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Leo Ornstein: The Rise and Fall of a Forgotten Genius
Early Modernism, Hebraic Elements, and Stylistic Evolution in his Pianistic Idiom

Doctoral Dissertation

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Πρώιμος Μοντερνισμός, Εβραϊκά Στοιχεία και Στυλιστική Εξέλιξη στο Πιανιστικό του Ιδίωμα

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Με ατομική μου ευθύνη και έχοντας επίγνωση της δυνατότητας επιβολής κυρώσεων από τη Γ.Σ.Ε.Σ. του Τ.Μ.Ε.Τ., δηλώνω υπεύθυνα ότι για τη συγγραφή της διδακτορικής μου διατριβής δεν χρησιμοποίησα ολόκληρο ή μέρος έργου άλλου δημιουργού ή τις ιδέες και αντιλήψεις άλλου δημιουργού χωρίς να γίνεται αναφορά στην πηγή προέλευσης (βιβλίο, άρθρο από εφημερίδα ή περιοδικό, ιστοσελίδα κλπ).

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To my mother Rasme
my aunt and mentor Vinia
and Severo Ornstein

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ABSTRACT

"Leo Ornstein: The Rise and Fall of a Forgotten Genius
Early Modernism, Hebraic Elements, and Stylistic Evolution in his Pianistic Idiom"

The purpose of this dissertation is to shed light on the historical significance and stylistic diversity of Leo Ornstein's music. During the course of my doctoral research, I performed several of Ornstein's most characteristic piano works, and I researched both published and unpublished resources. A milestone in my research includes my unexpected discovery of a previously overlooked Ornstein manuscript of a piano sonata, *Sonata pour le Piano (1917)*, that I found in the "Leo Ornstein Papers" archive at the Irving S. Gilmore Music Library, Yale University. I provide herein the first edition and extensive analysis of this remarkable unpublished work. Based on the above research, I propose new methods of analyzing Ornstein's music using the following: pitch sets, contour segmentation, post-tonal theory, and motivic cells, in order to define the basic traits of his pianistic idiom. The comparative analysis of his piano works and the recurring patterns in his writing style, which ranges from modernism to neoromanticism enriched with Hebraic elements, define the characteristics and evolution of his work. Furthermore, in order to gain an in-depth understanding of Leo Ornstein's life, work, and legacy, I interviewed his son, Severo Ornstein, for his uniquely significant role as a preserver, transcriber, and publisher of his father's entire opus, as well as a pioneer of musical notation software with the creation of "Mockingbird" in 1980. Finally, I investigate the multifaceted reasons behind Ornstein's rise to fame and his subsequent withdrawal from the international music scene, by researching his career as a pianist and composer, and his connection to early modernist circles in the US during the period of 1910–1920.

Key words: Leo Ornstein, A Morning in the Woods, Wild Men's Dance, Three Moods, Solitude, To a Grecian Urn, Piano Quintet, Sonata No. 4, Impromptu, A Reverie, Three Fantasy Pieces, Metaphors, Mother O' Mine, Severo Ornstein, Sarah Cahill, Mockingbird, The Leo Ornstein Papers, modes, Hitzaz, Mi Sheberach, Poimenikos, Hebraic, Slavic, Eastern European, Middle Eastern, Russian Orthodox, piano, modernism, futurism, orientalism, tone-cluster, polymeter, polyrhythm, dada, Ukraine, Russia, pogroms, Henry Cowell, Charles Ives, Stravinsky, Bartók, Schoenberg, Debussy, Ravel, Messiaen, Calvocoressi, Judaism, cantor, set theory, contour analysis, contour segment, Allen Forte, Michael Friedmann, Golden Age of Piano, Michael Broyles, Vivian Perlis, oral history, Yale University, music.

ΠΕΡΙΛΗΨΗ

«Leo Ornstein: Άνοδος και Πτώση μιας Ξεχασμένης Ιδιοφυΐας
Πρώιμος Μοντερνισμός, Εβραϊκά Στοιχεία και Στυλιστική Εξέλιξη στο Πιανιστικό του Ιδίωμα»

Στόχος της παρούσας έρευνας είναι να αναδειχθεί η ιστορική σημαντικότητα και στυλιστική ποικιλότητα της μουσικής του Leo Ornstein. Στη διάρκεια της διδακτορικής μου έρευνας, παρουσίασα και ερμήνευσα πολλά από τα πιο χαρακτηριστικά έργα του Ornstein για πιάνο. Επίσης, ερεύνησα και επεξεργάστηκα εκδοθέν και ανέκδοτο υλικό του έργου του. Ορόσημο στην έρευνά μου αποτελεί η απροσδόκητη ανακάλυψη μίας προηγουμένως άγνωστης αδημοσίευτης σονάτας για πιάνο του Ornstein, με τίτλο *Sonata pour le Piano (1917)*. Εντόπισα την παρτιτούρα στη συλλογή "Leo Ornstein Papers" της Μουσικής Βιβλιοθήκης Irving S. Gilmore, του Πανεπιστημίου του Γέιλ (Yale University). Στην παρούσα διατριβή παρουσιάζω την πρώτη έκδοση και εκτενή ανάλυση αυτού του αξιοσημείωτου αδημοσίευτου έργου. Με βάση τα παραπάνω, προτείνω νέες μεθόδους ανάλυσης της μουσικής του Ornstein, χρησιμοποιώντας τα ακόλουθα: φθογγικά σύνολα, τροπική ανάλυση, contour segmentation και μοτιβικά κύτταρα, με σκοπό να προσδιορίσω τα βασικά στοιχεία του πιανιστικού του ιδιώματος. Η συγκριτική ανάλυση των έργων του για πιάνο και τα επαναλαμβανόμενα μοτίβα των πιανιστικών του συνθέσεων, καλύπτουν ένα εύρος από τον μοντερνισμό μέχρι τον νεορομαντισμό, εμποτισμένα με Εβραϊκά στοιχεία, και τα οποία καθορίζουν τα χαρακτηριστικά και την εξέλιξη του έργου του. Επιπλέον, για να αποκτήσω εις βάθος κατανόηση της ζωής, του έργου και της κληρονομιάς του Leo Ornstein, πήρα συνέντευξη από τον γιο του, Severo Ornstein, ο οποίος είναι ο πλέον σημαντικός συντηρητής, επιμελητής και εκδότης ολόκληρου του έργου του πατέρα του, αλλά και πρωτοπόρος ο ίδιος, καθώς επινόησε το "Mockingbird", το πρώτο πρόγραμμα μουσικής σημειολογίας για υπολογιστή σε γραφικό περιβάλλον, το 1980. Τέλος, εξετάζω τους πολύπλευρους λόγους για την άνοδο του Ornstein στη φήμη, και την μετέπειτα απόσυρσή του

από την διεθνή μουσική σκηνή, διερευνώντας την καριέρα του ως πιανίστα και συνθέτη και τη σχέση του με το κίνημα του πρώιμου μοντερνισμού στην Αμερική, κατά την περίοδο 1910–1920.

Λέξεις κλειδιά: Leo Ornstein, A Morning in the Woods, Wild Men's Dance, Three Moods, Solitude, To A Grecian Urn, Piano Quintet, Sonata No. 4, Impromptu, A Reverie, Three Fantasy Pieces, Metaphors, Mother 'o Mine, Severo Ornstein, Sarah Cahill, Mockingbird, The Leo Ornstein Papers, τρόποι, δρόμοι, Χιτζάζ, Mi Sheberach, Ποιμενικός, Εβραϊκά, Σλαβικά, Ανατολική Ευρώπη, Μέση Ανατολή, Ρωσική Ορθοδοξία, πιάνο, μοντερνισμός, φουτουρισμός, οριενταλισμός, tone-cluster, πολυμετρία, πολυρυθμία, ντανταϊσμός, Ουκρανία, Ρωσία, πογκρόμ, Henry Cowell, Charles Ives, Stravinsky, Bartók, Schoenberg, Messiaen, Calvocoressi, Ιουδαϊσμός, κάντορας, ψάλτης, θεωρία συνόλων, contour analysis, contour segment, Allen Forte, Michael Friedmann, Χρυσή Εποχή του Πιάνου, Michael Broyles, Vivian Perlis, προφορική ιστορία, Πανεπιστήμιο Γέιλ, μουσική.

INTRODUCTION

> *"I refuse to bog myself down in any theory. If I did, I would discard those things and simply say they don't fit within the theory that I've established. I think of music as totally different art than some intellectual concept."* [1]

There is an inherent irony in writing a dissertation about a composer who despised analysis and theory as a means of understanding music. This is one of the reasons why my research focuses on both interpretational and theoretical aspects of Leo Ornstein's piano works. My goal is to investigate his compositional process and his ideas about music. This would not have been possible without the help of his son, Severo Ornstein, who invited me to his house in San Francisco for an interview and granted me access to Leo Ornstein's personal paper archives at Yale University. Interviewing Severo provided crucial information about Leo Ornstein's composing routine, artistic choices, way of thinking and, most importantly, his raison d'être. After all, Severo dedicated his life to preserving, transcribing, and promoting his father's music. In UC Berkeley, I interviewed Sarah Cahill who met Ornstein near the end of his life and had profound conversations about music with him. This provided a vital perspective in regards to his artistic choices. Finally, searching through Ornstein's manuscripts in the Leo Ornstein Papers archive[2] gave me a unique insight into his pre-compositional process and led me to the discovery of a new work: *Sonata pour le Piano (1917).*

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[1] Vivian Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," *Archives of OHAM (Oral History, American Music) at Yale University*, 1977, 44.

