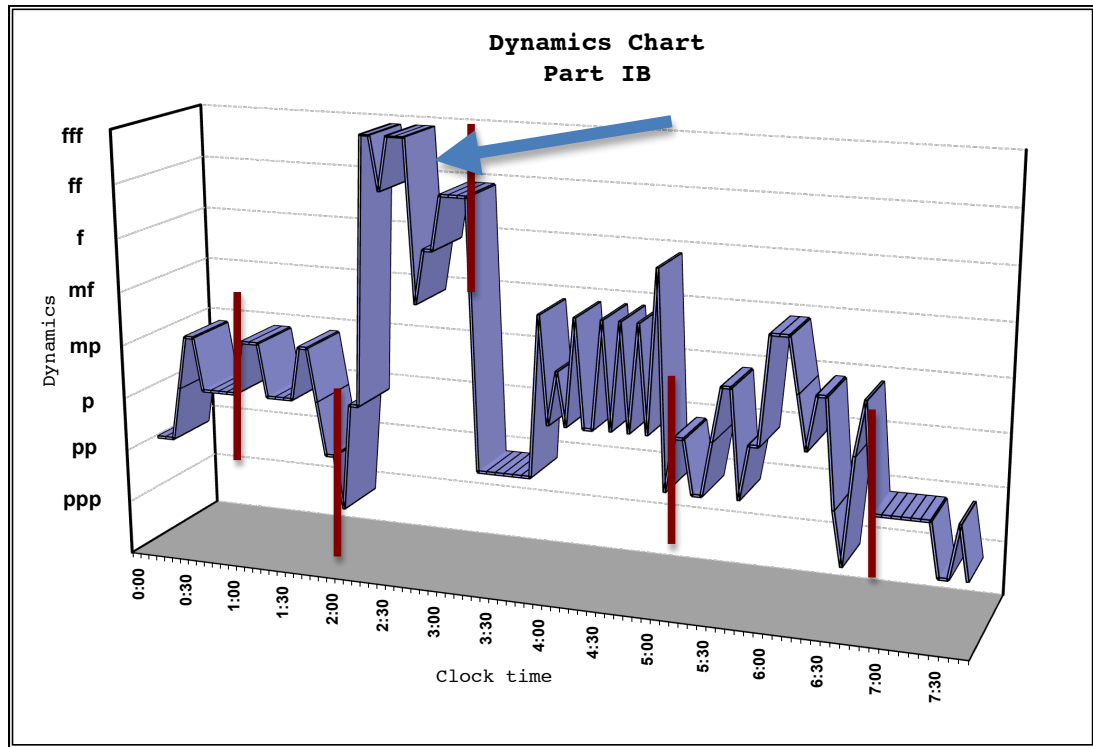
In addition to the more frequent dynamic fluctuation, the apex of *Part IB* in contrast to *Part IA*, occurs near the inverted proportion of the Golden Ratio.⁴⁸ The calculated placement of the inverted Golden Ratio, occurring at the beginning one-third portion of *Part IB*, occurs at two minutes and forty-six seconds. The actual final peak before the following descent occurs at two minutes and thirty-three seconds, or thirteen seconds earlier than the mathematical inverted Golden Ratio.

The apex starts at two minutes and eight seconds, mm. 694-695, eight seconds after beginning the B section. The apex maintains its intensity for twenty-five seconds, with a quick decline to *fortissimo* and rebuild to *forte-fortissimo* lasting two seconds. The length of the apex feels substantially longer due to the full textural density, absence of rhythmic complexity, and long note-lengths with pitch suspension. Thirty-four seconds after the start of the B section, the movement gradually decreases in dynamics to a conclusion. Figure

⁴⁸ Inverted Golden Ratio refers to the apex occurring after one-third of the movement has passed, rather than a standard Golden Ratio occurring after two-thirds of the movement has passed.

4.22 indicates the apex with succeeding decline in dynamics through formal sections to the conclusion.

Figure 4.22: Part IB. Dynamics Chart with defined Sections. Final apex marked by an arrow near the middle of the B section with implied descent to the end.



The accented, sustained tutti chords occurring at the peak are especially powerful due to the *forte-fortissimo* dynamic combined with punctuations by the sparsely used bass drum. The tutti accented chords oscillate at a slow pace, in reference to the much quicker oscillations in *Part IA*. The changing pitch in the chord oscillations that begins in m. 697 is found in

the pairs of clarinets, trumpets and pianos, and in the single instruments of flute 2, oboe 1, and tuba. All other instruments remain on the same pitch. The oscillations continue to m. 702.

**Example 4.15: *Grand Pianola Music, Part IB*, mm. 693–698.
Tutti chords with dynamic and textural density change.**

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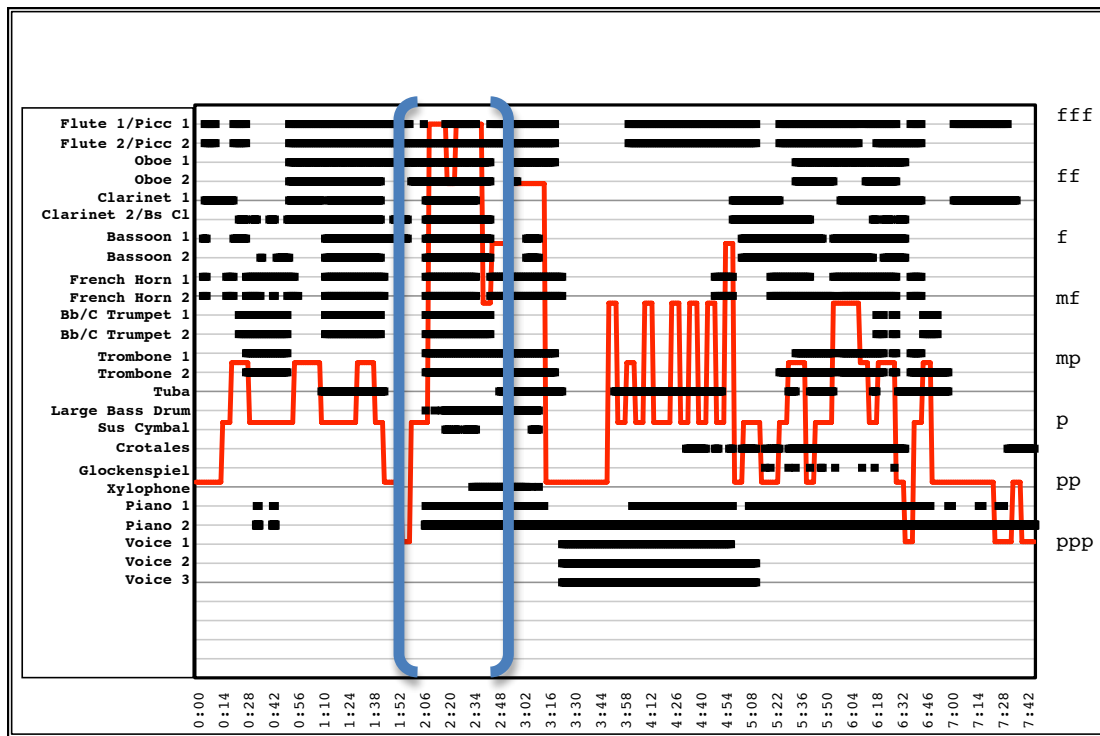
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Preceding the highest apex and assisting in its framing, is a spinning out⁴⁹ melodic oboe solo lasting over a minute in the A section. The solo is accompanied by thinly scored parts remaining dynamically below *mezzo-piano*. The constant seeking character of the solo, represented by a repeated restarting ascending figure in the oboe solo, directly contrasts with the upcoming section of forceful dynamics and texture. The bracketed portion in Figure 4.23 demonstrates the B section's sudden dynamic rise combined with strong instrumental forces. It is important to note the aligned rhythmic entrance of instruments preceded by silence.

⁴⁹ Don Michael Randel, ed., *The Harvard Dictionary of Music*, 4th ed. (Cambridge: The Belknap Press of Harvard University Press, 2003), s.v. "Melody." Spinning out a melody occurs when a figure changes its configuration to make the experience more memorable. In the case of the oboe solo in *Part IB*, each time the melody renews itself and begins again, the note groupings change from two, three, or four notes while also manipulating the rising pitches by major and minor seconds. For example, the first iteration of the melodic figure begins by containing an E-natural in m. 675. The melody's third iteration contains an E-sharp by m. 680.

Figure 4.23: Part IB. Combined Dynamics and Texture Chart. Bracket illustrates the highest apex found of B section with almost full orchestration and *fff* dynamic.



Following the movement's climactic apex in the B section, dynamics decline and texture is reduced to a four-note tuba solo that permeates section C beginning at m. 719 or three minutes and fifty-three seconds. Adams describes the tuba solo as "a grazing tuba" in a "slow, serene pasture."⁵⁰ The three women's voices with pairs of flutes and pianos provide background harmonic

⁵⁰ John Adams' Personal Website, "Grand Pianola Music," <http://www.earbox.com/W-grandpianola.html> (accessed July 28, 2009).

support in timbral and registral contrast to the heavier character of the tuba. The voices, singing with the vocables "oo" for the entire C section, make their only appearance in the movement.

A unique feature of this section is the wide ambitus of the nineteen-measure tuba solo, which provides a distinctive solo color to the passage. With languorously rising leaps and falls revealing oscillating D-sharp and E pitches in octave displacement, the tuba further expands on searching character of the earlier oboe solo. The tuba solo explores expressive dynamics from *piano* to a peak of *mezzo-forte*, while the accompaniment in pairs of flutes and pianos, with the trio of women's voices, remain dynamically static below *piano*.

Example 4.16 illustrates the tuba solo with wide ambitus and fluctuating dynamics.

**Example 4.16: *Grand Pianola Music, Part IB*, mm. 719–737.
Tuba solo with wide ambitus and fluctuating dynamics.**

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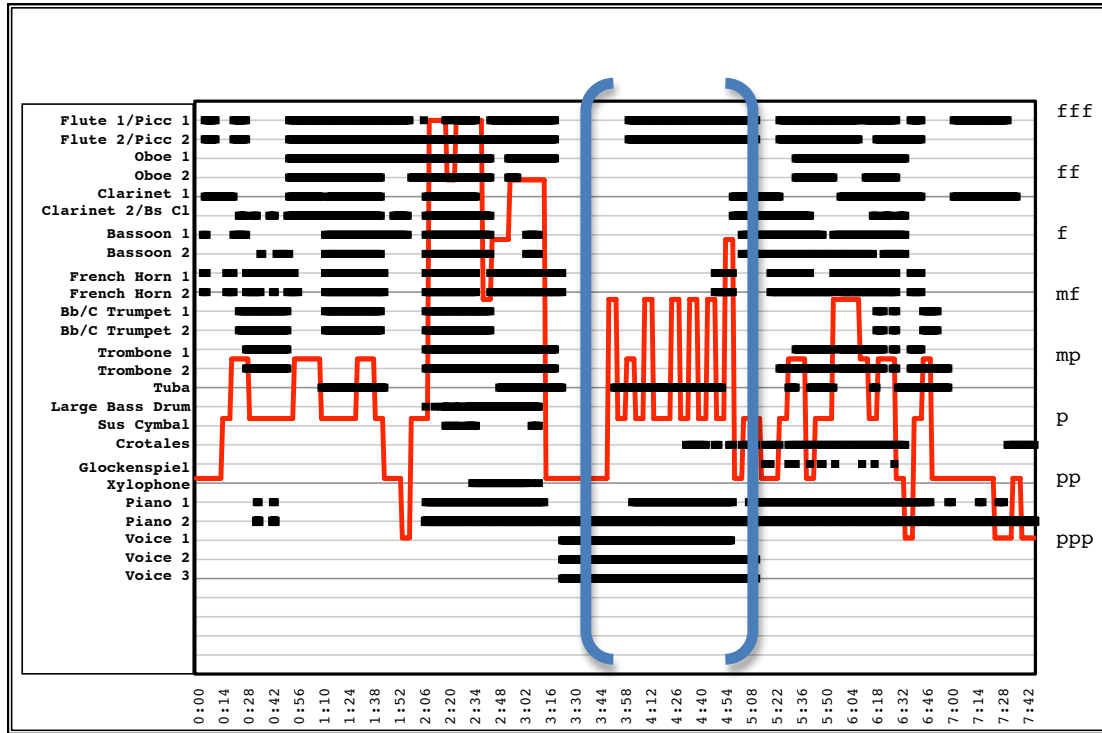
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The individually expressive dynamics in the tuba solo mimic the turbulent dynamic fluctuation previously found in Sections 5 and 6 of *Part IA*. However, the approaches to how dynamics are applied to the orchestration in the turbulent sections differ from *Part IA* to *Part IB*. In *Part IB*, the tuba solo is the only timbre out of five containing the dynamic turbulence whereas all eight or more timbres contain the fluctuation in *Part IA*. See Example 4.9 and 4.13 for *Part IA* examples.

Figure 4.24 illustrates dynamic fluctuation that looks similar on a dynamic chart to the previous examples in *Part IA*. However, closer examination reveals the tuba line exists as a reflective soliloquy in one linear melodic instrumental line.

Figure 4.24: Part IB. Combined Dynamics and Texture Chart. Bracket illustrates fluctuating dynamics of the tuba solo with reduced accompaniment texture.



The A' section at m. 743, or at the five minute and eight-second mark, demonstrates similar dynamic shaping and textural density to the beginning of *Part IB*. While the pitch and rhythmic material in A' does not exactly replicate material found in A, several elements regenerate to signal return. First, the oboe solo appears in both locations with similar melodic construction. Additionally, the dynamic structural shape of the two sections is similar, even though dynamic expansion occurs in A'. An expansion to louder and

softer dynamics is perhaps due to A' being approximately double the length of A. The A section is one minute and eight seconds in length, while the A' section is one minute and fifty-two seconds. Finally, the textural expansion in A' includes melodic percussion consisting of bowed crotales and struck glockenspiel, pianos, and muted trombones. All four added timbres provide additional harmonic support to the existing harmony. While textural density is similar, there is more irregular use and expansion of the instrumental texture in A' than in A.

Figures 4.25 and 4.26 illustrate the similarities in dynamic shape and textural density between the A and A' sections.

Figure 4.25: Part IB. Dynamics Chart with sections outlined. Brackets illustrate the similar dynamic shape of the A section and A' section.