[2] The Leo Ornstein Papers archive at Yale University- Irving S. Gilmore Music Library is a collection containing sketches, manuscript scores, and published editions of Ornstein's musical compositions, including songs, piano pieces, chamber music, and orchestral works. The Papers also hold photographs, programs, and reviews, biographical clippings, and prose writings by Pauline Ornstein. Only part of this very large collection has been archived. The collection was founded in 1976 and it currently includes 24 boxes with tens of thousands of scores. (Thomas Crumb and Cindy Clark, "Archives at Yale: The Leo Ornstein Papers," Yale University Music Library, 2021, https://archives.yale.edu/repositories/6/resources/10614.)

Trying to pigeonhole Leo Ornstein's compositional technique would be a daunting task for any musicologist. Harmonic language, form, and style are held together by the sheer force of Ornstein's personality, pianism, and consistency of emotional affect. He usually does not meticulously work out the architecture and theoretical framework of his piano works. Musical themes flow organically in a rhapsodic manner, apparently without a predetermined scheme, as they do in the works of Charles Ives. In a review published in 1915, music critic Lawrence Gilman described the structure of Ornstein's experimental works as "wildly anarchical," yet these "amazing pieces"[3] exuded an "extraordinary rhythmic energy, a demoniacal intensity of movement" and "excited the nerves like a drumbeat."[4]

It is easy for a musical genius like Ornstein to demonize music theory, as he lived and breathed music. He had absolute pitch and the ability to improvise in any style at will. The notes seemed to pour from his mind onto the piano effortlessly, as if he had already composed an entire piece in his mind. As a researcher, it is my obligation to find patterns and stylistic elements in his music and, in order to do that, I decided to use the tools of set theory, form analysis, contour segment analysis, post-tonal harmony, as well as my intuition as a performer who has delved deep into Ornstein's piano repertoire.

His harmonic and melodic language is of particular interest to me, as it captivated my attention from the first time I heard some of his works in high school. As a composer myself, I always wanted to explore how Ornstein forms such dense and complex harmonies, while maintaining lyricism and expression. This is the main reason why I believe he stands out from other modernists of his time, such as Ives and Cowell.

The most intriguing traits of Leo Ornstein's music are his wide range of compositional styles and his unique piano writing. As opposed to many modernists, he detested the idea of composing in a single style: "If I happen to

[3] Lawrence Gilman is referring to *Dwarf Suite S052.* (Lawrence Gilman, "Drama and Music: Significant Happenings of the Month. Shakespeare in the New Manner. The Amazing Marriage of Mr. Leo Ornstein and the Muse," *The North American Review* 201, no. 713 (1915): 596, https://www.jstor.org/stable/25108434.)
[4] Ibid.

hear something stylistically entirely different, I don't hesitate at all to put it down. My only criterion is this: Is it really good music? Does it say something?"[5]

Music critics and biographers describe his experimental compositions as "futurist,"[6, 7] "ultra-modern,"[8] "anarchist,"[9] and "cubist."[10] His expressive style was initially received as a betrayal to his modernist fan base, but eventually he was celebrated as a lyric poet, seething with emotion.[11] Most authors organize his music into three distinct periods: early, experimental, and expressive.[12] Others even add "mixed" as a fourth category for his late works, because they sound both experimental and expressive at the same time. I think that this sort of distinction is confusing and needs to be redefined. The concept of a time-based taxonomy of his oeuvre is problematic. In the course of my dissertation, it will become obvious that, at any given time in his compositional output, Ornstein exhibits a combination of the following elements:

1) Traditional:[13] simple phrase structure, traditional form, romantic melody, impressionistic texture, diatonic harmony, Baroque-like ornamentation.
2) Folk: (014) 3–3 "Hebraic" trichord, (0145) 4–7 Hitzaz tetrachord, Hebraic modes, longer wailing melodies.
3) Modern: interval-based atonality, chromatic pitch saturation, tone-clusters, polytonality, rhythmic complexity (polyrhythms, mixed meter, polymeter).

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[5] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 44.
[6] M Broyles and D Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, ACLS Humanities E-Book (Indiana University Press, 2007), 166.
[7] See also Chapter 3.1
[8] Vivian Perlis and Libby Van Cleve, *Composers' Voices from Ives to Ellington: An Oral History of American Music* (New Haven and London: Yale University, 2005), 103.
[9] Frederick H Martens, *Leo Ornstein: The Man - His Ideas - His Work* (New York: Breitkopf and Hartel inc., 1918), 14.
Jr Edmund Wilson, "The Anarchists of Taste: Who First Broke the Rules of Harmony, in the Modern World?," *Vanity Fair*, 1920, 3.
Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 347.
[10] Perlis and Cleve, *Composers' Voices from Ives to Ellington: An Oral History of American Music*, 152.
[11] Carol J. Oja, *Making Music Modern: New York in the 1920s*, *Making Music Modern: New York in the 1920s*, 2010, 243, https://doi.org/10.1093/acprof:oso/9780195058499.001.0001.
[12] Michael Bonney, "The Compositional Transformation and Musical Rebirth of Leo Ornstein" (University of North Texas, 2011), 1, 3.
[13] Traditional in context to most 20th century music. Impressionism and diatonicism was considered modern in the 1910s.

Furthermore, his melodic language makes use of recurring motivic cells that can be described as the building blocks of his unique sound, his "signature." In my dissertation, I will be identifying 5 basic motifs that highlight his expressive tools: the turn motif, the anticipation motif, the leap motif, the codetta motif and the Hebraic motivic cells (014) and (0145). Through comparative c-seg analysis, I will show how Ornstein transforms these motifs and incorporates them to great effect.

My view as a researcher and performer is that the synthesis of the aforementioned elements *is* his style. Therefore, I would like to refer to his style non-chronologically with the following terms: "diatonic," "experimental," and "expressive."[14]

What differentiates each idiom is the proportions of the aforementioned elements. In his diatonic style, the traditional elements of texture and phrasing outweigh the rare moments of atonality and dense pitch saturation. His experimental style is atonal and characterized by extreme pitch saturation, rhythmic complexity, interval-based atonality, and at the same time, simple form and phrasing. Finally, his expressive works would be in contrast to his more dissonant and percussive writing style, which dominated his more experimental style.[15] His expressive style is an eclectic fusion of folk-inspired modal writing, impressionistic tone-poem-like harmony, chromatic pitch saturation, simple phrasing, traditional form, and dramatic melody.

Ornstein's personality was fueled by a constant restless energy. This is evident throughout his music and in its variety, but also in his life. He was constantly seeking new directions. This is reflected in the initial burst of originality in his writing, as well as in his eventual "rejection of its extremes. His worst fear was of repeating himself."[16]

[14] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices,* 392.
[15] Broyles and Von Glahn, 356.
[16] Severo Ornstein, "About Leo Ornstein: Ornstein's Personality and Attitudes about Music," poonhill, accessed May 3, 2021, http://poonhill.com/personality.html.

METHODOLOGY

All page numbers and measure numbers refer to the official scores published by Severo Ornstein on his site: "poonhill.com."[17] The page numbers correspond to the score page numbering and not the PDF imaging software page number. Unfortunately, these scores have no measure numbers; therefore, I will be using the following format: p.1/ m.1 for page 1- measure 1.

In order to describe modes, I will be using a format describing step sequences as series half-steps {½}, whole-steps {1}, and augmented 2nds {1½} e.g.: Ionian mode is {1, 1, ½, 1, 1, 1, ½}, Byzantine mode is {½, 1½, ½, 1, ½, 1½, ½}.

For whole-tone collection labeling, I will be using the following:

1) WT0 for [C, D, E, F#, G#, A#]
2) WT1 for [C#, D#, F, G, A, B]

For octatonic collection labeling, I will be using following:

1) OCT (0,1) for [C, C#, D#, E, F#, G, A, Bb]
2) OCT (1,2) for [C#, D, E, F, G, Ab, Bb, B]
3) OCT (0,2) for [C, D, Eb, F, F#, G#, A, B]

For excerpts with tertian harmony, I will be using the following chord labels:

C	C, E, G
Cmin	C, Eb, G
C+	C, E, G#
C^{o}	C, Eb, Gb
$C^{7(no3)}$	C, G, Bb
C^{sus2}	C, D, G
C^{7}	C, E, G, Bb
C^{maj7}	C, E, G, B

[17] All scores can be found on the website tab "List of Works"
(Severo Ornstein, "Scores: List of Works," poonhill, accessed May 9, 2021, https://poonhill.com/list_of_works.htm.)

Cmin7	C, Eb, G, Bb
$C^{min^{maj7}}$	C, Eb, G, B
C^{o7}	C, Eb, Gb, Bbb
$C^{ø7}$	C, Eb, Gb, Bb
$G^{7(b5)}$	C, E, Gb, Bb
$C^{maj7(b5)}$	C, E, Gb, B
$C+^{maj7}$	C, E, G#, B
C^{6}	C, E, G, A
$C^{6/9(no5)}$	C, E, A, D
$C^{(add2)}$	C, D, E, G
C^{9}	C, E, G, Bb, D
$C^{maj7(9)}$	C, E, G, B, D
$C^{min^{maj9}}$	C, Eb, G, B, D
C^{7b9}	C, E, G, Bb, Db
$C^{7\#9}$	C, E, G, Bb, D#
$C^{\#9}$	C, E, G, B, D#
C^{+9}	C, E, G#, Bb, D
$C^{6/9}$	C, E, G, A, D
$C^{9\#11}$	C, E, G, Bb, D, F#
$C^{7b9\#11}$	C, E, G, Bb, Db, F#
$C^{7b9\#9}$	C, E, G, Bb, Db, D#
$C^{maj7b9\#11}$	C, E, G, B, Db, F#
$C^{9/13}$	C, E, G, A, Bb, D

Figure 1.1: Chord identification table

The format of my pitch set analysis will be based on Allen Forte's *The Structure of Atonal Music*[18] and Joseph N. Straus' *Introduction to Post-Tonal Theory.* [19] When describing normal form or ordered pitch letter names, I will be

[18] A Forte, *The Structure of Atonal Music*, Reprint, Yale [Paperbacks] (New Haven and London: Yale University Press, 1977), https://books.google.com/books?id=j9aV2JYHY4AC.
[19] J N Straus, *Introduction to Post-Tonal Theory: Fourth Edition*, 4th ed. (London: W.W. Norton, 2016), https://books.google.com/books?id=AwZ4DAAAQBAJ.

using brackets: [ ]. For prime form, I will be using parentheses: ( ), followed by the corresponding Forte catalog number. As an example, the trichord set presented below will be analyzed as follows:

Normal Form: [3, 4, 9]

Prime Form: (016) 3–5

Pitch set in the order it is first instantiated in the score: [A, D#, E]

Register-specific pitch set: [A4, D#5, E5]

Figure 1.2: Pitch set example

For contour segment analysis, I will be using Michael Friedmann's contour segmentation method,[20] specifically his Contour Adjacency Series (CAS) and his Contour Class (CC) methods. CAS is an ordered series of direction changes that uses + and - symbols corresponding to moves upwards and downwards within a c-seg.[21] For CAS c-segs with repeated notes, I will also be using "=". In order to account for other properties that give a melodic contour its shape, a reference to CC is also needed. The CC examines the relative registral positions between pitches within a c-seg. If the number of all pitches in a melodic segment is n, then the highest pitch is represented by n-1 and the lowest pitch is represented by 0.[22] This gives a global view of all the pitches in the set with regard to their registral position.[23]

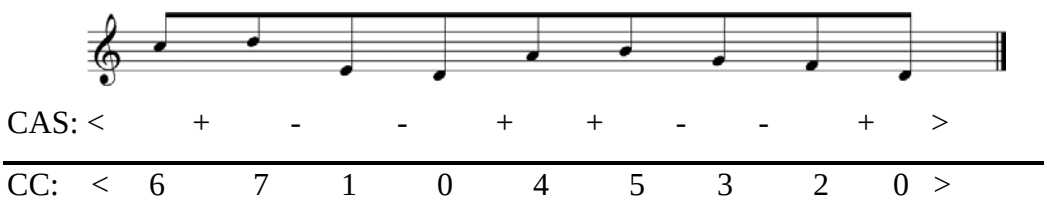

Figure 1.3: Contour segment

[20] Michael L Friedmann, "A Methodology for the Discussion of Contour : Its Application to Schoenberg's Music," *Journal of Music Theory* 29, no. 2 (1985): 223–48.
[21] Friedmann, 246.
[22] Ibid.
[23] Kristen M. Wallentinsen, "A Hierarchical Approach to the Analysis of Intermediary Structures Within the Modified Contour Reduction Algorithm" (University of Massachusetts Amherst, 2013), 3, http://scholarworks.umass.edu/theses/1160/.

In Figure 1.3, the contour of the passage would have a CAS of <+, -, -, +, +, -, -, +>, with a vector of <4,4> that indicates that the number of moves upward and downward are equal. The CC is <6-7-1-0-4-5-3-2-0>, indicating that the lowest note D4 is 0 and the highest note D5 is 7.

In my analysis, I will also be using color-coded graphs that visually summarize my segmentation and textual analysis. These graphs will be used as a tool to analyze entire works in depth, but also for comparative research. For analysis of form and motivic structure, I will be using arc diagrams. In these arc diagrams, I will also be indicating the length of each section and subsection, and how motifs are developed. All graphs were made using Adobe Photoshop and Adobe Illustrator.

The Severo Ornstein interview transcript on Chapter 5 has been edited to reflect the text of the interview as clearly as possible, to capture the spontaneity of Severo's speech and to convey his feelings. Questions and answers have been taken out of order to maintain thematic consistency. Unrelated material, redundancies, false starts, and monosyllabic filler remarks have been carefully eliminated, depending on the context. Verb tenses have been made consistent and errors of subject-verb agreement have been corrected. Bold fonts are used for emphasis, ellipses for interruption and dramatic pauses, while brackets contain indications of emotion, body language, and information not specifically mentioned. Footnotes include clarifications, fact-checks, references, and comments. The overall format has been based on academic guides for oral history transcription, published by Columbia University[24] and the Minnesota Historical Society.[25]

For bibliography and footnotes, I will be using Chicago Manual of Style 17th Edition. When referring to my own interview with Severo Ornstein, in Chapter 5, I will be using the following format: See Chapter 5.2- "Leo the Pianist."

[24] Liz H. Strong, *Oral History Transcription Style Guide*, ed. Caitlin Bertin- Mahieux Mary Marshall Clark (Columbia University Center for Oral History Research, 2018).
[25] "Editing an Oral History Transcript," *Minnesota Historical Society*, n.d., https://www.mnhs.org/library/learn/collections/oral-history.

Finally, my analysis also focuses on performance aspects and pianism; therefore, I will be referring to piano repertoire, performance practice, piano pedagogy, and neuroscience of music. In certain passages, I will be including advice for interpretation and proper fingering, based on my experience as a performer of Leo Ornstein's works and taking into consideration his own ideas about how his music should be performed.

CHAPTER 1
LIFE, IDEAS AND COMPOSITIONAL METHOD

1.1: Biographical Overview

Leo Ornstein, the celebrated Russian-American pianist-composer, had an extraordinary career, which started in the nineteenth century as a child prodigy and spanned the entire twentieth century. He was among the longest-lived composers and was musically active until the early 90s.[26]

Leo Ornstein was born "Lev Ornshteyn" in Kremenchuk, an important industrial city in the central province of Poltava, under Imperial Russian rule. Ornstein mentions his birthdate as 1895.[27] However, Michael Broyles[28] and Severo Ornstein[29] both agree that he was born in 1893. The only official document verifying this date is the birth certificate of his niece Madeline, the daughter of his twin sister Lisa. This document lists his twin sister's year of birth as 1893.[30] He grew up in a musical environment, his father being a Jewish cantor, and his brother-in-law, Jacob Titiev, a violinist, who encouraged and guided him in his studies and his early career.[31] His talent was recognized by prominent musicians, such as Josef Hofmann[32] and Ossip Gabrilowitch.[33] At the age of nine Ornstein was accepted at the Rubinstein Conservatorium in St. Petersburg,[34] which he attended for only two years, between 1903–1906. A bloody wave of pogroms forced the Ornstein family to emigrate to the United States in 1907, following an unprecedented surge of immigration by Eastern European Jews into the United States.[35]

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[26] Ornstein died in 2002, at the age of 108.
(Midgette Anne, "Leo Ornstein, 108, Pianist and Avant-Garde Composer," *New York Times*, 2002.)
[27] See Chapter 5.5- "Personality" (Interview with Severo Ornstein)
[28] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 3.
[29] See Chapter 5.5- "Personality" (Interview with Severo Ornstein)
[30] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 3.
[31] Ibid, 6.
[32] Ibid, 10.
[33] Ibid, 14.
[34] Ibid.
[35] Ibid, 19.