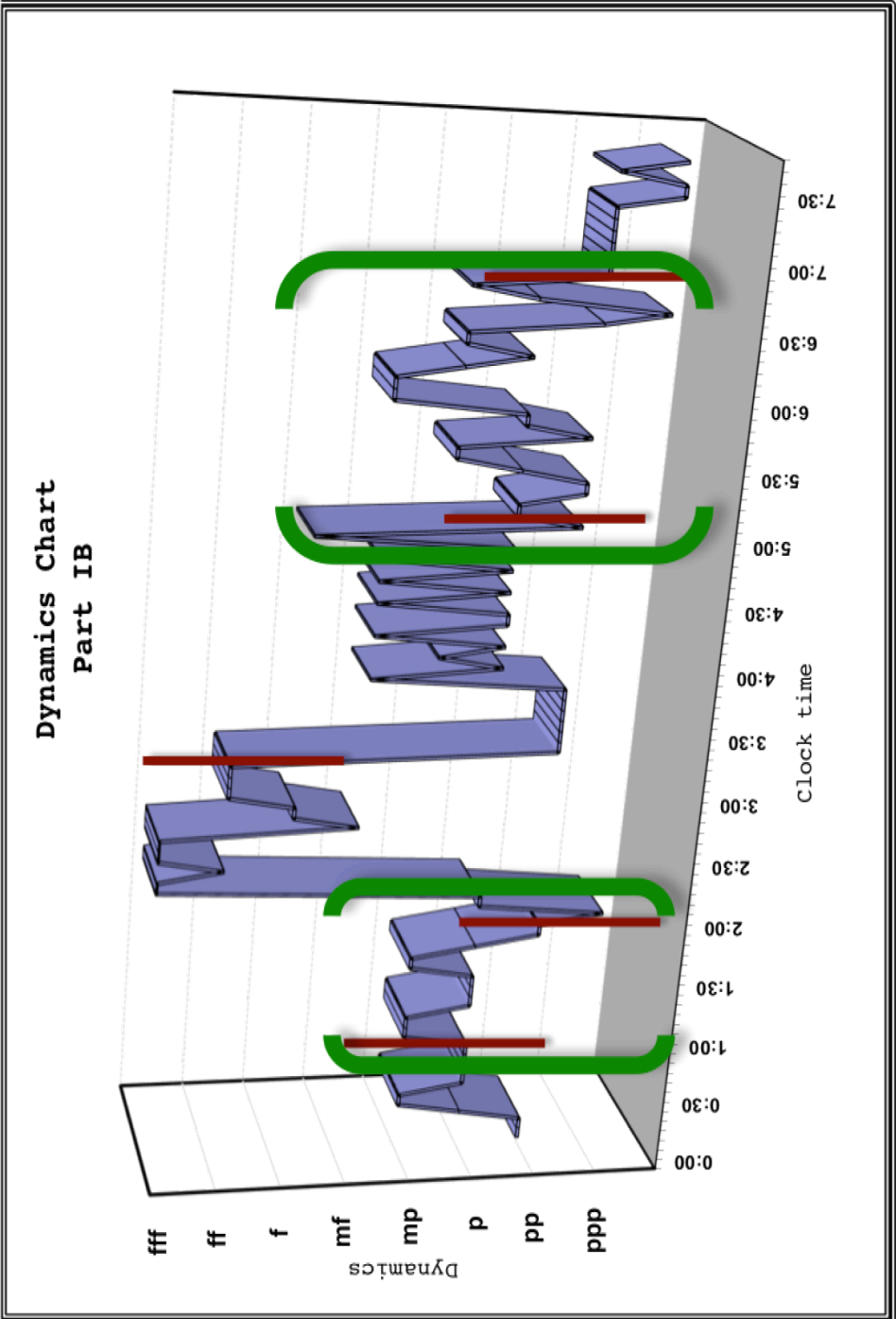
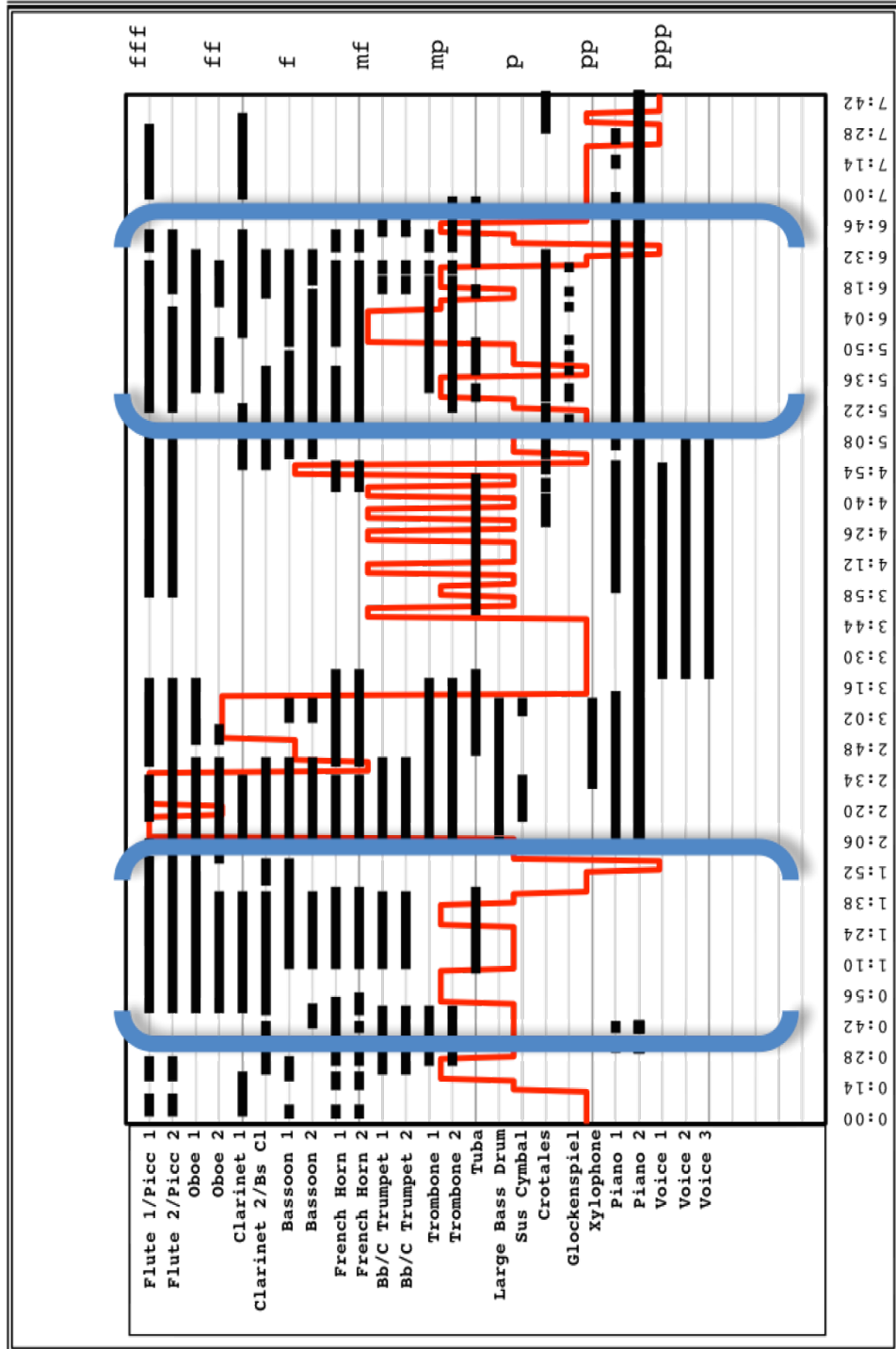


Figure 4.26: Part IB. Combined Dynamics and Texture Chart. Brackets illustrate similar texture combined with dynamic shape in the A section and A' section.

Combined Dynamics and Texture Chart
Part IB



Part IB closes with a dynamic of *piano-pianissimo*, one level softer than the opening's *pianissimo*. The concluding dynamic completes the movement's architectural shape that gradually declines after the apex in section B. Furthermore, the peaceful finality sensitively fits the overall reflective character of *Part IB*.

Additionally, the texture at the closing of the movement is similar to the beginning. In the opening, the pairs of flutes and horns with single lines of the clarinet and bassoon comprise the texture. At the closing, the pairs of pianos and single lines of the flute, clarinet, and crotales close the last ten seconds of the movement. The final timbre decreases to only the second piano playing a G-sharp minor seventh chord with the fifth omitted.

As seen in Example 4.17, the repeated, arch-shaped slurred passages in the flute and clarinet, combined with a decrease in dynamics, assist in closing the movement. The lingering upward-rising first piano part provides a reflective quality, while the second piano material recalls the searching element presented earlier by the oboe and tuba solos. The flute and clarinet

finish in an upward gesture, softening the timbral ascension by the first piano. The last G-sharp minor seventh chord, anchored by a G-sharp appearing as the lowest note sounded in twenty-three seconds, provides peaceful closure to the movement. The last sounds conclude nearly twenty-three minutes of music, or approximately three-fourths of the total clock time for *Grand Pianola Music*.

**Example 4.17: *Grand Pianola Music, Part IB*, mm. 771-783.
Decrease in dynamic and texture to close *Part IB*.**

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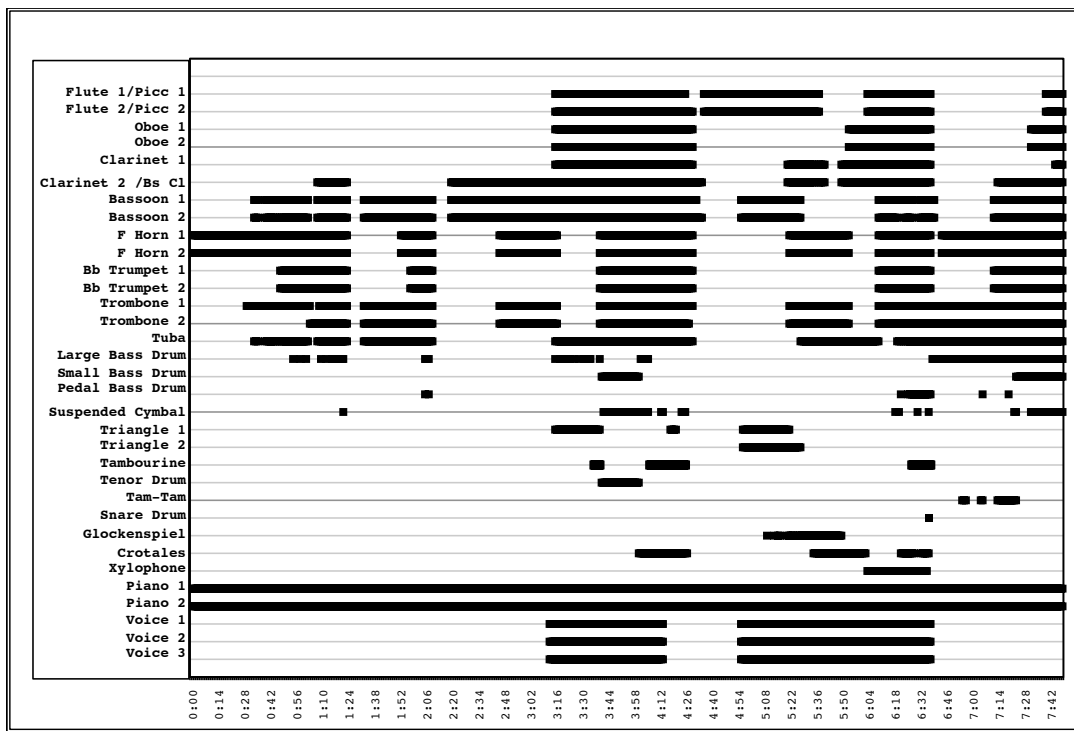
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ON THE DOMINANT DIVIDE: DYNAMICS AND TEXTURE

Dynamics and texture again play a significant role in the formal structure of the third movement, *On the Dominant Divide*. However, texture is more rhythmically

aligned than in *Part IA* and *Part IB*. Orchestration forces occur more frequently in pairs of timbres, with punctuation by the percussion. Additionally, *On the Dominant Divide* is the only movement in which the pianos play continuously. Their continuing timbral presence functions as a bridge between sections. Figure 4.27 illustrates the aligned block texture entrances and pairing of homogenous timbres.

Figure 4.27: *On the Dominant Divide*. Texture Chart.

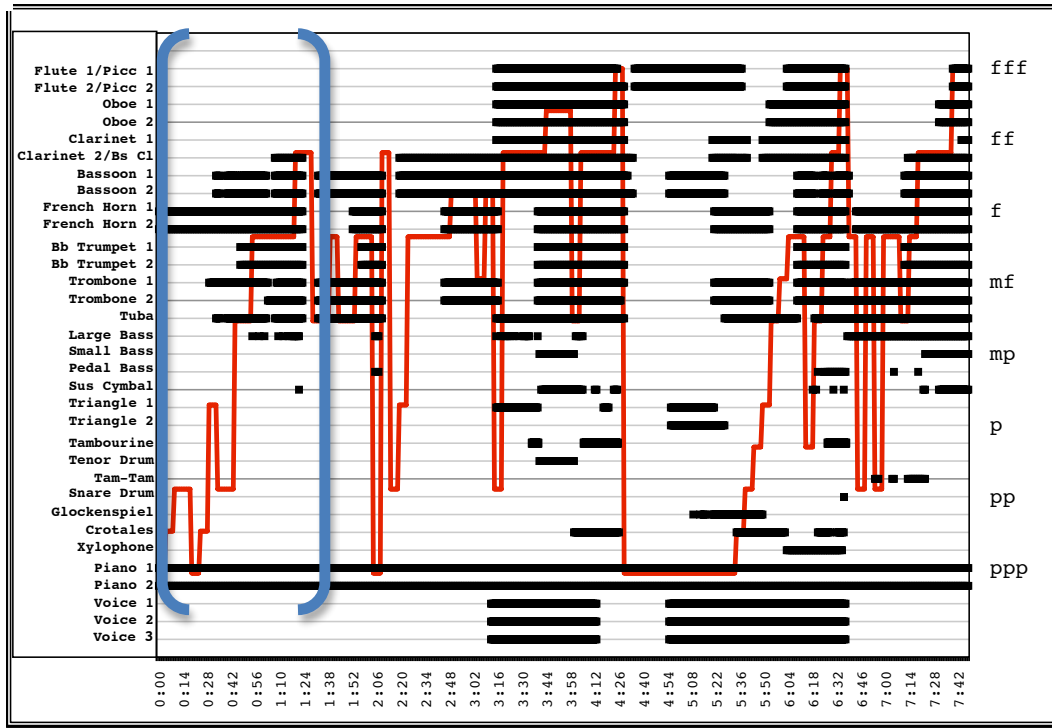


Dynamic peaks in the movement are proportioned differently than in earlier movements. In *Part IA* the apexes appear in the middle of the movement. In *Part IB*

the single apex occurs nearer the beginning. In contrast, the three highest points of *forte-fortissimo* in *On the Dominant Divide* occur in the last third of the movement, projecting energy and momentum to the very end of the piece.

The *pianissimo* beginning dynamic in *On the Dominant Divide* builds to one minute and twenty-two seconds reaching a *fortissimo* peak in m. 62. The unique feature of this particular gradual dynamic increase is that it contains no significant texture change. Rather than crescendoing by adding more orchestration, the existing instrumental texture collectively increases in volume. The collective instrumental choir is joined by the punctuating bass drum accents, glissando effects in trombone 1, and rolled suspended cymbal to conclude Section 1. Figure 4.28 reveals the dynamic growth at the opening of the movement with minimal textural increase.

Figure 4.28: *On the Dominant Divide*. Combined Dynamics and Texture Chart. Bracketed portion illustrates the dynamic increase with minimal change in texture.



Section 1 recalls elements from *Part IA*. The pianos, which oscillate at eighth-note repetitions rather than quarter notes, the same-note iterations and sustained pitches with dynamic flares, and the trombone glissandos are all material from *Part IA*. However, these elements, which were disbursed throughout different sections of *Part IA*, combine for simultaneous presentation. Example 4.18 illustrates simultaneous use of previously presented material that dynamically fluctuates to an increase marking Section 2.

Example 4.18: *Grand Pianola Music*, On the Dominant Divide, mm. 58-62. Return of previous elements; texture remains the same while dynamics build to the first of the smaller apices and Section 2.

The image displays a page of a musical score for 'Grand Pianola Music', specifically the section 'On the Dominant Divide' (measures 58-62). The score is arranged in a standard orchestral format with multiple staves. The instruments included are:

- Woodwinds:** Clarinet 1 (Cl. 1), Bassoon 1 (Bsn. 1), Bassoon 2 (Bsn. 2), Horn 1 (Hn. 1), Horn 2 (Hn. 2), Trumpet 1 (Tpt. 1), and Trumpet 2 (Tpt. 2).
- Brass:** Trombone 1 (Tbn. 1), Trombone 2 (Tbn. 2), and Trombone 3 (Tbn. 3).
- Percussion:** Percussion 1 (Perc. 1) and Percussion 3 (Perc. 3).
- Piano:** Piano 1 (Pno. 1) and Piano 2 (Pno. 2).

The score features various dynamic markings such as *p*, *fp*, *f*, *ff*, *sim.*, *p subito*, *f*, *ff*, *pp*, *ppp*, and *cresc.*. It also includes performance instructions like *ppoco f*, *ppoco sf*, and *ppoco sfz*. The notation includes slurs, ties, and articulation marks. The key signature is one flat (B-flat major/D minor), and the time signature is 4/4.

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Additionally, the dialectic tension in long-notes a half step apart in the horns, at m. 35, recall the long note, half-step tension at the beginning of *Part IA*.

However, the work is propelled forward by material not from the beginning of *Part IA*, but from the forty-two second area where the bassoons alternate in pushing a D upward to E-flat. By starting at this late point, the music more urgently develops the drama.

Just as the previous example from Section 1 illustrates simultaneous use of three compositional ideas, Section 2 also combines material. However, the material beginning at m. 61 is stratified into two ideas. The piano eighth-note oscillations appear in one texture with winds shouting dramatic gestures in the other. The similarity in construction to Example 4.6, 4.9, and 4.13 from *Part IA* are evident. Example 4.19 illustrates the unified simultaneously stated elements derived from *Part IA*.

Example 4.19: Grand Pianola Music, On the Dominant Divide, mm. 82-86. Combination of elements derived from Part IA.