In New York he studied at the Institute of Musical Art (1906–1910), later The Juilliard School, with Bertha Fiering Tapper, who became a true mentor to the young prodigy and coached him with great devotion and knowledge for an international career.[36] She accompanied him in 1910 on his first European tour and prepared him for his New York début, in which he played a conventional program that included standard piano repertoire. However, in the years to come and until 1925, he went on to dazzle audiences on both sides of the Atlantic, including in his recitals works of Albéniz, Schoenberg, Bartók, Debussy, Scriabin, Ravel, Franck, and Busoni, while also presenting his own radical compositions, which frequently invoked public outrages among concert-goers and made him an "enfant terrible." He eventually became one of the most important figures of early American modernism, and he was considered as an equal to Stravinsky and Schoenberg.[37]

In 1918 he married Pauline Mallet-Prevost, a fellow student from Bertha Feiring Tapper's piano class. She was the daughter of a wealthy and prominent attorney in New York who came from a family with a long and distinguished heritage.[38] Despite their enormous differences in social and religious backgrounds, they remained together for almost 67 years.[39] According to Severo Ornstein, Pauline was, without any question, the person who had the greatest impact on Ornstein's long life.[40]

At the height of a successful and celebrated concert career, in 1925, Ornstein stopped performing, partly because he wanted to concentrate more on composing and partly because he had little desire to participate in the modernist movement that had taken hold in the United States.[41] Another reason Ornstein withdrew from his active concert career was that he felt exhausted and under great stress, apparently due to the weight of his fame and notoriety. From that point on,

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[36] Severo Ornstein, "About Leo Ornstein," accessed May 9, 2021, http://poonhill.com/leo_ornstein.html.
[37] R B Elder, *Cubism and Futurism: Spiritual Machines and the Cinematic Effect*, Film and Media Studies (Waterloo, Ontario, Canada: Wilfrid Laurier University Press, 2018), 362.
[38] Ibid, 111.
[39] Until Pauline's death in 1985.
[40] Ornstein, "About Leo Ornstein."
[41] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 185.

he gradually faded into obscurity. During his 33-year-long absence from the music world, Leo and Pauline founded the Ornstein School of Music in Philadelphia, where they directed and taught until their retirement in 1953.[42,43] They lived a fairly reclusive life and would work together daily, with Pauline becoming Ornstein's assistant and scribe. All of his finalized manuscripts after the 1920s were actually written by Pauline.[44]

Then in the 1970s, during a revival of interest in American music of the earlier part of the twentieth century, they were located by music historian Vivian Perlis, who found them living in a Texas trailer park.[45] With Ornstein's rediscovery came a new burst of productivity. He composed many piano works in his eighties, such as *A Morning in the Woods S106*, Sonata No. 5 – "Biography" S361 and Sonata No. 6 S362.

In 1985, Ornstein's beloved wife Pauline died and, a few years later, he ceased composing altogether.[46] He had depended on her not only as a loving, loyal and lifelong companion, but also as an amanuensis, critic, and motivator. Sometime after her death he began a daily musical journal of piano miniatures (*Six Journal Pieces S330*), which gradually increased in size and eventually became a part of his powerful Sonata No. 7 S363.[47]

Leo Ornstein's last work, Sonata No. 8 S364a, was written when he was 97 years old. This work is programmatic and suggests an autobiographical element[48]. As Marc-André Hamelin has pointed out, this work is "coloured by a lifetime's worth of experience."[49]

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[42] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*.
[43] M Broyles, *Mavericks and Other Traditions in American Music* (New Haven and New York: Yale University Press, 2004), 81.
[44] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 36.
[45] Vivian Perlis, "Leo Ornstein: The Last of the Original 20th Century Mavericks," New Music USA, 2002, https://nmbx.newmusicusa.org/leo-ornstein-the-last-of-the-original-20th-century-mavericks/20/.
[46] As indicated in Severo's catalogue of Leo Ornstein's opus, Sonata No. 8 was his last work and was written in 1990. (Ornstein, "Scores: List of Works.")
[47] Ornstein, "About Leo Ornstein."
[48] The movements of Sonata No. 8 suggesting biographical elements have the following titles: I. "Life's Turmoil and a Few Bits of Satire", II. "A Trip to the Attic – A Tear or Two for a Childhood Forever Gone", III. "Disciplines and Improvisations."
[49] Maria Suzanne Vassilev, "Leo Ornstein's Piano Sonatas No. 4 and No. 8" (University of Miami, 2010), 32.

On February 24, 2002 Leo Ornstein died peacefully in Green Bay, Wisconsin at the age of 108.[50] His son, Severo, spent years transcribing, digitizing and cataloguing his father's entire opus, which amounted to over 1700 pages of music,[51] and made all of the works publicly accessible online in his site "poonhill.com."[52]

1.2: Compositional Process

Composition was never an activity of discipline for Ornstein, but rather a spontaneous intuitive process. He did not arduously copy out exercises or exhaustively work on musical ideas like Beethoven. Ornstein frequently mentioned in interviews how musical ideas simply "came to him," and that he "eschewed intervening" with his train of thought.[53] Many of his most effective experimental works, such as *Three Moods S005* and *Impressions of Notre Dame S056*, were through-composed, had an improvisational quality and were written in a spur of the moment. *Dwarf Suite S052*, for example, one of his first experimental works, was composed in a day. [54] The aforementioned works are great examples of Ornstein's tendencies toward chromatically saturated tone-clusters, interval-based atonality, irregular barring, focus on rhythmic energy, but also an avoidance of extended counterpoint.[55] The majority of his experimental compositions are miniatures in binary form[56] that are devoid of simultaneous overlapping melodic lines. This early experimental style ultimately led to

[50] Newmusicbox, "Obituary: Composer and Pianist Leo Ornstein," New Music USA, 2002, https://nmbx.newmusicusa.org/OBITUARY-Composer-and-Pianist-Leo-Ornstein/.
[51] Rick Schultz, "A Forgotten Composer Gets New Life," The Orange County Register, 2013, https://www.ocregister.com/2013/11/11/a-forgotten-composer-gets-new-life/.
[52] Severo Ornstein, "Scores: About the Notation," Poonhill, accessed May 2, 2021, http://poonhill.com/about_the_notation.htm.
[53] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 289.
[54] Vivian Perlis, "The Futurist Music of Leo Ornstein," *Music Library Association* 31, no. 4 (1975): 737, https://www.jstor.org/stable/896806.
[55] Denise Von Glahn and Michael Broyles, "Musical Modernism Before It Began: Leo Ornstein and a Case for Revisionist History," *Journal of the Society for American Music* 1, no. 1 (2007): 38, https://doi.org/10.1017/s1752196307070022.
[56] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 191.

difficulties when dealing with larger forms[57] that required material development and an overarching formal scheme. Ornstein rejected working on theory and composition as a systematic principle. As a young student in the Damrosch Institute (later renamed as Juilliard), he disliked and avoided working on theory and harmony courses with his teacher Percy Goetschius.[58]

Ornstein suffered from earworms, a psychological phenomenon where one hears a piece of music repeated in their mind over and over again. Musical ideas crowded Ornstein's head and kept tormenting him until he wrote them down on paper. In his interview with Vivian Perlis, he confessed that these recurring musical thoughts did not constitute "a voluntary act": "How are you going to exclude music wandering into your head and just churning around?"[59] Severo admitted in my interview that his father "was afraid of forgetting, but he was also bothered by things that would not leave." He was so absorbed by the incessant music in his head that the only way for his earworm to disappear was for him to write it down, as once it was on paper, it was "preserved."[60] An interesting account was described to me by Severo about the time when *Nocturne and Dance of the Fates – SO 821–822* was finally recorded. This work had been premiered by the St. Louis Symphony Orchestra, but unfortunately Leo Ornstein had not been present. In later times, after he was "rediscovered" in the 1970s, the Louisville Symphony Orchestra recorded it. "He had never heard it before. After listening to the recording, he said to me: 'I must never do that again! It drove everything else out of my head and it just stuck with me for a week. I couldn't write at all!'"[61]

The kind of experiences described by Ornstein may have been a form of musical hallucinations. This subject has been reviewed by Oliver Sacks in his book *Musicophilia*, where he explains that this is a physiological and not a

[57] Ibid.
[58] Ibid.
[59] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 2.
[60] See Chapter 5.3- "Leo the Composer" (Interview with Severo Ornstein)
[61] Ibid.

psychotic phenomenon of the human brain.[62] Musical hallucinations can be original compositions or memories created by the subconscious mind and are not exclusive to musicians, as they also manifest themselves in people who are deprived of sensory input, such as the deaf. Such experiences are associated with "striking activity in several parts of the brain: the temporal lobes, the frontal lobes, the basal ganglia and the cerebellum- all parts of the brain normally activated in the perception of 'real' music."[63]

When Ornstein started getting commissions for larger works, he was "aggressively" encouraged by his wife to get some "downtime," that is, to retreat from stressful piano tours and focus more on composing.[64] He developed a daily compositional routine where he would first write down the music he heard in his mind and then work out details at the piano: "Most of the things I really write away from the instrument, and then I come to verify some things once in a while."[65] When I interviewed his son Severo, I spent quite some time inquiring about his father's compositional method. When Ornstein sat down and composed, he just needed a few notes to remind him how to carry it along. His "totally inscrutable hen-tracks on the page, were enough for him to get the basic stuff," Severo noted. "But there was a tremendous amount of filling out that had to be done."[66] Leo Ornstein would always rely on his wife, Pauline, for copying and tidying up drafts during his compositional process. "When he began writing a piece it would be just scratches; you would look at it and think: 'There is no music here.' Then, they would slowly but surely fill it in. She was certainly his critic, but she just loved everything he did. He was always fiddling and trying to make something better as they went along. She was very impatient with that, because he was such a perfectionist that it wasn't going anywhere."[67] An example of this process can be seen in the manuscripts below.