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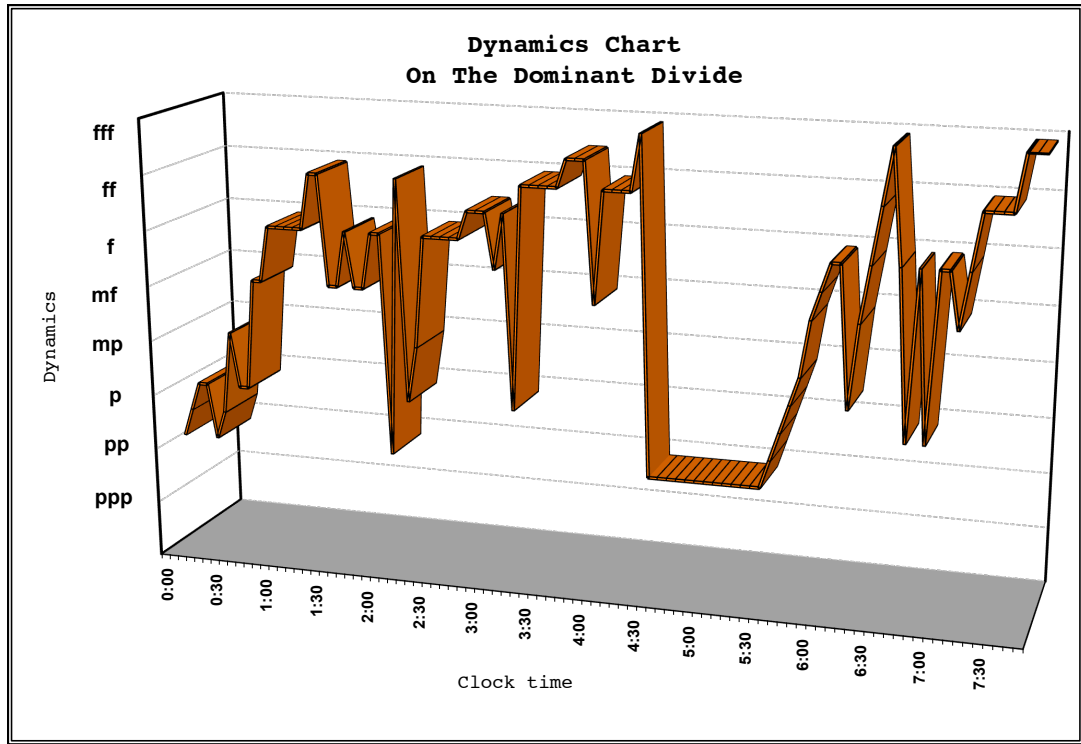
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In contrast to the soft dynamic levels explored in *Part IA* and *Part IB*, dynamic levels in this movement remain at *mezzo-forte* or louder the majority of the time. An occasional dynamic decline creates a break from which to again increase. Figure 4.29 illustrates the dominant use of upper level dynamics.

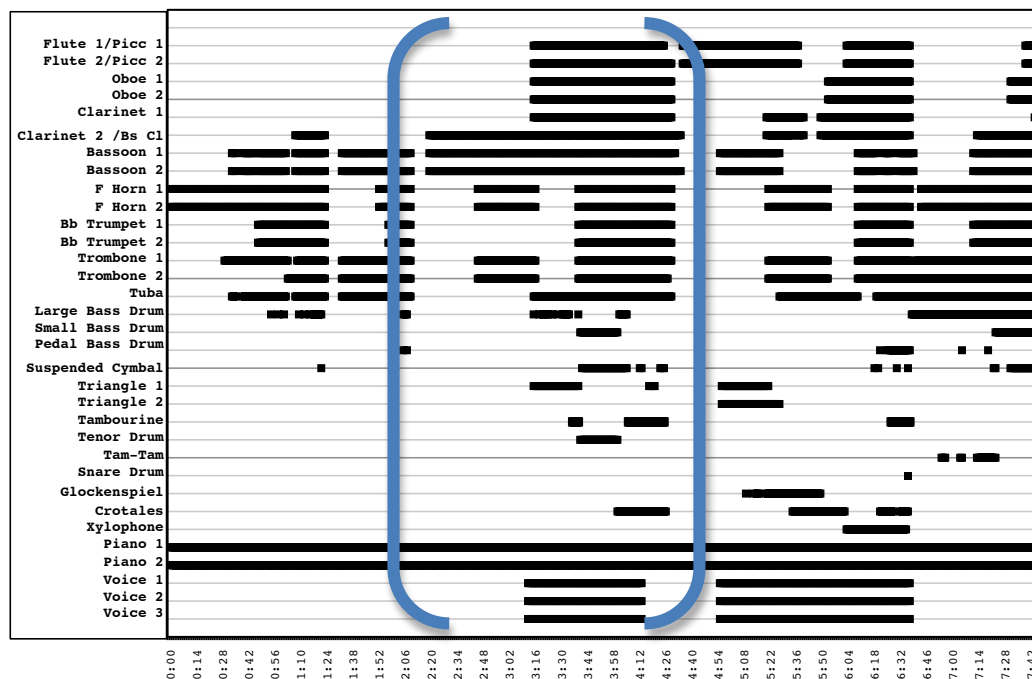
Figure 4.29: *On the Dominant Divide*. Dynamics Chart.
 Dynamics above *mezzo-forte* occur a majority of the time.



After a dynamic peak at m. 94, the volume quickly dissolves to *piano* while the texture is reduced to only the piano by m. 96, at two minutes and ten seconds. The beginning of Section 3, at two minutes and eight seconds, marks the beginning of textural growth to the first of three *forte-fortissimo* peaks. Above the residual sounds of the oscillating piano arpeggios at m. 94, the low reeds enter, followed by horns and trombones. The voices, non-pitched percussion, tuba, and

upper woodwinds enter next while the horns and trombones exit. The tutti brass section completes the additive growth with percussion punctuations assisting to reach the final growth point at four minutes and thirty seconds. Figure 4.30 not only illustrates the growth in texture over two and a half minutes, but also the additions by timbral groupings and family colors. For example, a woodwind grouping that includes pairs of flutes, oboes, and a single B-flat clarinet enter at three minutes and sixteen seconds. Approximately twenty-four seconds later the brass family enters. The combined entrances team to provide the first of the three high apexes.

Figure 4.30: *On the Dominant Divide*. Texture Chart.
Bracketed portion reveals the textural growth used to reach the first of the three highest apices.



Over the same two-and-a-half minutes, the increase in textural density is joined by gradual intensifying dynamics, as well.

The *fortissimo* peak reached at the beginning of Section 3 is followed by an immediate decrease in dynamic and texture. In previous movements, lengthy dynamic growth passages largely occur through subtle increases in dynamics and texture. In contrast, this movement utilizes a terraced approach to both dynamic and textural growth. Figure 4.31 illustrates the

terraced dynamic growth that occurs from Section 3 to the beginning of Section 5.

Figure 4.31: *On the Dominant Divide*. Dynamics Chart with sections outlined. Bracketed area illustrates terraced dynamic growth in Sections 3 and 4.

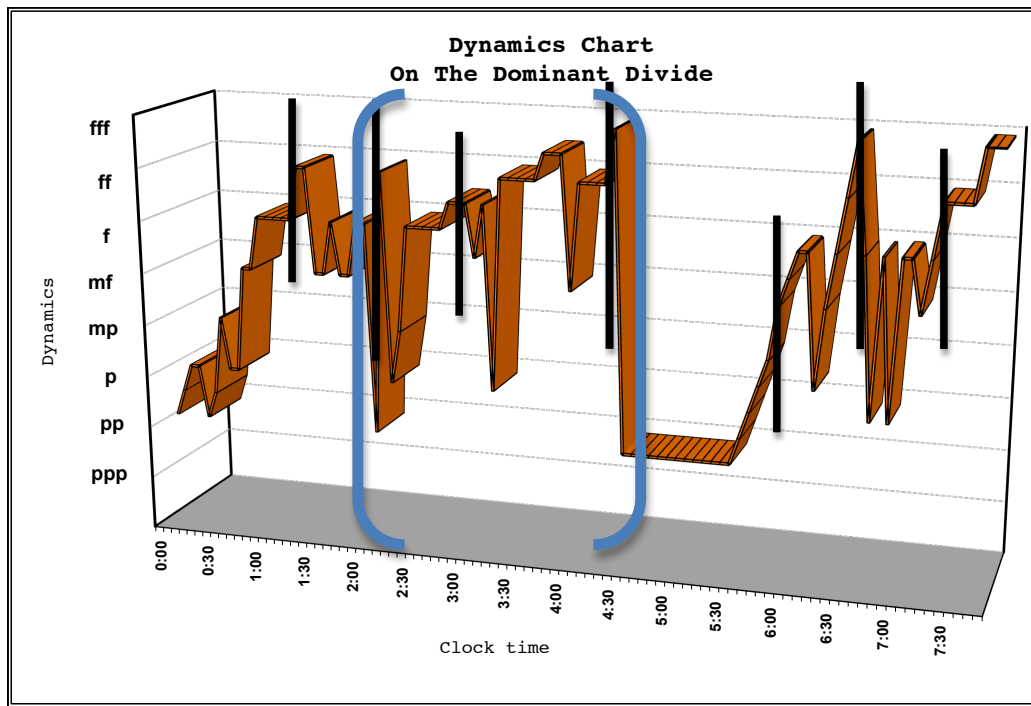
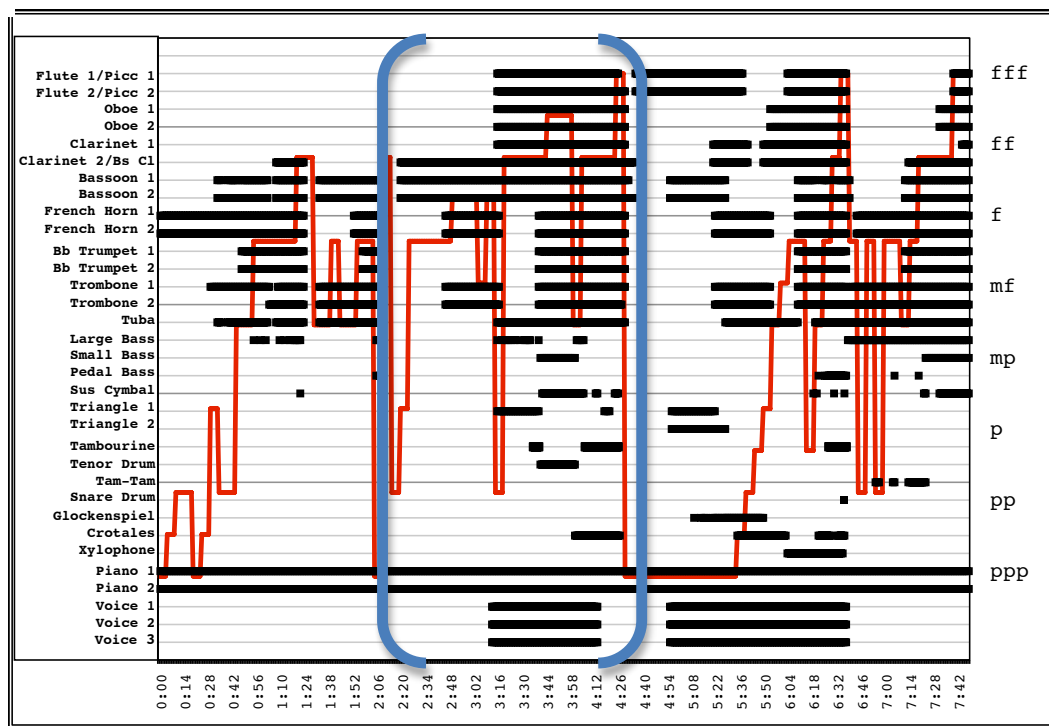


Figure 4.32 illustrates the terraced, rather than gradual change in texture during Sections 3 and 4.

Figure 4.32: *On the Dominant Divide*. Combined Dynamics and Texture Chart. Bracket illustrates dynamic and textural growth in Sections 3 and 4.



Of greatest melodic interest in the entire work is the introduction of a gospel-style melody found in the pianos and introduced in Section 3. The song-like melody, with its antecedent and consequent phrase structure, provides the only singable moment after over twenty-five minutes of abstract music dominated by organic or gradual change. The confidently stated gospel-style melody assists in providing a terraced

build-up to the only non-vocable text, "For I have seen the promised land."⁵¹

Adams' originally composed melody occupies eight fingers to complete the tune with its three octaves of chord tones. The composer refers to its nature as a type of "Ur-melodie," or a melody the listener thinks is familiar and has heard from somewhere before.⁵² The first of four complete statements of the sixteen-measure melody begins with the first piano in m. 104. In its original form, the melody contains a measure of silence after the eighth measure, between its two phrases. Example 4.20 presents the piano melody in its original form.

⁵¹ John Adams, *Grand Pianola Music* (Milwaukee: Associated Music Publishers, Inc., 1994), 108.

⁵² John Adams, *Hallelujah Junction: Composing an American Life* (New York: Farrar, Straus and Giroux, 2008), 117.

Example 4.20: *Grand Pianola Music, On the Dominant Divide*, mm. 104-119. Piano melody in its original form.

The musical score shows two systems of piano music. The first system starts at measure 104 and ends at measure 111. The second system starts at measure 112 and ends at measure 119. The melody is primarily in the right hand, with the left hand providing harmonic support through arpeggiated chords. The dynamic marking is *f* (forte) at the beginning and *mp* (mezzo-piano) at the end.

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In Section 3, mm. 96-102, the texture is reduced to only the pianos. The bass clarinet and two bassoons slightly increase the textural density in m. 103 creating sustained harmonic support for the initial statement of the melody in the first piano. The second piano decorates the first piano's melody with arpeggiated chords that stand in textural contrast to the rhythmically aligned melodic chords. Example 4.21 illustrates the orchestration and dynamic at the beginning of the first melodic statement. To more dramatically prepare the first melodic statement, Adams indicates, "Gradually relax the tempo⁵³" at m. 97. The

⁵³ John Adams, *Grand Pianola Music* (Milwaukee: Associated Music Publishers, Inc., 1994), 94.

tempo slows from a dotted half note equaling eighty-four beats per minute to eighty beats per minute. The first melodic statement is presented at the new slower tempo.

Example 4.21: *Grand Pianola Music, On the Dominant Divide*, mm. 103-104. First statement of piano melody with low woodwinds and increased dynamics.

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The memorable melody is stated four and one-half times, with each repetition generating more energy by adding layers to the texture and strengthening in volume. The second statement occurs in the second piano, which is marked with instructions, "slightly louder than Piano 1's previous statement."⁵⁴ Staccato-articulated horn and trombone entrances add to the textural

⁵⁴ John Adams, *Grand Pianola Music* (Milwaukee: Associated Music Publishers, Inc., 1994), 97.

expansion while recalling same-note iterations from *Part IA*. Example 4.22 illustrates dynamic and textural elements that surround the second statement.

Example 4.22: *Grand Pianola Music, On the Dominant Divide*, mm. 122-124. Second statement of piano melody with dynamic and textural increase.

The image shows a musical score for Example 4.22, titled "Grand Pianola Music, On the Dominant Divide, mm. 122-124. Second statement of piano melody with dynamic and textural increase." The score is arranged in a grand staff format, with multiple staves for different instruments. The instruments listed are Bsn. Cl., Bsn. 1, Bsn. 2, Hrn. 1, Hrn. 2, Tbn. 1, Tbn. 2, Pno. 1, and Pno. 2. The piano part (Pno. 1 and Pno. 2) is marked with a forte (f) dynamic and a note that it is "f slightly louder than Piano I's previous statement". The score shows the second statement of the piano melody, which is characterized by a dynamic and textural increase. The piano part is marked with a forte (f) dynamic and a note that it is "f slightly louder than Piano I's previous statement". The score includes various musical notations such as notes, rests, and dynamic markings.

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In the third statement, the melody returns to the first piano an octave higher while the instrumentation expands to include large bass drum ruffs that punctuate the phrasing. The staccato same-pitch iterated quarter notes, which previously occurred during the second melodic statement by the horns and trombones, now appear in the upper woodwinds and triangle. Additionally, the

voices enter for the first time in the movement to frame the melody two measures preceding the third repetition. The voice timbre refreshes the texture with harmonic support adding vibrancy to the unchanged melodic tune. Additionally, instructions to "gradually restore"⁵⁵ the opening tempo interjects more energy to the melody than prior statements. The combination of increased tempo, entrance of the voices, key change, and the addition of the woodwind texture, as illustrated in Example 4.23, signals the beginning of Section 4 at m. 139 or three minutes and sixteen seconds.

⁵⁵ John Adams, *Grand Pianola Music* (Milwaukee: Associated Music Publishers, Inc., 1994), 99.

Example 4.23: Grand Pianola Music, On the Dominant Divide, mm. 139-141. Third statement of piano melody with instrumental expansion, tempo restoration, voice inclusion, and increased dynamics.

Gradually restore tempo to $\text{♩} = 84$

The musical score consists of the following parts and markings:

- Flute 1 (Fl. 1) and Flute 2 (Fl. 2):** *f staccato*
- Oboe 1 (Ob. 1) and Oboe 2 (Ob. 2):** *f staccato*
- Clarinet 1 (Cl. 1) and Clarinet 2 (Cl. 2):** *f staccato*
- Bassoon 1 (Bsn. 1) and Bassoon 2 (Bsn. 2):** *f staccato*
- Horn 1 (Hn. 1) and Horn 2 (Hn. 2):** *f staccato*
- Trombone 1 (Tbn. 1) and Trombone 2 (Tbn. 2):** *f staccato*
- Trumpet (Tbn. 3):** *f staccato*
- Percussion 1 (Perc. 1):** *mf*
- Percussion 2 (Perc. 2):** *mf*
- 3 Women's Voice:** *mf*
- Piano 1 (Pno. 1):** *ff*
- Piano 2 (Pno. 2):** *ff*

Tempo instruction: Gradually restore tempo to $\text{♩} = 84$

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In the fourth melodic statement the melody returns to the second piano, still at the higher octave but with selected rolled chords to more authentically imitate the gospel-style. Additionally, more non-pitched percussion, a hemiola figure in the low brass, and upper-brass quarter-note iterations expand the texture. While the same-pitch iterations in earlier melodic statements served as rhythmic drum-set fills during long-notes of the melody, the iterations during the fourth melodic statement join the melody to reinforce its rhythm, similar to all voices singing together in a choral refrain. Assisting with the rise in tension, the flutes change to piccolos to increase the registral and timbral parameter, all woodwinds increase their iterations to eighth-note figures, and ascending three-note phrases appear in the women's voices. Each voice begins and returns to the same low note, creating an E-flat major triad in first inversion, moving to root position, then resting on second inversion. Rapid increases in complex rhythms containing duple versus triple patterns are found in the accompanying first piano. Example 4.24 illustrates the growth in intensity with each new introduced element.

Example 4.24: Grand Pianola Music, On the Dominant Divide, mm. 155-157. Fourth statement of piano melody with dynamic and textural expansion.

The musical score for Example 4.24, titled "Grand Pianola Music, On the Dominant Divide, mm. 155-157. Fourth statement of piano melody with dynamic and textural expansion." The score is written for a full orchestra and three women's voices. The key signature is one flat (B-flat major/D minor) and the time signature is 4/4. The score begins at measure 155, marked "Picc." and "f". The piano part (Pno. 1 and 2) features a complex, rhythmic melody with many triplets and sixteenth notes. The woodwinds and brass parts also play staccato figures, often in unison or octaves. The percussion includes a variety of instruments such as tam-tam, triangle, small bass drum, and tenor drums. The three women's voices sing a simple, rhythmic melody with the syllable "Nah". The score is marked "sempre staccato" throughout, indicating a consistent staccato articulation. The dynamic marking "f" (forte) is used for the piano and many of the woodwind and brass parts.

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In the final statement at m. 173 or four minutes and six seconds, the brass take over the melody while the pianos play either oscillating chords or eighth-note broken arpeggios with the woodwinds. The voices and pitched percussion provide repeated quarter notes to heighten tension. These iterations, while a recurring element in the work, are new to the crotales and voices. The triads presented in these parts add to the textural thickness as the melodic statements continue to return. The clarinets heighten energy by adding eighth-note triples, creating a 2:3 polyrhythmic layer. Example 4.25 illustrates multi-layered rhythmic and textual features during the brass melodic statement.

Example 4.25: Grand Pianola Music, On the Dominant Divide, mm. 172-174. Brass statement of melody with multiple rhythmic and textural layers.

The musical score for Example 4.25, "Grand Pianola Music, On the Dominant Divide, mm. 172-174," is a complex orchestral arrangement. It features a full orchestra with multiple layers of brass instruments (Flutes, Oboes, Clarinets, Bassoons, Horns, Trumpets, Trombones, and Tuba) playing a complex, multi-layered melody. The woodwinds and strings provide harmonic support. The percussion includes cymbals, bongo drums, and a tambourine. The women's voices sing "Nun Nun" in a rhythmic pattern. The piano parts provide a steady accompaniment.

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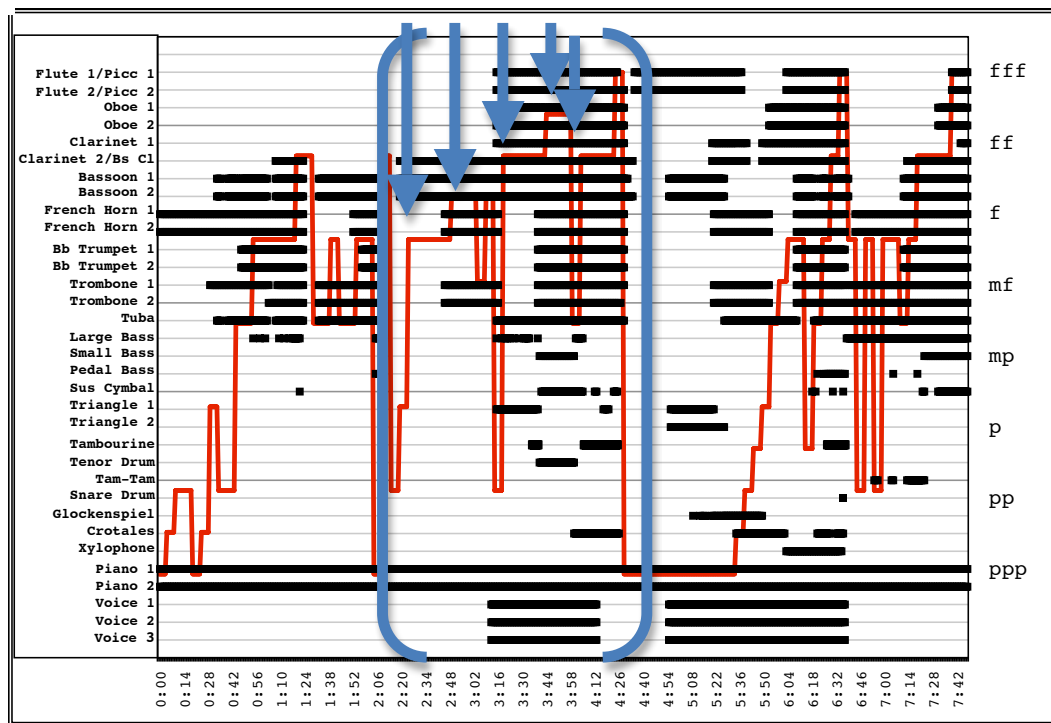
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Each melodic statement over the previous two-minute climb presents terraced-style dynamic and textural growth that corresponds to each statement of the melody. Figure 4.33 illustrates the combined terraced dynamic and textural growth at each melodic statement through Sections 3 and 4.

Figure 4.33: *On the Dominant Divide*. Combined Dynamics and Texture Chart. Bracket illustrates dynamic and textural growth in Sections 3 and 4. Arrows indicate the beginning of the melodic statements.



The brass complete the antecedent phrase in m. 178 as all forces crescendo to a frenetic, intense *fortissimo* explosion that marks the first of three

apexes at four minutes and twelve seconds in the movement. As the climax occurs, the voices sing their only words in the entire piece, "For I have seen the promised land."⁵⁶ The last three notes of the voice phrase repeats the last three notes of the melody's consequent phrase, as if to complete the brass antecedent.

Whereas Adams provides no explanation regarding the implications of the text, only speculation concerning its meaning can be made. One rationale could be the direct reference to Dr. Martin Luther King, Jr.'s speech "I see the Promised Land," given in Memphis, Tennessee on April 3, 1968.⁵⁷ The compound growth of tension reflected with terraced increases in dynamic and texture occurring with each melodic statement, mirrors the mounting defiant acts of protest during the tumultuous time of the Civil Rights movement leading up to Dr. King's speech. In the last melodic statement with the tension at almost the highest point, the brass herald the melody for the first and only time as if symbolizing

⁵⁶ John Adams, *Grand Pianola Music* (Milwaukee: Associated Music Publishers, Inc., 1994), 108.

⁵⁷Great Speeches, "I have seen the Promised Land." <http://greatspeeches.wordpress.com/> accessed June 30, 2010.

hope in finding the "Promised Land." Immediately following the brass partial statement, the voices' uplifting phrase appears amidst the peak of the two-minute of escalating melodic statements. Symbolically, the angst and tension during the time of Dr. King's historical speech appeared to be at the edge of a breaking point. However, his "I see the Promised Land" speech gave his followers optimism for the future. The nature of the music following the text is turbulent and ominous, perhaps symbolic of Dr. King's reference that "We've got some difficult days ahead."⁵⁸ The day following his speech, Dr. Martin Luther King, Jr. was assassinated.

Example 4.26 illustrates the full texture during the appearance of the text.

⁵⁸Ibid.

Example 4.26: Grand Pianola Music, On the Dominant Divide, mm. 176-178. "For I have seen the promised land."

The musical score is arranged in a standard orchestral format. It begins at measure 176 and ends at measure 178. The key signature is one flat (B-flat major or D minor). The score includes parts for the following instruments and voices:

- Flute 1 (Fl. 1) and Flute 2 (Fl. 2)
- Oboe 1 (Ob. 1) and Oboe 2 (Ob. 2)
- Clarinet 1 (Cl. 1) and Clarinet 2 (Cl. 2), with Bass Clarinet (Bass Cl.) also indicated.
- Bassoon 1 (Bsn. 1) and Bassoon 2 (Bsn. 2)
- Horn 1 (Hn. 1) and Horn 2 (Hn. 2)
- Trumpet 1 (Tpt. 1) and Trumpet 2 (Tpt. 2)
- Trombone 1 (Tbn. 1) and Trombone 2 (Tbn. 2)
- Tuba (Tba.)
- Percussion (Perc.): Crotchet (Crot.), Snare Cymbal (Sn. Cym.), and a third Percussion part (Perc. 3).
- 3 Women's Voices
- Piano 1 (Pno. 1) and Piano 2 (Pno. 2)

The score features a variety of musical notations, including dynamics such as *ff* (fortissimo) and *p* (piano), and articulations like accents and slurs. The vocal line for the 3 Women's Voices part includes the lyrics: "Nun For I have seen the prom ised land".

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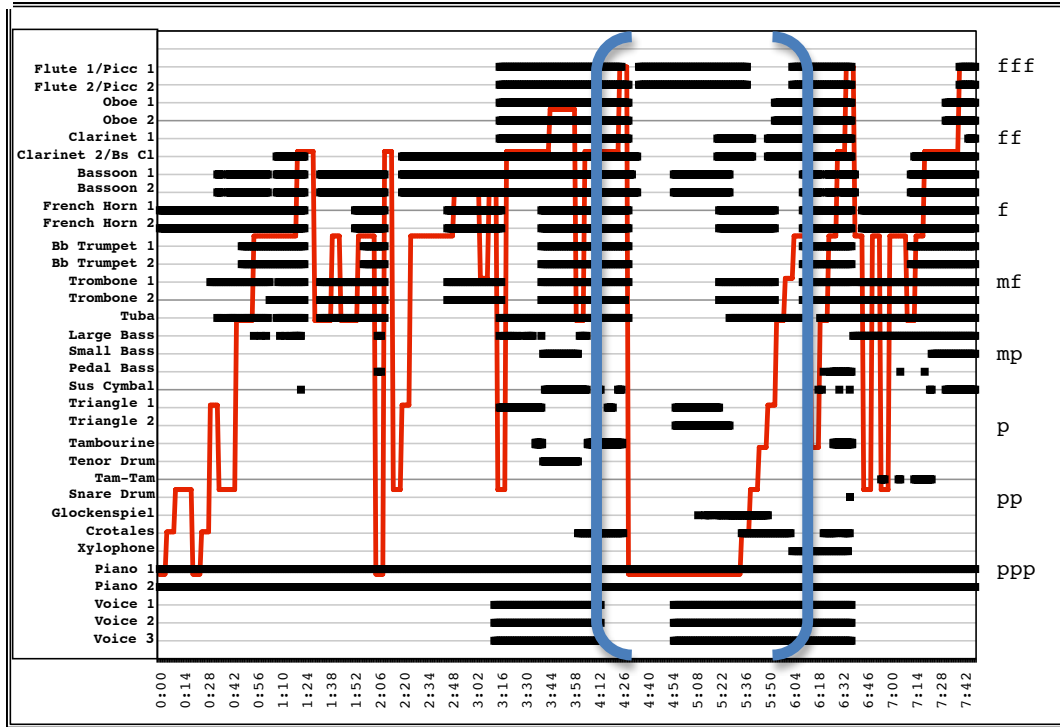
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Immediately following the completion of the “...promised land” phrase, the harmonic point of furthest remove appears, modulating from E-flat/A-flat major to C/E minor. The music encounters seven measures of harmonic and rhythmic turmoil before dissolving into a serene rocking arpeggio with the same notes in the piano being rhythmically displaced by one eighth note. The irony of juxtaposing text rooted in optimism with rhythmic and harmonic instability is representative of Adams’ penchant for selecting important historical and cultural events and using them in a referential way to cause reflective thought.

Section 5, which follows the previous major climax, contains the longest one-minute sustained and softest dynamic, *piano-pianissimo*. The rapid and drastic plummet to the soft dynamic provides a moment of repose and reflection following the previous intense growth. The bracket in Figure 4.34 identifies Section 5 and its dramatic reduction of dynamics and texture.

Figure 4.34: *On the Dominant Divide*. Combined Dynamics and Texture Chart. Bracket illustrates Section 5 and the immediate decline in dynamics and texture.

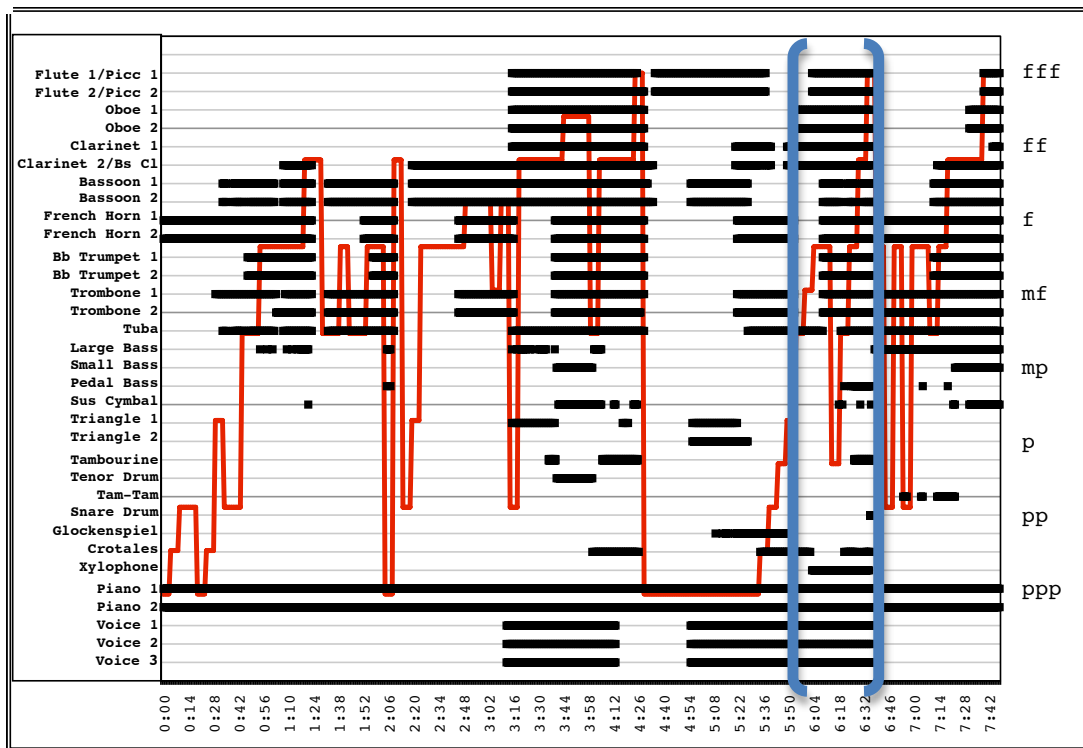


Section 6, beginning at m. 250 or five minutes and fifty-five seconds, contains the second of three apexes. To reach the apex, the tempo increases from half note equaling 84 to a half note equaling 144-152 by the end of Section 6 at m. 294. Additionally, due to many compositional techniques occurring at once, turbulent energy rebuilds over the span of the entire section. These techniques not only include increased dynamics and texture, but also hemiolas, phased rhythms, complex rhythmic groupings, wide registral leaps, six

oscillating key changes, and subdivided rhythms in both duple and compound meter.

After only ten seconds into Section 6 at m. 262 and six minutes and ten seconds, the texture again expands to the full array of ensemble timbres. With the full orchestration in place, Adams continues escalating energy by collectively increasing dynamics for every individual in the ensemble, which powerfully revs the ensemble engine. The crescendo builds over the course of the forty-three second section, with only a slight decrease in the middle to rebuild, resulting in the movement's second climax. The bracket in Figure 4.35 reveals the dynamic growth amidst unchanging texture that occurs in Section 6.

Figure 4.35: *On the Dominant Divide*. Combined Dynamics and Texture Chart. Bracket illustrates the dynamic growth and unchanging texture in Section 6.



Example 4.27 presents the full score view of the unchanging texture at the end of Section 6 and the dynamic growth that further increases energy into Section 7.

Example 4.27: Grand Pianola Music, On the Dominant Divide, mm. 291-296. Dynamic and textural apex at the end of Section 6; climax prepares Section 7.

The musical score is divided into two systems. The first system includes parts for Flute 1 & 2, Oboe 1 & 2, Clarinet 1 & 2 (with a note to Bass Clarinet), Bassoon 1 & 2, Horn 1 & 2, Trumpet 1 & 2, Trombone 1 & 2, Tuba, Percussion 1 (Crot.), Percussion 2 (Tamb.), Percussion 3 (Solo), 3 Women's Voices, Piano 1, and Piano 2. The second system continues the Piano parts. The score is marked with a tempo of ♩=144-152 and features dynamic markings such as *ff*, *f*, and *p*. Performance instructions include *sempre staccato* for the brass and woodwinds, and *To ♯4 damp immediately* for the percussion. The score concludes with a double bar line and repeat signs.