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[62] Oliver Sacks, *Musicophilia: Tales of Music and the Brain* (New York, Toronto: Alfred A. Knopf, 2007), 52.
[63] Sacks, 52.
[64] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 191.
[65] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 36.
[66] See Chapter 5.8- "Leo and Pauline: Partners in Music and in Life" (Interview with Severo Ornstein)
[67] Ibid.

The manuscript in Figure 2.1 is in Leo Ornstein's handwriting. The entire excerpt appears to have been written in haste, and there is a lack of clefs, time signature, key signature (a B Aeolian/ D major key center is clearly established), barlines, slurs, and expression markings. The main musical idea is a right-hand melody that unfolds isochronously in quarter notes, over an accompaniment with a clashing compound metric feel that is partially filled in.

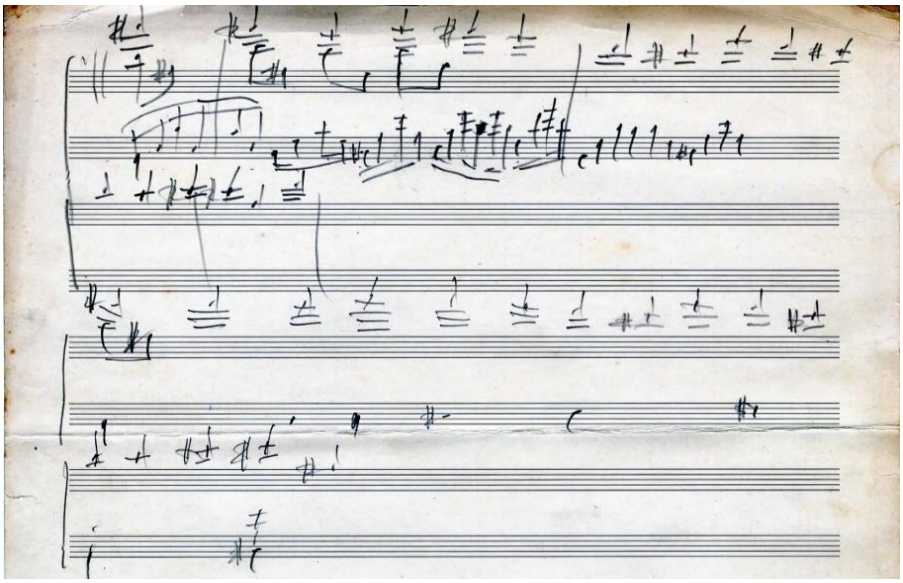

Figure 2.1: Manuscript of an outline by Leo Ornstein

In the same box of Leo Ornstein's papers at Yale University, I found a manuscript of Pauline in much more legible and tidy handwriting. In the page below, she transcribed two drafts of the same melody (from Figure 2.1), added in time and key signatures, and filled in details that were left out by Ornstein, such as the 8^{th}-note pattern in the right-hand alto voice and a complete left-hand accompaniment. This shows that, while Ornstein would initially outline the pitches of a musical idea, the exact metric structure and accompaniment would take form gradually, as the drafts progressed.

Figure 2.2: Manuscript of a copy by Pauline Ornstein

Ornstein did not rely solely on his impeccable inner ear. Frederick Martens, Ornstein's first biographer, mentions that when he was composing away from the piano, he developed particular rhythmic and harmonic schemes.[68] Unfortunately, very little is known about the specifics of his harmonic and rhythmic approach. During my research at the Ornstein Papers archive at Yale University, I came across certain interesting notes by Ornstein, where he plotted polytonal harmonies and their possible resolutions.

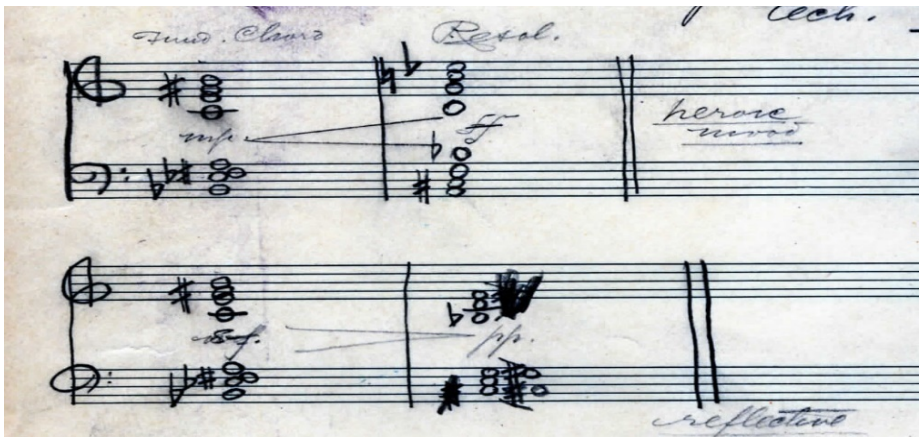

Figure 2.3: Manuscript of harmonic progressions 1

[68] Martens, *Leo Ornstein: The Man - His Ideas - His Work*, 41.

The first chord is labeled as “Fund. Chord” (fundamental chord) and the second chord is labeled as “Resol.” (resolution). Each harmonic resolution is associated with a certain mood. When the “fundamental” chord is resolved outwards to an open spacing that is rich in perfect 4^{ths}, it is labeled as having a “heroic mood.” When the same chord, in the second staff above, is resolved inward in a narrowly spaced tone-cluster, the progression is associated with a “reflective quality.”

In another instance, he attributes the quality of “agony” to a polytonal chord progression that moves in parallel ascending motion (Figure 2.4). Whether these progressions were exercises for developing his harmonic language is unclear.

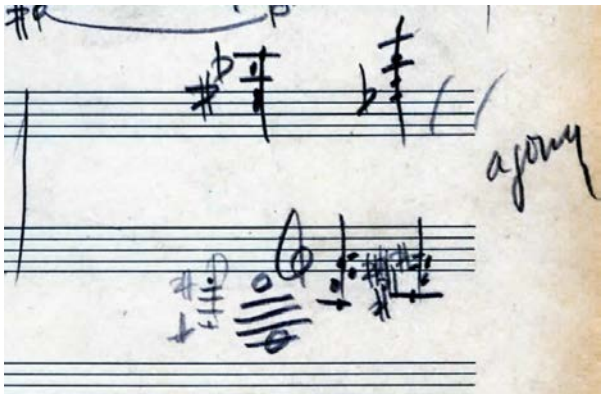

Figure 2.4: Manuscript of harmonic progressions 2

I also found sketches of Sonata No. 4 S360 that consisted of rhythmic and melodic ideas. Some passages were not included into the final edition, particularly a finale section labeled “in E major,” while others were expanded into longer sections.

Finally, Ornstein consciously tried to avoid repeating himself unnecessarily. In an interview with Vivian Perlis, he dismissed self-imitation as “easy” and “dangerous,” while embracing stylistic variety in his Piano Quintet S610: “I almost made an effort to see that I avoided stylizing myself. And that is why you have these large variations, 'the Three Moods' of the Quintet, get it? Two

totally different ends of the stick, you might say. And I've enjoyed that very much."[69]

1.3: Improvisation

Ornstein was an avid improviser from a very young age. He impressed adults with his tremendous ear and his unique harmonic language. Jacob Titiev was Ornstein's brother-in-law and the most important person in his early life. He not only recognized his genius and promoted his career, but also saved him from the pogroms.[70] He recalled that Ornstein, then a 5-year-old boy, climbed up on the piano bench and started banging on the keyboard, playing dissonant chords. He "never stopped on a discord. But if he happened to strike an accord, he kept on striking the same accord many a time. Then he wandered off again and did not stop until he struck a proper accord again."[71] In other words, Ornstein would spend hours as a young child trying to refine his harmony, by playing dissonant chords and trying to resolve them with his internal ear.

On another account, Titiev "played a tune on the violin for the young prodigy who was able to easily imitate it on the piano, even improvising an accompaniment for the melody."[72] After that, Titiev took his violin and played the same few simple bars again before Leo, asking him to then play for his family. Of course, "they could not believe it was his own work"[73] and asked Titiev with disbelief whether he had shown the young Ornstein how to play it. From this account, it is evident that Leo Ornstein was gifted with perfect pitch and had the inherent ability to harmonize on the spot, without training. [74]

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[69] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 34.
[70] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices,* 21.
[71] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 8.
[72] Ibid.
[73] Ibid.
[74] Ornstein had no piano lessons prior to meeting Titiev. In fact, Titiev took the responsibility of finding teachers for the young Ornstein. (Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 8.)

Despite these impressive skills, Ornstein refrained from improvising during his compositional process. Valuing musical experience as his aesthetic epicenter, he challenged the nature of improvisation as "terribly haphazard" and failing to convey a sense of concrete organization to an audience.[75] In his interview with Vivian Perlis, Ornstein was asked about the difference between musical ideas heard in his mind (musical hallucinations) and improvisation. As a response, Ornstein was adamant about distinguishing improvisation from his initial subconscious compositional process, which he viewed as a gradual organization of musical material in one's mind.[76] He then posed the following rhetorical question: "I've been very much interested as to what it is that we really listen to in music. What is it that really happens when we crowd ourselves into a hall with our elbows against the next man, listening to something that lasts maybe twenty-five or thirty minutes?"[77] He concludes that what holds our attention while listening to a piece of music is, more than anything else, a satisfaction in hearing a work that is based on organization, logic, and clarity. [78]

Improvisation also represented a way of exploring alternative possibilities in teaching. During the time Ornstein was teaching at the Philadelphia Musical Academy in 1925,[79] he taught the course "Language and Literature of Music." Designed for "the non-musician, it focused on how to listen and was meant to be interactive. Because of Ornstein's ability to play virtually anything on the piano, the student would have the opportunity to go back and rehear something, just as he could reread a paragraph in a book."[80] Ornstein played passages of the classical and modern repertoire, and would then improvise alternative possibilities of harmony and melody. The students were subsequently asked to choose which version matched the correct stylistic idiom. Ornstein created an entirely original

[75] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 8.
[76] Ibid.
[77] Ibid.
[78] Ibid.
[79] Broyles sets this date in 1924, but the official Zeckwer-Hahn Philadelphia Musical Academy catalog has Ornstein listed as a teacher later in 1925- 1926.
(Zeckwer-Hahn Philadelphia Musical Academy, "Philadelphia Musical Academy: School Catalog 1925-1926," 1926, https://www.ebooksread.com/authors-eng/philadelphia-musical-academy/school-catalog-1925-1926-lih/1-school-catalog-1925-1926-lih.shtml.)
[80] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 216.

method which enabled a group of listeners to experience "through his technical equipment the creation of various musical forms."[81] By making such choices, students developed a very refined musical sensitivity.[82,83]

1.4: Literary Influences

Ornstein also drew inspiration from literature and prose writing. In some of his works, he included poems and prose that he had written himself. He believed in the power of abstraction, poetry and imagination, and condemned realism and photographic art.[84] In an article from the *Musical Observer (1915)*, he wrote the following rhapsody:

> "The moon cast its rays upon the cathedral,
> Which stood in its majestic omnipotence, silently waiting.
> Sharp, black figures crawled over the walls,
> And long writhing figures, like green snakes,
>
> Tore at the hard, square stones, their white teeth bristling.
> Bells sounded first loud and harsh, then soft and mournful.
> The fate of a universe seemed concentrated on its peal.
>
> Suddenly all was dark, and a sharp, piercing, wild shriek came through the black night.
> Large, great blocks of stone crashed, falling, falling into an abyss, into figures.
> A loud, piercing wail – then all was silence."[85]

[81] Ibid.
[82] Ibid.
[83] The original source is an unpublished flyer owned by Severo Ornstein with the title "Course in Language and Literature of Music by Leo Ornstein,"
[84] Leo Ornstein, "How My Music Should Be Played And Sung: A Series of Papers Devoted to the Character and Idiom of My Latest Works, Describing Essential Requirements for Their Adequate Understanding and Providing Suggestions for Mastery of Their Technical Difficulties," *Musical Observer* 12 (n.d.): 714.
[85] Ibid, 715.

This beautiful prose poem was meant to be used as a guide for the performer, not a literal performance guide that would leave no room for "each performer to exercise his own imagination."[86] In fact, Ornstein did not particularly enjoy talking about music. He was considerably more interested in philosophy, history, politics, and current events.[87] He adored theater, especially John Millington Synge and the theater of the absurd. Ornstein was enamored of the unpredictability of Luigi Pirandello's plays, especially the absurdity of "*Six Characters in Search of an Author*."[88] He was also fascinated by Beckett's "*Endgame*" and the way the play blurred the distinction between reality and unreality.[89] Transcendentalist poetry was another literary source of inspiration for his programmatic compositions. Ornstein was fascinated with Waldo Frank's literary and artistic circles.[90] *The Poems of 1917* is an experimental work for piano dedicated to the homonymous poem by Waldo Frank. It is a cycle of ten pieces for solo piano – each portraying an aspect of the suffering resulting from the devastation of World War I – and reflects the "anguish and resentment of the primal savagery which drives man to shed the blood of his fellows."[91]

One of the reasons Leo Ornstein rose to fame was that he was a valuable asset of the American experimental music scene. He had a multifaceted personality and a "talent for attracting attention: a breed in very short supply in the second and third decades of the twentieth century."[92]

1.5: Hebraic Elements

Ornstein's works in the expressive and experimental style evoke folk elements that can be described as "Hebraic." The frequent use of improvisatory

[86] Ibid.
[87] See Chapter 5.6- "Literature, theater, atheism and faux pas" (Interview with Severo Ornstein)
[88] Ibid.
[89] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 10.
[90] Martens, *Leo Ornstein: The Man - His Ideas - His Work*, 79.
[91] Ibid.
[92] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 49.

melodies consisting of expansive motivic cells, such as (0145) and (014), in combination with irregular subdivisions and wailing melodies give the impression of a "Hebraic" sound to audiences. Paul Rosenfeld characterized his music as "Slavonic," "Eastern European, possibly leaning toward the Hebraic."[93] Henry Cowell praised Ornstein's *Piano Concerto – S553* for being "what Stravinsky's [Piano Concerto] should have been but was not," and he heard "a Jewish wail that puts Ernest Bloch to shame."[94] For Deems Taylor, the *Piano Concerto* was "strongly racial in character," and emanated an "undulatory Orientalism that characterizes so much Hebrew folk music."[95] To H.T. Craven, the same concerto sounded "Slavic, with Tartar elements and hints of Stravinsky and Borodin."[96] Indeed, Ornstein wrote programmatic works inspired by Tartar culture, such as *Tartar Lament – S707* and *Tartar Dance*, a work that Ornstein performed and recorded, but never wrote down. [97]

All the accounts of the aforementioned music critics and composers are rather vague when they try to describe Ornstein's folk elements. "Hebraic," "Slavonic," "Tartar," and outdated terms, such as "oriental," "exotic," and, "racial" are just ways to vaguely describe non-Western genres, particularly from the Middle East and Eastern Europe. As opposed to Ernest Bloch, Ornstein is not trying to directly project Jewish archetypes in his music. [98] His use of augmented-2nd and augmented-4th intervals, as well as (014) melodic cells, is much more nuanced. The modes and melodies in his music are constantly transforming and do not seem to carry a specific tradition or cultural memory behind them.

Ornstein pointed out that Hebraic modes "come fairly natural"[99] to him. He talks about it as an unconscious influence that probably derives from his years in Russia. It may have stemmed from his childhood memories of listening to his

[93] Ibid, 151.
[94] Henry Cowell, "America Takes a Front Rank in Year's Modernist Output," *Musical America* 61, no. 23 (1995).
[95] Deems Taylor, "Music," *New York Evening World*, February 18, 1925.
[96] H T Craven, "Musical America," *Musical America* 90, no. 7 (1925): 97.
[97] See Chapter 5.2 – "Leo the Pianist" (Interview with Severo Ornstein)
[98] Ornstein expressed his admiration for Ernst Bloch's music. In my interview with Severo Ornstein, he mentioned that his father "loved Bloch's music. Out of many contemporary composers, he expressed admiration for him." (See Chapter 5.7- "Jewish Identity")
[99] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 32.

father, who was a cantor at a great synagogue.[100] In a dissertation by Maria Suzanne Vassilev, Severo mentions that Leo Ornstein's "father was a cantor, and the sounds he absorbed from his youth couldn't help but affect him. It certainly shows in much of his music, although he tended to deny all influences and thought that the ideas simply 'came to him'."[101]

Although Ornstein was an atheist and antireligious, he never abandoned his Jewish heritage. Embedded strains of a perceived Jewish, Eastern European *melos* appear to have never left his memory entirely. These can be detected in some of the melodic echoes in his simpler, more conservative pieces as well especially those for cello.[102]

It is important to note at this point, that, while I will be referring to (014) 3-3 trichords as "Hebraic" and (0145) 4–7 tetrachords as "Hitzaz" for referential purposes, I do not want to attribute cultural ownership to them. Many other cultures also include these melodic cells in their tradition: Eastern Europeans, Greeks, Armenians, and Arabs, to name a few. As an example, the Hebraic scale Mi Sheberach (Ukrainian Dominant) is identical to the Greek folk mode Poimenikos[103] and has the following whole-step sequence: {1, ½, 1½, ½, 1, ½}. The 2nd–5th degrees of the scale form a (0145) Hitzaz tetrachord.

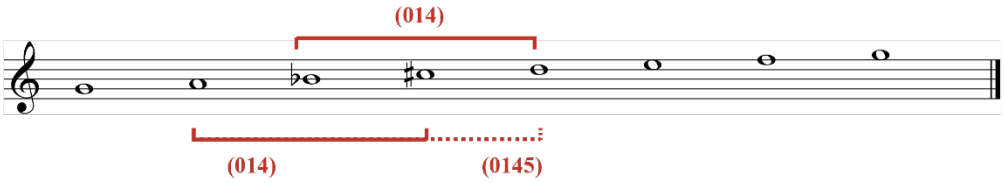

Figure 2.6: Mi Sheberach mode

[100] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 8.
[101] Vassilev, "Leo Ornstein's Piano Sonatas No. 4 and No. 8," 8.
[102] "Leo Ornstein," Milken Archive of Jewish Music: The American Experience, accessed May 11, 2021, https://www.milkenarchive.org/artists/view/leo-ornstein.
[103] Other Greek names for this mode include "Piraeotikos", "Aulos" and "Nikriz" from arabic (زيركن). (Sarakatsanos, Marios. "Christos Zotos: From Theory to Practice. Modes, Taximia and Comping Technique." T.E.I. of Epirus, 2011.)