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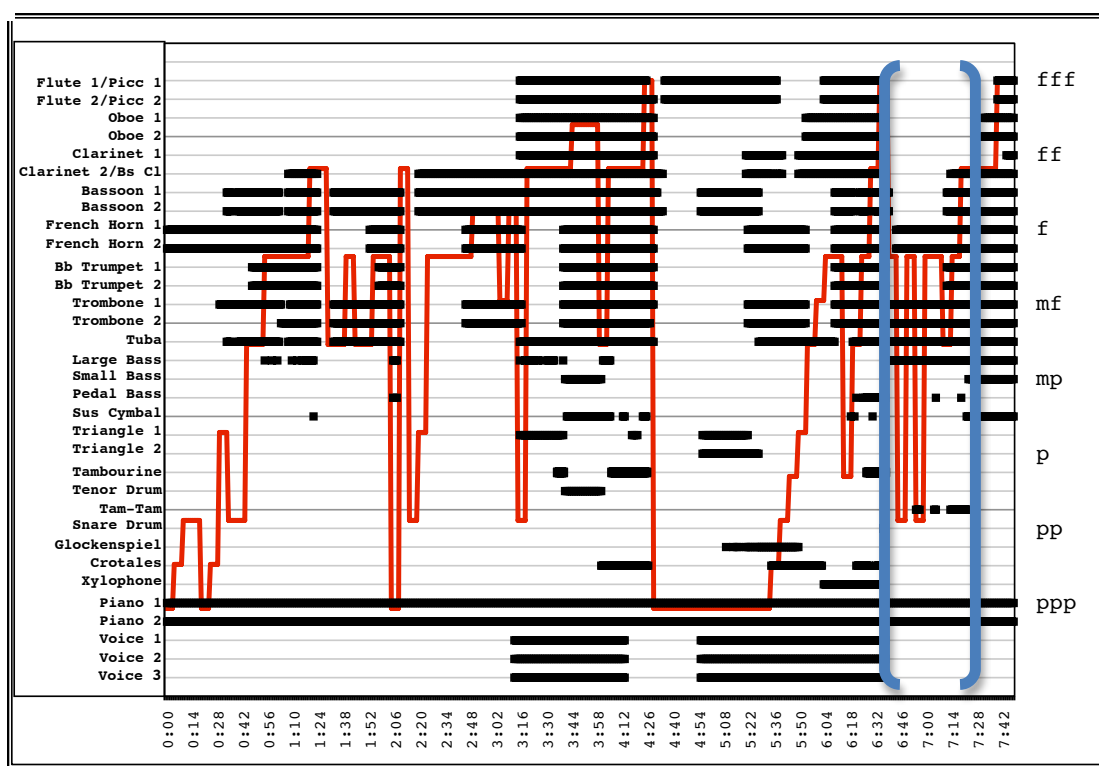
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Following the second apex at the end of Section 6 is a shorter, yet increasingly turbulent section. The material and treatment of dynamics in Section 7 recalls the brass sustained two-note motive between mm. 299-311 from Section 4 of *Part IA* and the fluctuating tuba solo dynamics from *Part IB*. Section 7 is only forty-six seconds in length and with its dynamic fluctuation serves to create uncertainty before arrival of the third and final apex.

Figure 4.36: *On the Dominant Divide*. Combined Dynamics and Texture Chart. Bracket illustrates the turbulent nature of Section 7.



Section 8, which begins in m. 350 or the seven minute and twenty-four second mark, concludes the final section of the movement and entire thirty-minute work. The section begins with the work's most identifying feature of iterated pitches. Low woodwinds, brass, and pianos comprise the initial timbral palette of Section 8. After eight seconds, at m. 358, the orchestration expands to both higher and lower instruments. The trumpets which contained same-note iterated quarter notes at the beginning of Section 8 change to sustained pitches to gradually become repositioned with accents and crescendos to the foreground from the background.

After another eight seconds of growing turbulence, the pair of piccolos add to the texture while expanding the upper registral parameters of the orchestration at m. 366-67. Also, crescendos through each piccolo's arpeggiated eighth-note figures contribute to the increased intensity.

For the last eight seconds of the piece, each instrument shouts its own repeated groups of pitches or single pitch while crescendoing to a final and strongest *forte-fortissimo* apex. Example 4.28 reveals the final

crescendo of unified forces to an exciting finish of the work.

Example 4.28: Grand Pianola Music, On the Dominant Divide, mm. 372-380. Conclusion of the movement with unchanging harmonic, rhythmic, and textural elements and dynamic increase to the end.

The musical score for Example 4.28, "Grand Pianola Music, On the Dominant Divide, mm. 372-380," is a full orchestral score. It begins at measure 372 and concludes at measure 380. The score is written for a full orchestra and piano. The instrumentation includes Flute 1 and 2, Oboe 1 and 2, Clarinet 1 and 2 (with Bass Clarinet), Bassoon 1 and 2, Horn 1 and 2, Trumpet 1 and 2, Trombone 1 and 2, Tuba, Percussion 1 (Snare, Cym.), Percussion 2 (Sm B.D.), Percussion 3 (Lg B.D.), Piano 1, and Piano 2. The score is in 6/8 time and features a consistent rhythmic pattern of eighth notes. Dynamics range from piano (p) to fortissimo (ff). The score concludes with a dynamic increase to the end.

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CHAPTER 5

SUMMARY, CONCLUSIONS, AND

RECOMMENDATIONS FOR FURTHER STUDY

SUMMARY

Although it has been almost thirty years since John Adams' *Grand Pianola Music* was composed and premiered, only since 2004 has it gained performance attention from university wind band conductors in the United States. The Columbus State University wind symphony with Robert Rumbelow, conductor, recorded *On the Dominant Divide* in 2004; Northwestern University performed the entire work in 2006 with conductor Mallory Thompson; during a John Adams composer-in-residence series in 2008 at the University of Texas at Austin, Jerry Junkin conducted the entire work with the University of Texas Wind Ensemble in 2008 and again in 2009 for the College Band Directors National Conference in Austin, Texas. Due to these recent university ensemble recordings and important performances, interest in and awareness of *Grand Pianola Music* within the community of university wind band conductors is likely to increase with growing performance interest eminent. Therefore, an analysis of *Grand Pianola Music* by John Adams is a timely

contribution to aid in score study for future conductors and performers.

For conductors, managing the score and comprehending the thirty-minute work presents unique challenges. Minimal techniques by their nature are subtle for the ear, but even more so for the eye. Long, mesmerizing passages containing micro changes amidst many page turns, especially in faster movements, are the musical score equivalent for the proverb, "I can't see the forest for the trees." In other words, scouring the score for subtle changes forces the conductor to observe a "turn by turn" journey, which not only obscures memory, but also an aerial view of the overall topography.

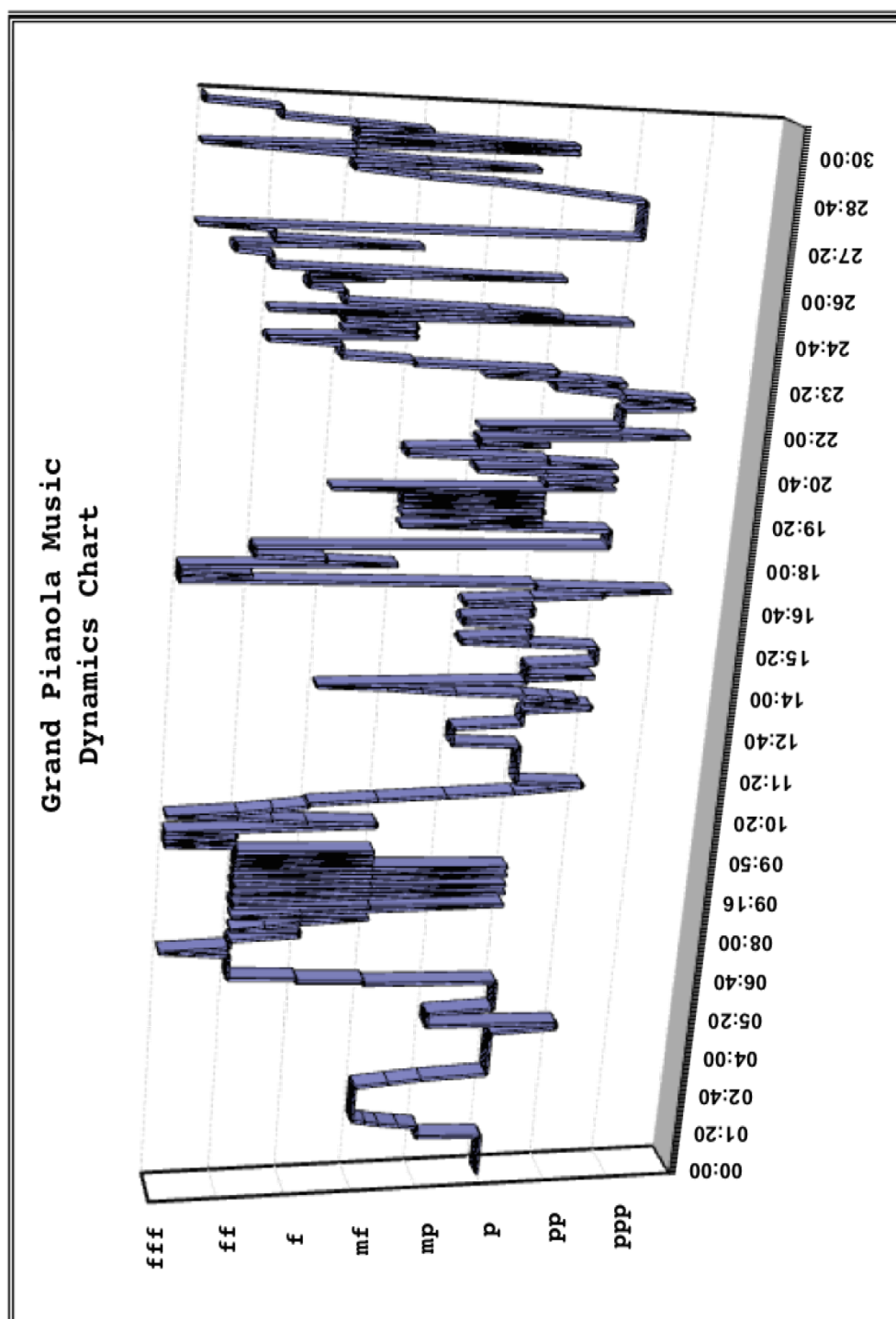
A study strategy to gain a broad view of the architectural design of the composition is to place single-sided copies of the score side-by-side on music stands or the floor, allowing succinct linear views at various walking paces. This particular strategy reveals, much like observing narrow and wide grooves in an old vinyl record album, the formal design through peaks and valleys of dynamic and texture change. Since laying out pages of the score is not possible in a document of this

type, dynamic and texture charts were constructed to provide a concise, yet substantially detailed overview of each movement as well as the dynamic scheme for the entire work.

The visual dynamic and texture charts clearly illustrate high and low points, as well as both subtle and wide fluctuations of dynamic energy. As one navigates the path from page to page in the score, the charts provide the equivalent of "GPS locating points" that help the conductor pace dynamic proportions within the large formal structure of the piece.

More specifically, the dynamic charts provide a visual representation of the energy required from the conductor to artistically pace and direct the music. While the previous chapter presents the individual movement's dynamic architecture, the following dynamic chart reveals the dynamic scheme for the entire thirty-minute work.

Figure 5.37: *Grand Pianola Music*. Dynamic Chart.



Upon closer examination of the dynamic chart found in Figure 5.37, nine *forte-fortissimo* peaks are indicated dynamically by the composer. Each conductor's challenge is to interpret the dynamic peaks in a way that allows an effective and dramatic presentation of these important marking points. While the peaks found in *Part IA* and *Part IB* are essential in framing the energy and pacing to the end, the ninth and final peak in *On the Dominant Divide* requires special attention to achieve a concluding pinnacle moment. Given the architectural plan for reserving energy for the final gesture, what remains is organizing the dynamic peaks for *Part IA* and *Part IB*.

In *Part IA*, which contains five of the nine peaks in the work, an effective plan would place the most emphasis within this movement on the fifth and final peak. The peak occurs at the proportion of the Golden Ratio and is emphasized by a key change with full ensemble, punctuated by percussion. Additionally, the glissando trombone gestures precede the peak and build the tension by ascending a half step.

While all of the peaks in *Part IA* are achieved by bursts of energy from rapidly building gestures, the

only peak appearing in *Part IB* is a sustained dynamic for approximately twenty three seconds. By the nature of the plateau peak, the listener perceives this impact point in a different way than the surrounding peaks. However, the conductor's challenge in achieving an effective impact with the long-note values is to reduce the potential timbral power of the brass to equalize the chord tones and colors with the remaining timbral forces. This strategy allows a rich and colorful palette of sound to impact the listener for the duration of the climax.

The texture charts similarly aid the conductor in dynamic pacing by providing information in textural density. In addition, this resource reveals valuable organizational information for rehearsals. For instance, the three soprano voices in *Part IB* are only used during the tuba solo in the C section of the movement. Also, in *Part IA* the voices are not utilized until after four minutes and thirty seconds. Figures 5.38 and 5.39 from *Part IA* and *Part IB* clearly illustrate the usage of voices in these two movements.

Figure 5.38: Part IA. Texture Chart.

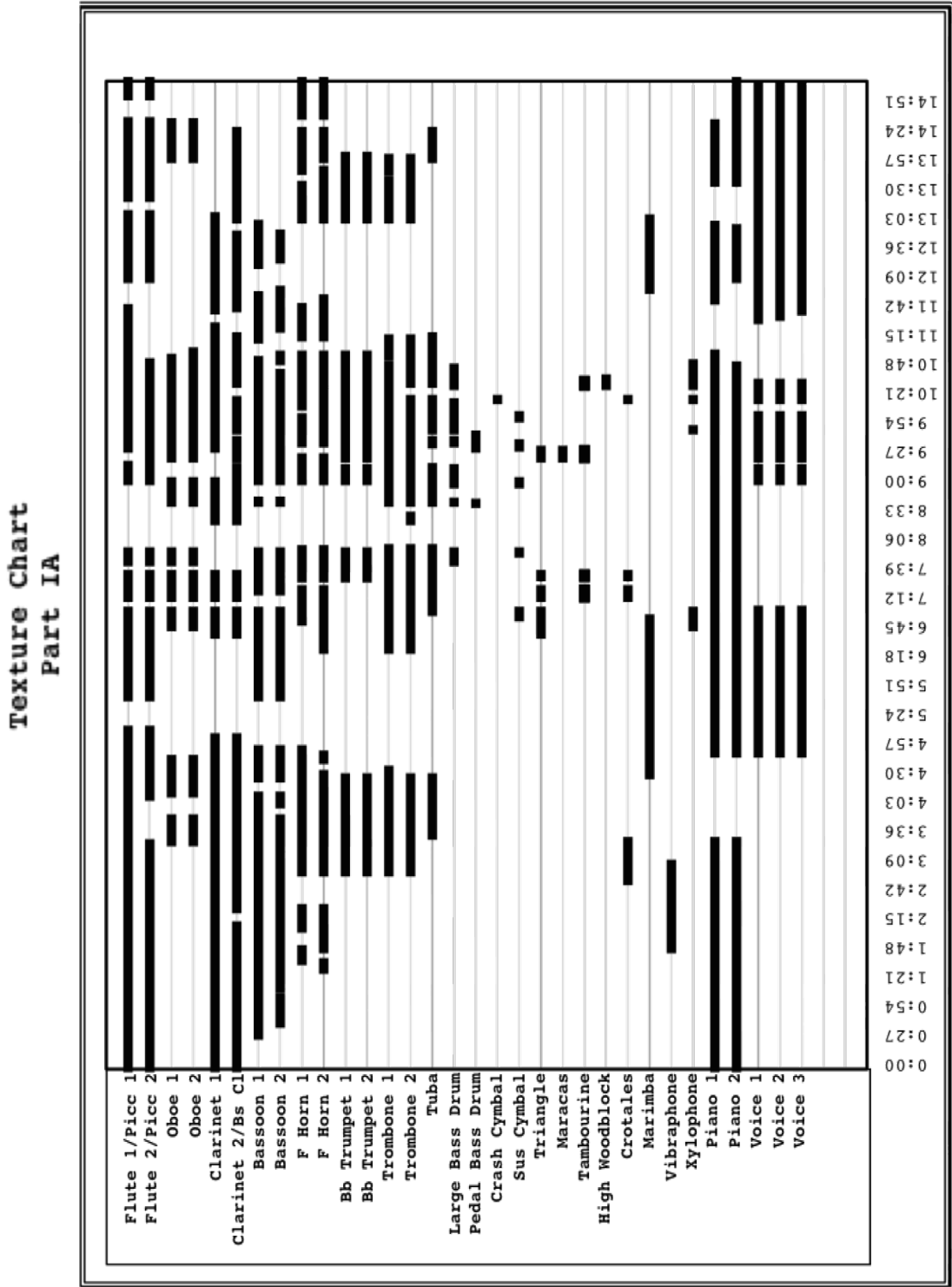
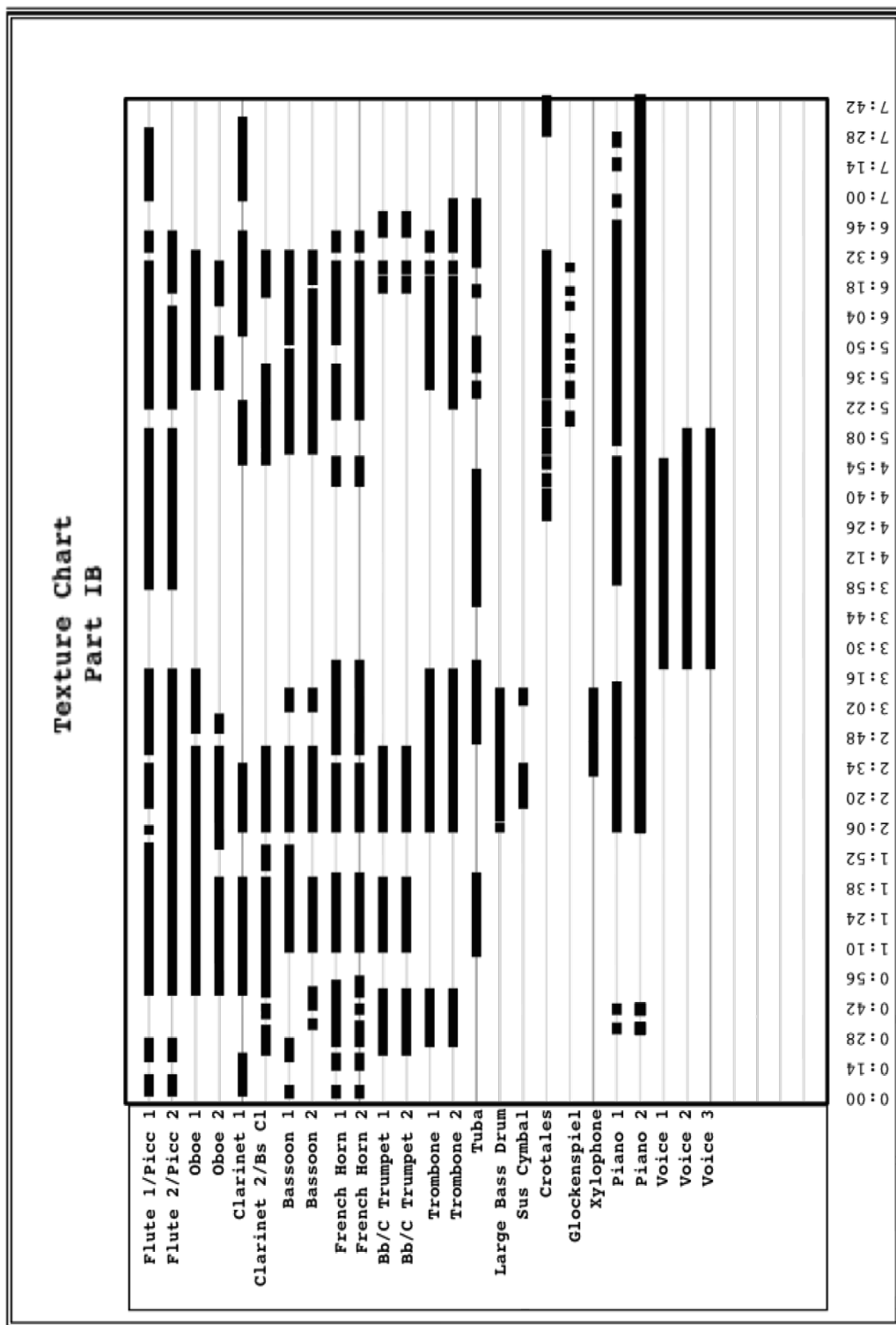