Ornstein also uses the Byzantine or Hitzaz Kar mode, which is used in Middle Eastern, Eastern European, and Greek cultures. It has the following step-sequence: {½, 1½, ½, 1, ½, 1½}, built from two consecutive (0145) Hitzaz tetrachords:

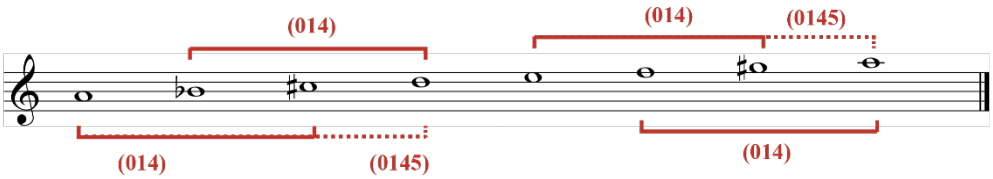

Figure 2.7: Byzantine or Hitzaz Kar mode

These modes are a part of Hebraic cantorial tradition, such as the one Ornstein encountered in his childhood, so it is no coincidence that melodic cells from Mi Sheberach and Hitzaz Kar constantly appear even in his expressive, as well as his experimental, atonal works. This folk element is not present as a separate "style," unlike in Alfred Schnittke's and John Zorn's polystylism. The way Ornstein blends diatonicism, interval-based atonality, and Hebraic elements is very organic and aurally cohesive.

1.6: Ornstein's Ideas about Interpretation

In 1915, Ornstein published a series of papers in the *Musical Observer* where he wrote about how his music should be sung and performed[104]. As a performer and researcher, myself, I believe it is very important to locate literature that provides contextual insights to a composer's thoughts about his own music. In these essays, it becomes clear that Ornstein cared tremendously about pianism. In a discussion about his new work *The Cathedral S073*, he emphasizes the importance of playing the piano with one's whole body: utilizing the swing of the arm, wrist flexibility and body weight. He describes how a pianist should be able

[104] Ornstein, "How My Music Should Be Played And Sung: A Series of Papers Devoted to the Character and Idiom of My Latest Works, Describing Essential Requirements for Their Adequate Understanding and Providing Suggestions for Mastery of Their Technical Difficulties."

to imitate the sound of bells and to also project a huge variety of emotions, such as fierceness, fatality, grief, foreboding sensation and hollowness. Most of his guidelines are metaphorical and philosophical. He stresses the importance of feeling music as a second nature, without engaging in analysis and preconceived notions of tonal harmony. The essence of his music is constructed with an "endowment of a universal sympathy which exists between one musical sound and another."[105] He then presents a rhapsodic poem that aims to immerse performers in a dark, macabre world.

Recordings of Ornstein's playing have been preserved by Severo Ornstein and can be accessed on his website. *Composing Session 1* features Ornstein's performance of his work *To a Grecian Urn S154*. Timestamps 2:29'–3:25' correspond to p.4/ m.6 from the score.[106] One immediately notices a beautiful ringing tone, the use of rubato, a harp-like style brisé technique of breaking chords before the beat, and a very controlled left-hand accompaniment tone. His pianistic manner when playing expressive works brings to mind the Golden Age of Piano and the French school of technique. As the music sinks deeper, he brings out a middle voice in the right hand and expands the tempo. Right before a pivotal harmonic change in p.5/ m.9, he makes a gradual *rallentando* in order to bring out a charming progression that resolves to Bb major, through Phrygian modal mixture. His tone is very effective in evoking feelings of anticipation and doubt. While the lush Bb major chord in the bass is ringing, there is a final reminiscence of the opening motif in the Mixolydian mode. He treats this final melodic fragment like a distant voice or a whisper, with a light *legato* touch and a lot of pedal. During such a short musical excerpt, Ornstein's tone transitions from introverted and self-reflective to ethereal.

In no circumstances during these recorded tapes does one feel Ornstein's tone to be harsh. Even when he is playing dissonant virtuosic passages with octaves and clusters, he has a deep and controlled touch.

[105] Ibid, 713.
[106] Severo Ornstein, "Audio," poonhill, accessed May 14, 2021, https://poonhill.com/audio.html.

1.7: Notation

Most of Ornstein's scores lack dynamic, expression and articulation markings. This poses the question whether his omissions were intentional or, as Severo points out in my interview, an outcome of "being lazy".[107] I believe that his lack of markings stems from both artistic choice and a lack of interest in promoting his own music. After interviewing Severo Ornstein and Sarah Cahill, who had both conversed with Ornstein about notation, I was surprised to receive conflicting explanations. Severo insisted that his father only wanted to get notes down on paper[108] and, although he struggled with finalizing and perfecting a work, he was not interested in whether it would be subsequently performed, published or recorded. In fact, Ornstein hated listening to recordings of his own works.[109] Sarah Cahill, on the other hand, through her conversations with Ornstein, interpreted his lack of notation as an aesthetic of artistic choice.[110]

In his interview with Vivian Perlis, Ornstein refers to expressive markings as only being points of stability and reference. He expressed his intention to leave many choices up to the performer. A person might play a piece of his music in some fashion that never occurred to him, and he was perfectly "accepting."[111] He also believed that experienced performers always have a correct sense of relative speed and context, regardless of metronome markings.[112]

Ornstein was deeply interested in philosophy and aesthetics. In music with minimal score directions, interpretation can significantly change musical form. He did not perceive a perfect performance of a work as a singular Platonic idea. The lack of dynamic and tempo markings allow a multitude of different artistic choices. When playing a work by Ornstein, the performer is both actor and director: one has to make important choices about form, by emphasizing certain events more than others, according to a vision. Piano recordings of Ornstein's

[107] See Chapter 5.3- "Leo the Composer" (Interview with Severo Ornstein)
[108] Ornstein, "Scores: About the Notation."
[109] See Chapter 5.2 – "Leo the Pianist" (Interview with Severo Ornstein)
[110] See Appendix A (Interview with Sarah Cahill)
[111] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 14.
[112] Ibid.

works are very different from one another. After my interview with Sarah Cahill, I realized how our recordings of *A Morning in the Woods S106a* differ in the way we interpret a certain section on p.7–8. This expressive and expansive section in F minor can be perceived either as a culmination or as a climax.[113] This subjectivity of interpretation was the norm in Baroque music tradition. Much like Ornstein, Bach, and Handel used minimal directions in their music and trusted the knowledge and abilities of performers to play their music, based on common practice.

Severo's explanation was that his father was being lazy, and his excuse was that pianists who read this kind of music will understand – and, if they don't, "they shouldn't be going near it."[114] In defense of Severo's views, Leo Ornstein's "laziness" is also reflected in improper pitch choices, where flats and sharps are used out of context, with no regard to harmonic and modal cohesion, let alone readability. His music is spelled in a highly unorthodox fashion,[115] and, while analyzing it, one has to always consider enharmonic spellings.

1.8: Severo's Preservation Efforts

Ornstein had a remarkable memory and was capable of remembering his works for years without having to write them down. He performed *Three Moods* for decades without ever having written a score[116] and, had he not been forced to transcribe it for a premiere by Paul Rosenfeld, this tremendous work would have been lost forever. His first three sonatas are completely lost, as he performed them solely from memory and never wrote them as a score. As a young performer, he always performed from memory and relied on his amazing inner ear. He was only interested in composing new works and rarely sat down to notate older ones, unless he had to because someone wanted to perform them. Later in his life, he became better at writing things down because his ability to remember declined significantly.

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[113] See Appendix A (Interview with Sarah Cahill)
[114] See Chapter 5.2 – "Leo the Pianist" (Interview with Severo Ornstein)
[115] Ornstein, "Scores: About the Notation."
[116] Perlis, "The Futurist Music of Leo Ornstein," 743.

Leo Ornstein's habit of not keeping scores of his own music can be demonstrated in the *Tartar Dance* incident. This work has never been transcribed, and someone who had heard it being performed by Ornstein wanted a score of it. In attempting to notate it, he remembered the beginning, he struggled to remember the rest of the piece. "Ah. I am not going to bother with this, I can write better stuff today. I have better things to do with my time."[117] Thankfully, Ornstein had taught this work to his student, pianist-composer Andrew Imbrie, who still remembered it years later and eventually recorded it on tape. Severo Ornstein has uploaded Andrew Imbrie's performance of *Tartar Dance* on YouTube, and, hopefully one day, someone will make a transcription of it.