Figure 5.39: Part IB. Texture Chart.



In contrast to the more sparingly used voices, the two piano parts are the most utilized and important unifying timbre. A cursory examination of the piano parts in the previous texture charts reveals the presence of the piano timbre for all but a few short phrasal omissions in *Part IA* and *Part IB*. Furthermore, examination of piano usage in *On the Dominant Divide* reveals their continuous usage throughout. In organizing rehearsal segments the conductor can easily determine the intensity of playing as well as lengths of rests. Additionally, distributing the texture charts to the performers would provide valuable information for marking their parts with cues.

CONCLUSIONS

Grand Pianola Music is an important post-minimal work for the wind band genre where music of this style is limited. It is the author's hope that the dynamic and texture charts presented in this document, in conjunction with a detailed formal analysis, will provide a valuable resource for conductors developing their own personal artistic interpretation of the work. The score reveals a high level of craft while also

serving as an exemplary model for effective wind orchestration utilizing minimal techniques.

RECOMMENDATIONS FOR FURTHER STUDY

Given the focus of this document on the relationship of form to dynamics and texture, further insight would be gained by an examination of rhythm, register, and timbre in relation to form in *Grand Pianola Music*. Also, a closer investigation of key relationships as well as harmonic progressions would add to the understanding of the composition. Another study could overlay register data on the existing dynamic and texture charts to determine what relationships exist between form and register.

Finally, Adams recognizes an eclectic range of present and past composers who have influenced his compositional style. However, Igor Stravinsky is not among the composers Adams mentions in his biography as having significant influence. Given the striking similarity between portions of *Part IB* with Stravinsky's *Symphonies of Wind Instruments*, further study might reveal an important relationship between the music of these two significant composers of the last 100 years.

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APPENDIX A:

GRAND PIANOLA MUSIC: PROGRAM NOTE FOUND IN SCORE

Of all my works, *Grand Pianola Music* has the most checkered past. It suffered through a tortured beginning, endured endless rewrites, has on all too many occasions been subjected to excruciatingly bad performances, and continues, even after ten years, to arouse the most divided responses from audiences. The piece, as the saying goes, seems to have something to offend everybody. Even so, and without being coy, I can say quite frankly that I wrote the piece not to *epater les bourgeois*, but rather for the sheer pleasure of hearing certain musical "signals" -one could even call them clichés- piled up against one another. Dueling pianos, cooing sirens, Valhalla brass, thwacking bass drums, gospel triads, and a Niagara of cascading flat keys all learned to cohabit as I wrote the piece.

As with my *Harmonielehre*, which began with a dream of a huge oil tanker rising like a Saturn rocket out of the waters of San Francisco Bay, *Grand Pianola Music* also started with a dream image in which, while driving down Interstate 5, I was approached from behind by two long, gleaming, black stretch limousines. As the vehicles drew up beside me they transformed into the world's longest Steinways... twenty, maybe even thirty

feet long. Screaming down the highway at 90 m.p.h., they gave off volleys of B-flat and E-flat major arpeggios. I was reminded of walking down the hallways of the San Francisco Conservatory of Music, where I used to teach, hearing the sonic blur of twenty or more pianos playing Chopin, the *Emperor Concerto*, Hanon, Rachmaninoff, the *Maple Leaf Rag*, and much more.

Despite the image that inspired it, and despite the heft of its instrumentation (winds, brass, percussion, two bass drums, and, of course, the grand pianos), *Grand Pianola Music* is, for the most part, a surprisingly delicate piece. The woodwinds putter along in a most unthreatening fashion while waves of rippling piano arpeggiation roll in and out like tides. Three female voices (the sirens) sing wordless harmony, sometimes floating above the band in long sostenuto triads, while at other times imitating the crisp staccato of the winds and brass.

The principal technique of the piano writing was suggested to me by tape and digital delays, where a sound can be repeated in a fraction of a second. The two-piano version of this kind of delay was accomplished by having both pianists play essentially the same

material, but with one slightly behind the other, usually a sixteenth or an eighth note apart. This gives the piano writing its unique shimmer.

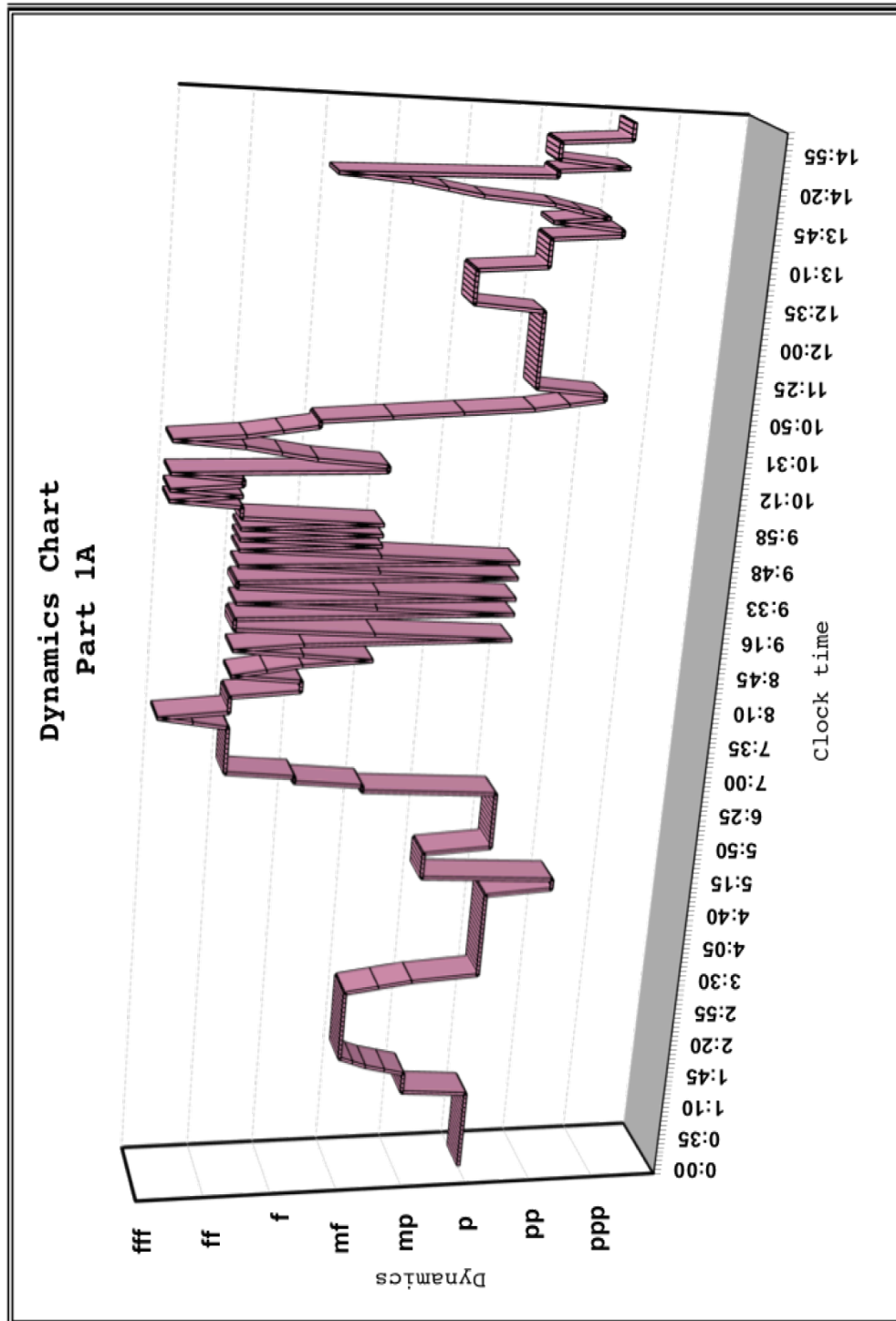
Grand Pianola Music is in two parts, the first being, in fact, two movements, joined together without pause that end up in a slow serene pasture with a grazing tuba. The shorter second part, "*On the Dominant Divide*," was an experiment in applying my minimalist techniques to the barest of all possible chord progressions, I-V-I. I had noticed that most "classical" minimalist pieces always progressed by motion of thirds in the bass and in all cases strictly avoided tonic-dominant relations, which are too fraught with a pressing need for resolution. What resulted was a swaying, rocking oscillation of phrases that gave birth to a melody. This tune, in the hero key of E-flat major, is repeated a number of times, and with each iteration it gains in gaudiness and Lisztian panache until it finally goes over the top to emerge in the gurgling C major of the lowest registers of the pianos. From here on it is a gradually accelerating race to the finish, with the tonalities flipping back and forth from major to minor, urging those gleaming black vehicles on to

their final ecstasy.

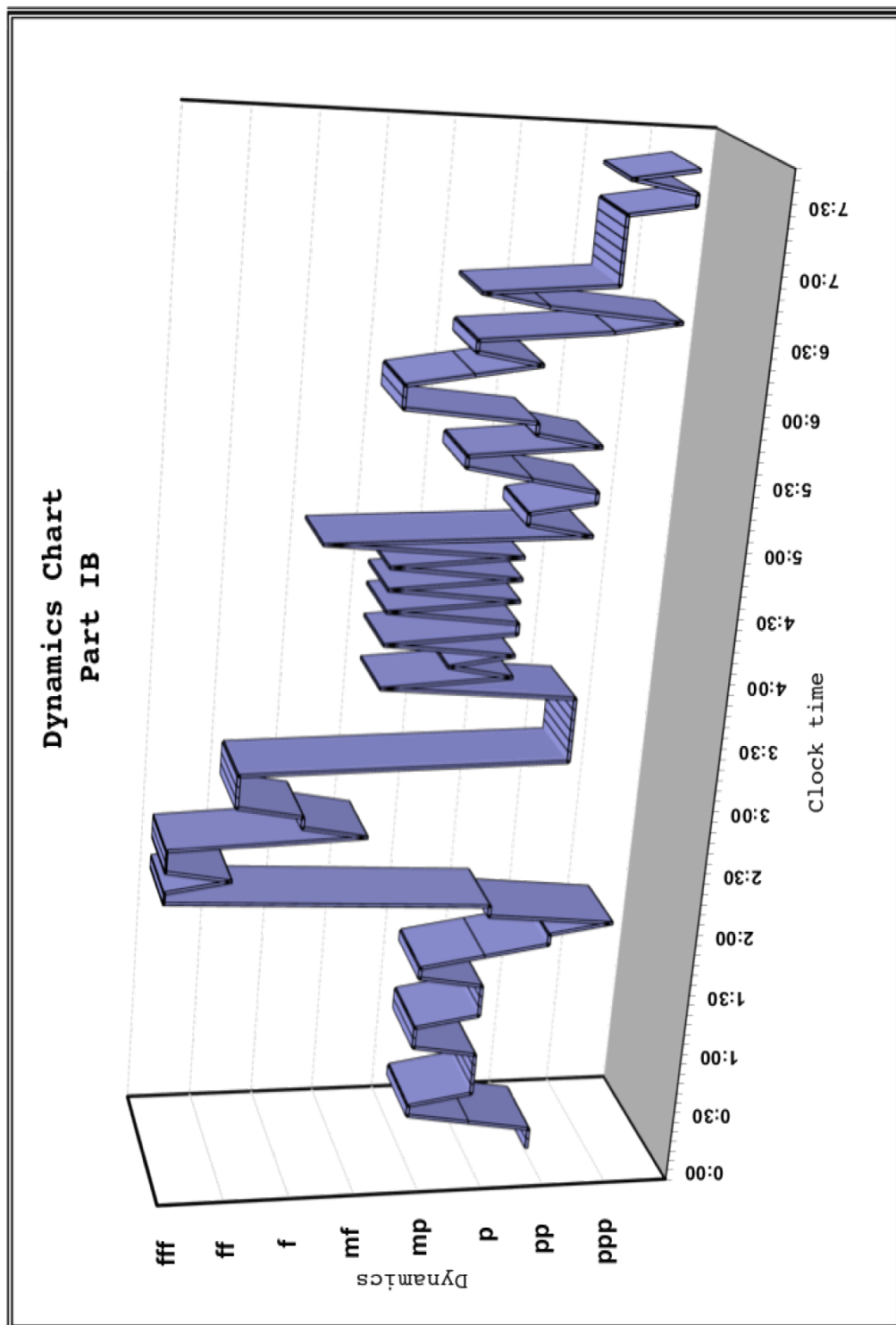
APPENDIX B

GRAND PIANOLA MUSIC: DYNAMIC AND TEXTURE CHARTS

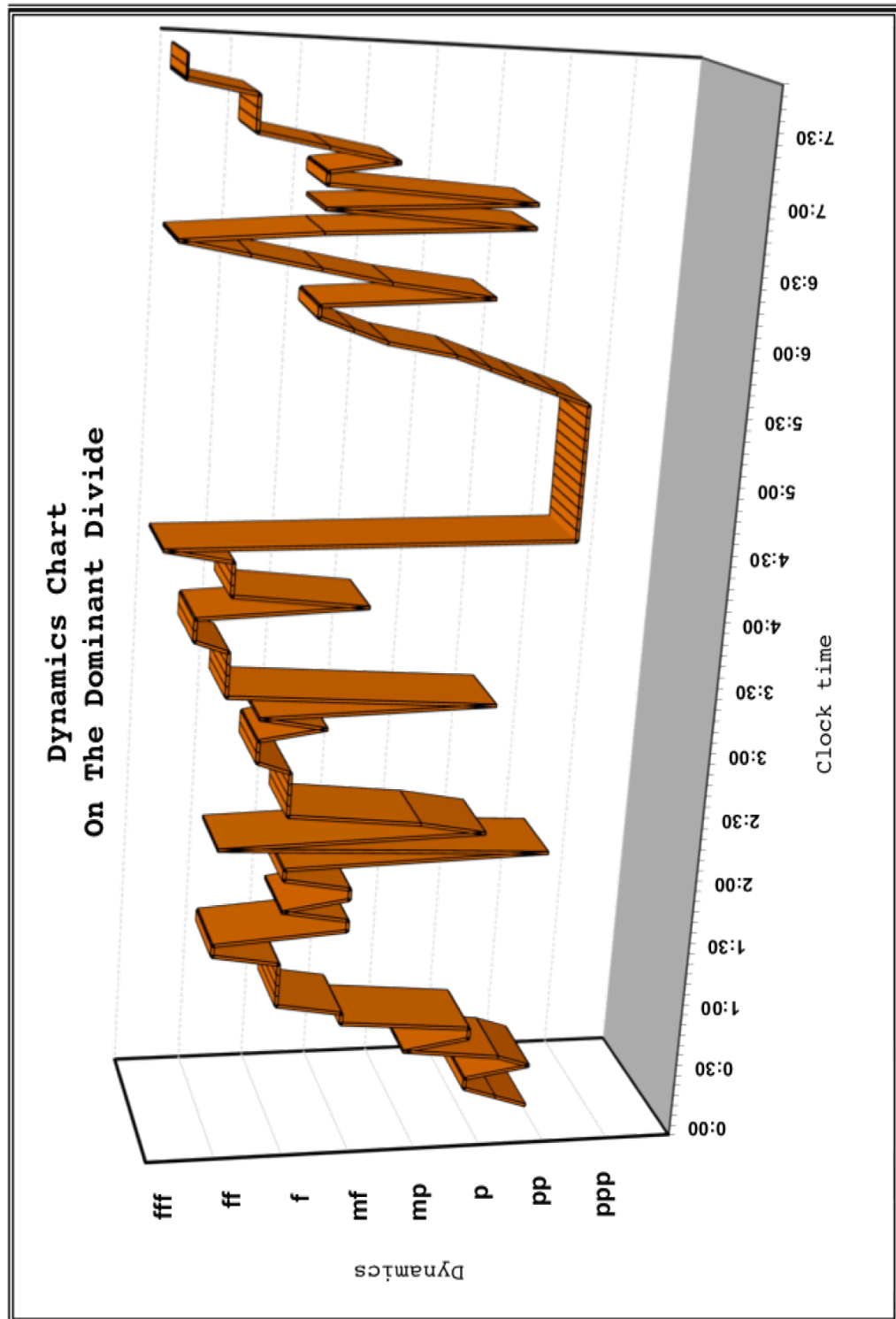
APPENDIX B.1: Dynamics Chart, Part IA



APPENDIX B.2: Dynamics Chart, Part IB

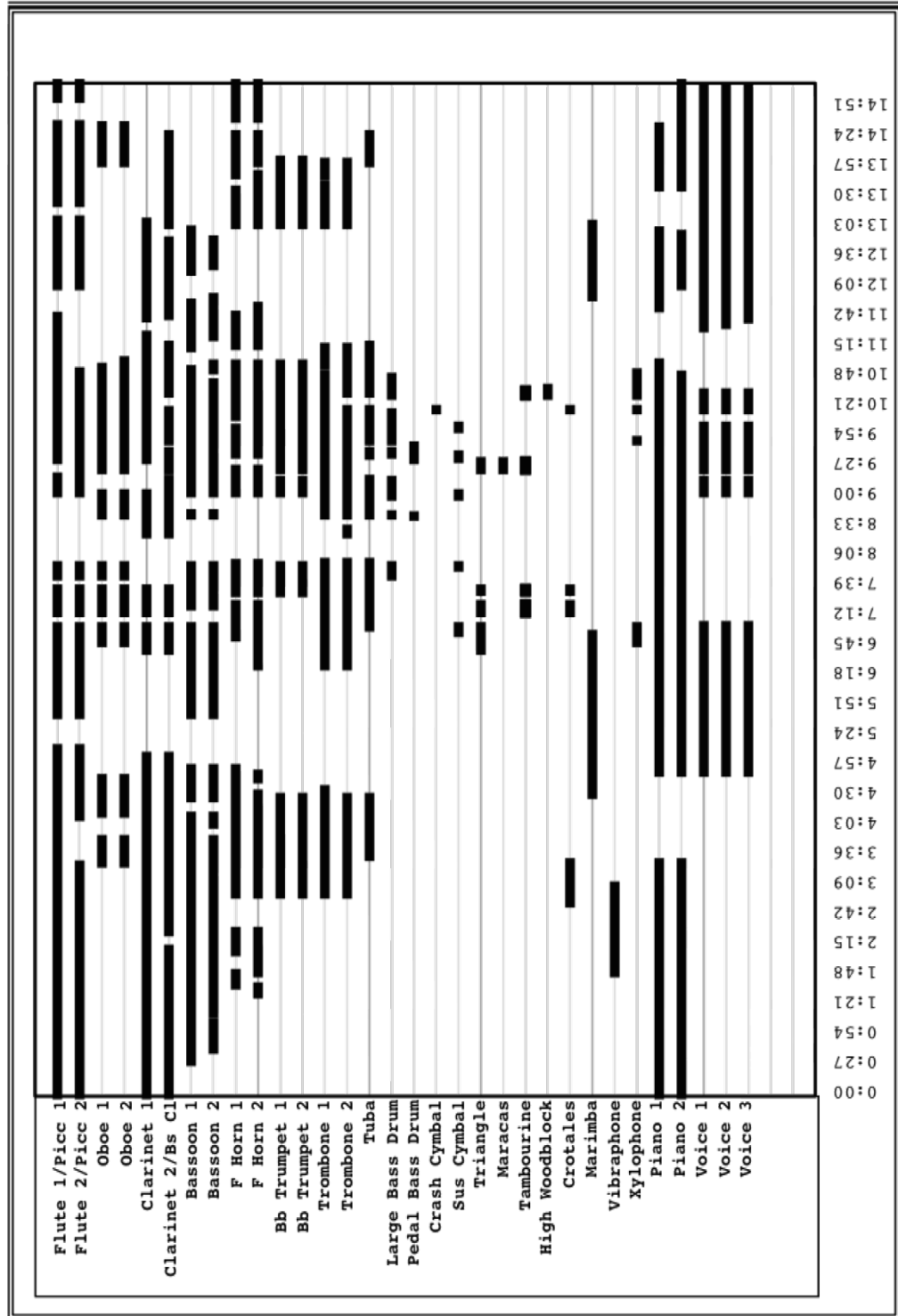


APPENDIX B.3: Dynamics Chart, *On the Dominant Divide*

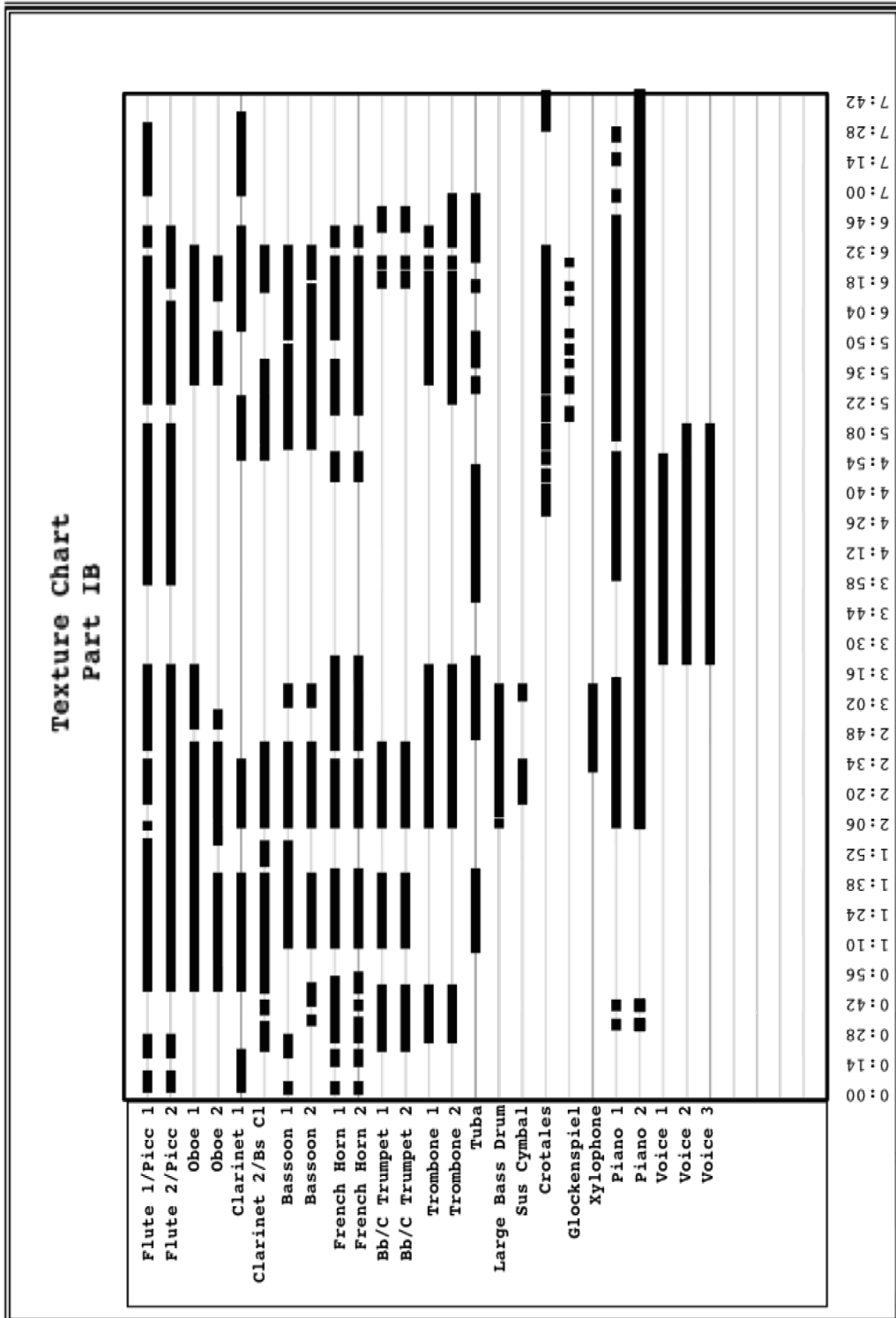


APPENDIX B.4: Texture Chart, Part IA

Texture Chart
Part IA

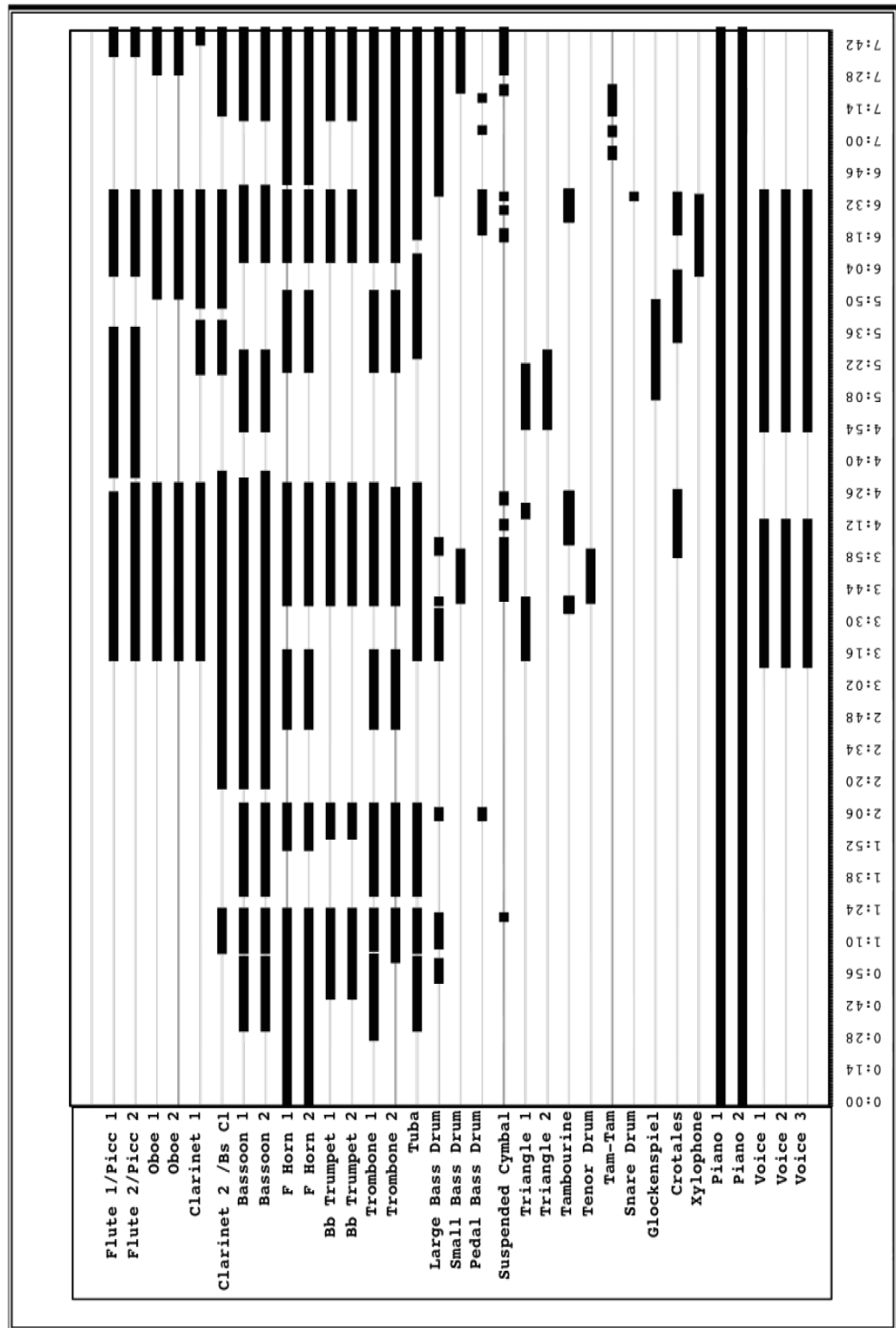


APPENDIX B.5: Texture Chart, Part IB

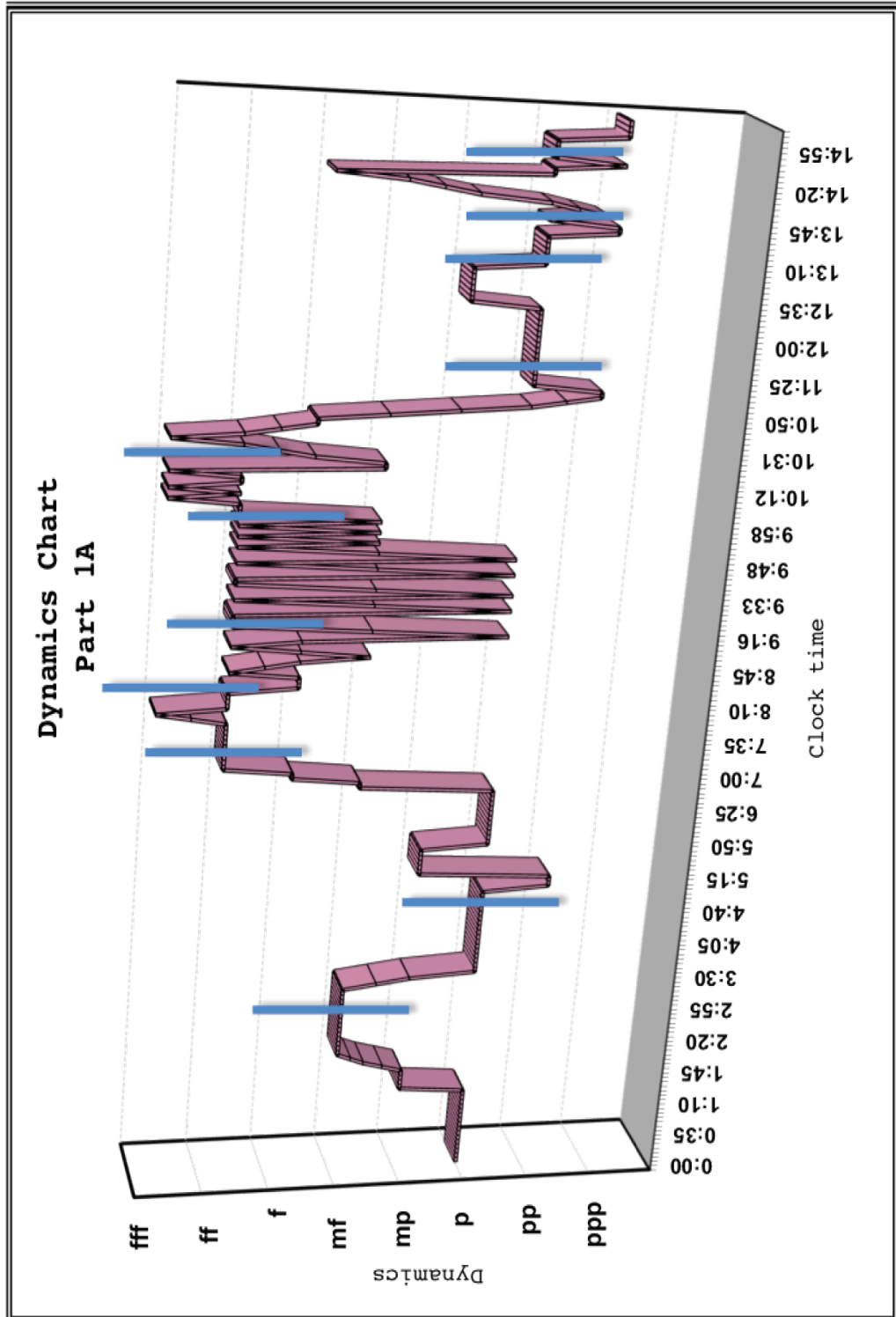


APPENDIX B.6: Texture Chart, *On the Dominant Divide*

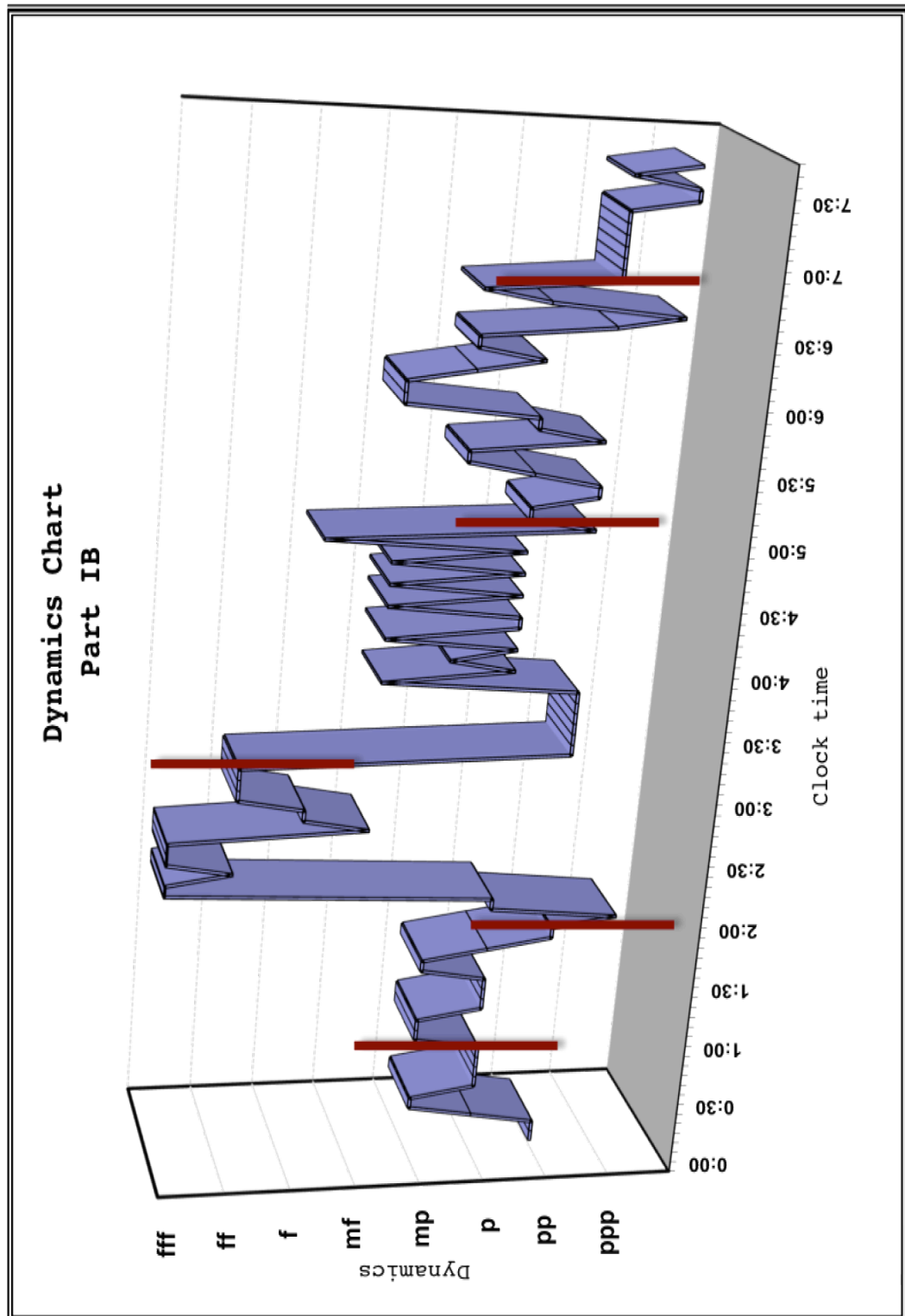
Texture Chart
On the Dominant Divide



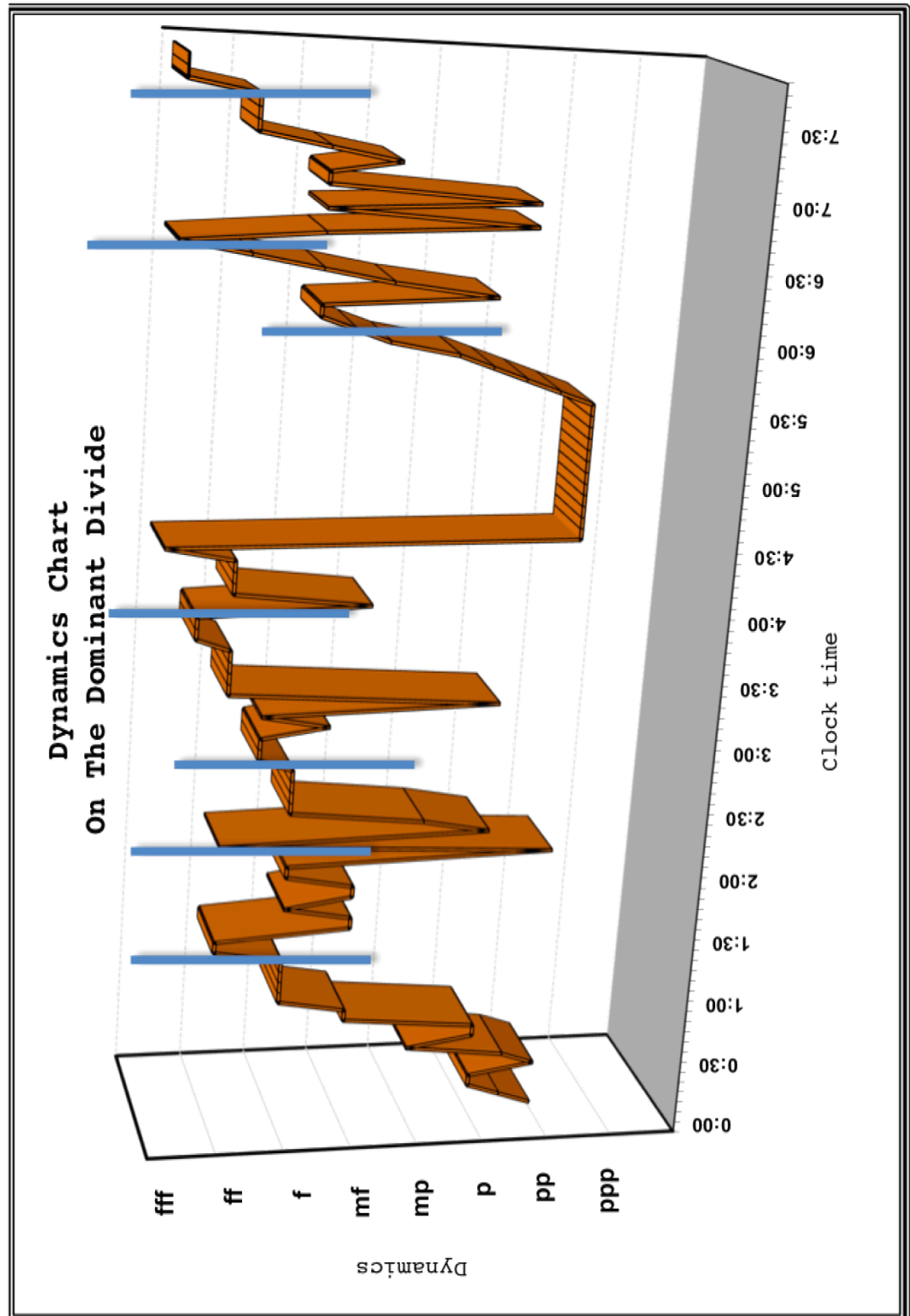
APPENDIX B.7: Dynamics Chart Showing Formal Sections,
Part 1A



APPENDIX B.8: Dynamics Chart Showing Formal Sections,
Part IB

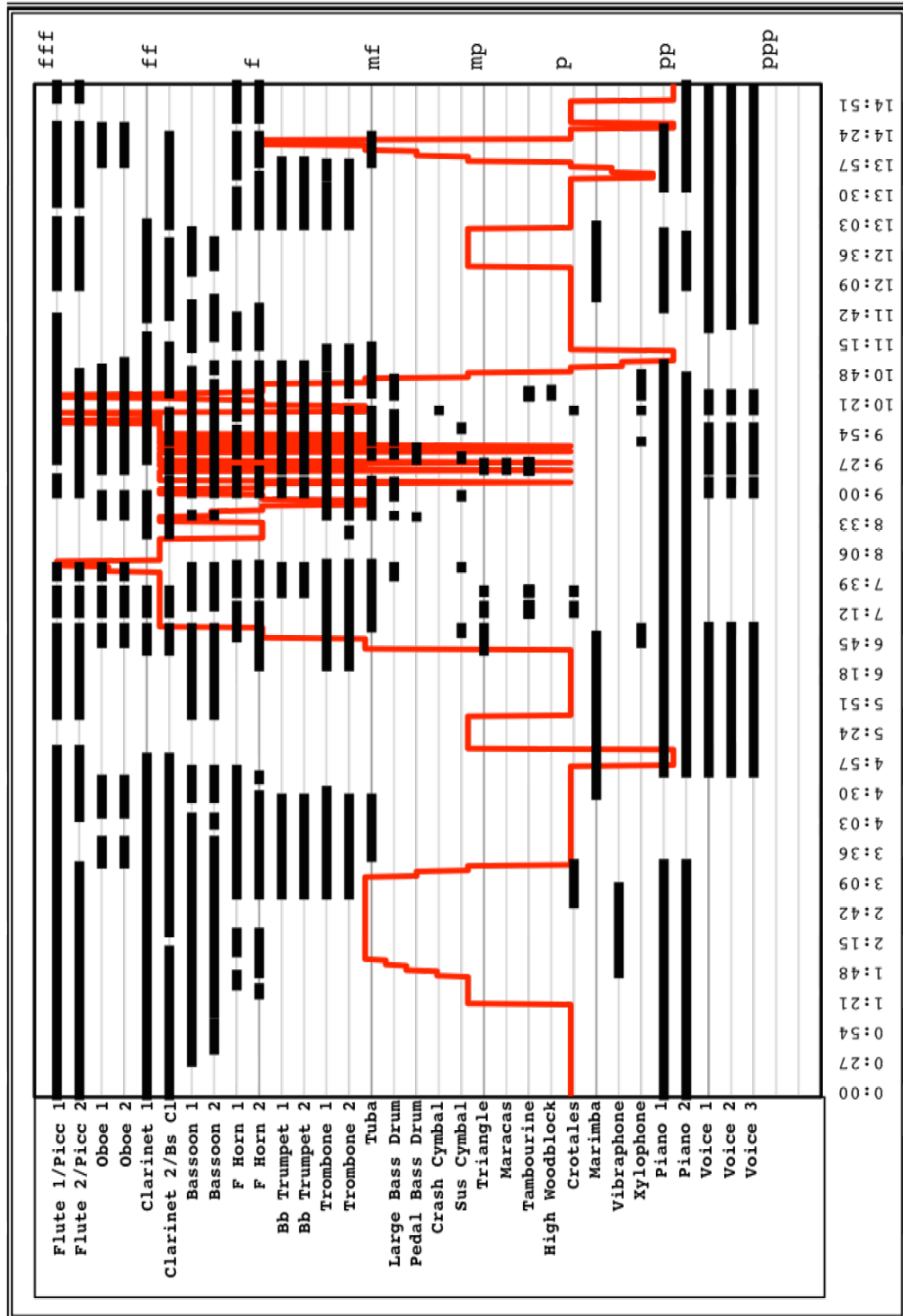


APPENDIX B.9: Dynamics Chart Showing Formal Sections,
On the Dominant Divide

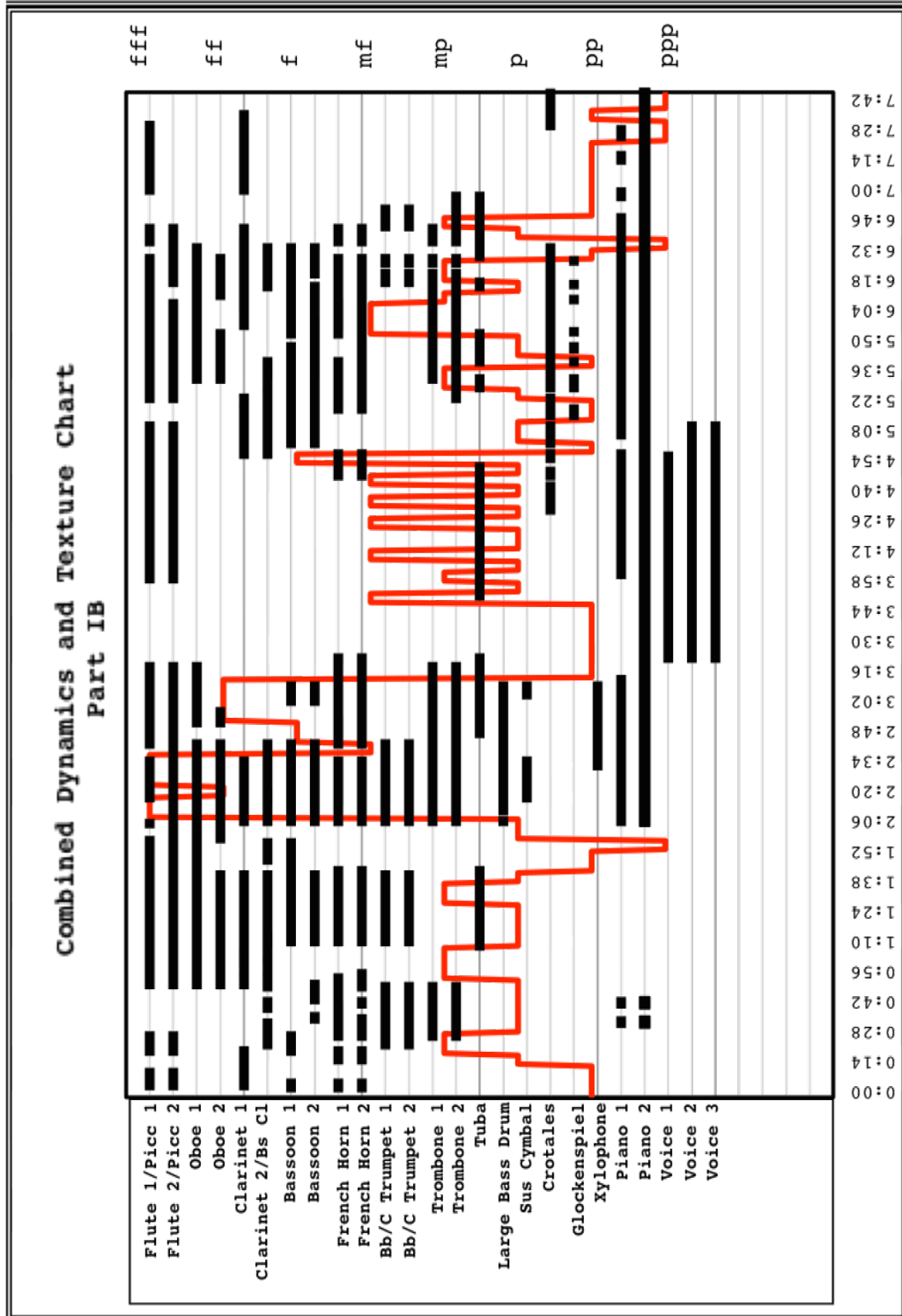


APPENDIX B.10: Combined Dynamics and Texture Chart,
Part IA

Combined Dynamics and Texture Chart
Part IA



APPENDIX B.11: Combined Dynamics and Texture Chart,
Part IB



APPENDIX B.13: GRAND PIANOLA MUSIC, Dynamic Chart