When Leo Ornstein was roughly 70 years old, his memory started to decline, and he had difficulty in maintaining his musical train of thought. In my interview, Severo mentioned that his father was never satisfied with bridging sections in his music, because he would forget what he had originally thought was a better version. If Ornstein's wife Pauline was around and he had a great idea on the piano, she would immediately encourage him to write it down before he forgot it. He would play an entirely new piece from beginning to the end and would not write it down. "Music just disappeared into the air! Just, ***very*** frightening."[118] This is the reason why Severo worked on the *Mockingbird* program: to "essentially create a memory assist mechanism for [his] father."[119] Severo's ingenious invention of the first musical notation software ever created, *Mockingbird*, was inspired by his father's frustration at not being able to capture musical ideas fast enough.[120]

Severo was Leo Ornstein's biggest promoter, publisher and preserver. He attempted to motivate the musical world concerning his father's work. In an account described by Michael Broyles, Severo wrote to Elliott Carter asking for advice regarding "the status of [his] father's music which seems in considerable

[117] See Chapter 5.2 – "Leo the Pianist" (Interview with Severo Ornstein)
[118] Ibid.
[119] Ibid.
[120] Ibid.

jeopardy of sinking into complete oblivion." [121] He hoped Carter would help, but unfortunately, Carter never replied.

In 1973, Severo wrote to Theodore Stamos and arranged a recording with CRI (Composers Recording International) to record the Quintet. He was also in touch with Gideon Cornfield of Orion Records. Severo insisted upon the copyright being in his father's name, which annoyed Cornfield and made him refuse to commit to the contract.[122] In 1983, Severo sent myriads of letters to artists and institutions, like Leonard Bernstein and Yale University, in order to promote and publish Leo Ornstein's works.[123] His determination was unabated.

In an attempt to digitize his father's music, Severo Ornstein worked with John Maxwell, an MIT graduate, on the historical notation software *Mockingbird*. The software was created at Xerox PARC for the Xerox Dorado computer system.[124] When *Mockingbird* was built in 1981, midi had not yet been invented, so Severo Ornstein and John Maxwell designed their own equivalent communication protocol. Severo modified a Yamaha CP30 keyboard,[125] designed special hardware and wrote special microcode to connect the Yamaha synthesizer to the research computer they were using. The prototype computer system was specially made by the Xerox Palo Alto Research Center, and included a 60ns instruction cycle processor, eight megabytes of RAM, an 80Mb hard disk, and an A4 resolution bit-mapped display.[126] This was a historic moment, as it was not only the first digital notation system with unique editing and playback capabilities,[127] but also one of the first computers with bitmap arrays that could show a graphic layout of scores.[128]

After visiting the Leo Ornstein Paper archive at Yale University, and having experienced firsthand the kind of work Severo had to go through, I can

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[121] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 244.
[122] Ibid, 265-266.
[123] Ibid, 272.
[124] Severo Ornstein and John Maxwell, *Mockingbird -- A Musician's Amanuensis, Lecture by Severo Ornstein and John Maxwell,* 1980, https://www.youtube.com/watch?v=0dxaEDKoTys.
[125] Ellis, David. "The Gentle Art of Transcription (Part 2)." *Electronics & Music Maker*, June 1984, 82–84. http://www.muzines.co.uk/articles/the-gentle-art-of-transcription/7906.
[126] Ibid
[127] Ibid
[128] This information was conveyed to me by Severo Ornstein in an email from October 12, 2018.

only admire and have the greatest respect for his efforts and dedication. In 1987, Severo started digitizing his father's music, and it took him 10 years to sort out tens of thousands of scores, some of which were in random order, then patiently transfer every note into a software notation program[129] that is infinitely less user-friendly than modern software like *Sibelius*, *Finale* and *Dorico*. Furthermore, the score density of an average major work by Leo Ornstein is comparable to Rachmaninoff's Piano Concerto No. 3. One can only imagine that it took Severo thousands of hours to transcribe it.

Unfortunately, it seems that Leo Ornstein was indifferent to Severo's colossal preservation efforts. When Severo finally appeared, years later, with volumes of music, his father looked at them and said: "Very nice. I am very gratified. Now let's talk about something else."[130]

[129] "Once I started using the system a lot, I became an expert. I spent 10 years." [See Chapter 5.12- "Revival" (Interview with Severo Ornstein)]
[130] See Chapter 5.12- "Revival" (Interview with Severo Ornstein)

CHAPTER 2
DIATONIC STYLE

2.1: Style Overview

Ornstein's diatonic or "early" style[131] is described as romantic, lyrical and simplistic. It resembles the music of Schubert, Chopin and Grieg, as expected from a blooming teenage concert pianist at the turn of the 20th century. Most of his early compositions written in 1911- 1913, such as *7 Moments Musicaux S000, Six Lyric Fancies S009 and Op.4, Valse G-Dur S074,* were frequently in Waltz, Mazurka and Nocturne form. After his breakthrough in the experimental genre in 1913, he gradually abandoned this conventional style, only to utilize it on rare occasions, sometimes under the pseudonym "Vannin." In the same way that Florestan and Eusebius represented Schumann's contrasting musical personas, Ornstein's Vannin was a symbol of his diversity. In 1916, he told music critic Carl Van Vechten that this signature "is automatic: when Vannin writes, he signs; when Ornstein writes, he signs."[132]

Ornstein's ability to adopt multiple personas as a composer was an outcome of his natural gift as a pianist. He was able to both captivate audiences with his soft *cantabile* touch and shock them with barbaric hammering of the piano. The sheer breadth of harmony, melody and affect in his output displays the mentality of an "artist toy-maker."[133] Although his early musical compositions are intricate in structure, their essence has "the native charm of a child imitating what strikes his attention."[134]

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[131] Bonney, "The Compositional Transformation and Musical Rebirth of Leo Ornstein" 1.
[132] Carl Van Vechten, *Music and Bad Manners* (New York: Alfred A. Knopf, 1916), 223.
[133] Gail Levin, "Alfred Stieglitz, Les Compositeurs Contemporains et Le Modernisme," in *Carrefour Stieglitz(The Sign of Stieglitz)*, ed. Jay Bochner and Jean-Pierre Montier (Rennes, France: Presses Universitaire de Rennes, 2012), 167–78, https://www.gc.cuny.edu/CUNY_GC/media/CUNY-Graduate-Center/PDF/Art History/Gail Levin/Stieglitz_Levin.pdf. 169
[134] Ibid.

2.2: Discovery of *Sonata pour le Piano (1917)* Manuscript

When I interviewed Severo Ornstein in San Francisco, I asked for permission to research The Leo Ornstein Papers[135] archive at Yale. These archives contain diaries, sketches, manuscript scores, and published editions of Leo Ornstein's musical compositions, including songs, piano pieces, chamber music, and orchestral works. The Leo Ornstein Papers also hold photographs, programs, and reviews, biographical clippings, and prose writings by Pauline Ornstein, Ornstein's wife.[136] In 2019, I visited the Irving S. Gilmore Music Library of Yale University and had the privilege of going through multiple boxes containing thousands of scores. My primary interest was to find drafts and outlines of works in progress that had remained unpublished and to potentially discover new works.

To my surprise, I came across a manuscript of an unpublished work for piano: *Sonata pour le Piano*. I informed Severo about this discovery, and he wondered how he could have missed this work when he made a catalogue of his father's oeuvre. He explained that he probably decided to skip it because it was not finished, and he already had too many scores to transcribe.[137] Severo also mentioned that he wanted to upload my transcription in the official Leo Ornstein website, once it is completed.

As regards the rest of the contents of these boxes, I also found notes for private piano students. There are fingerings for scales, guidelines for how to practice (develop technique and musicality), as well as short songs and piano transcriptions for beginners. The handwriting is very different from his other scores, and I believe it belongs to his wife Pauline. Another reason for my doubts is that Leo Ornstein only accepted advanced students in his studio and, very rarely, gifted young children who showed exceptional talent.[138] I also found a

[135] Crumb and Clark, "Archives at Yale: The Leo Ornstein Papers."
[136] Ibid
[137] Email from Severo Ornstein to me on March 29 2021
[138] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 215.

short prelude to an act of an unfinished opera. Some parts of this prelude were erased with a black pen.

Sonata pour le Piano is of particular interest to my research because it is a diatonic piece that was written during Ornstein's piano touring and prolific compositional period in the 1910s. It provides further credence to my argument that he was a composer who used multiple personas for authorship. The diatonic, the experimental and the expressive all coexisted in his works at the same time.

The work is a single movement that includes an exposition and a development. Unfortunately, Ornstein wrote only a few bars of the recapitulation, which are identical to the exposition. After having carefully examined the score, I transcribed it digitally on *Sibelius* notation software. Before presenting my transcription, I would like to provide some interesting details about the manuscript. The handwriting is very clear and organized, unlike his other manuscripts, where it is rather messy. It is possible that this copy was transcribed by Pauline. In an interview with Vivian Perlis, Ornstein admitted that Pauline took the role of a transcriber even prior to their marriage and that only a few finalized manuscripts of early works, such as *Three Moods S005* and *Suicide in an Airplane S006*, were actually written by him.[139]

The first thing one notices from the title page below (Figure 3.1) is that crucial information was erased and corrected. Thankfully, the erased letters are still legible, and it appears that Ornstein originally intended this work to be a "Sonatina," but then corrected this title to "Sonata" (first line of text in Figure 3.1). Considering the length of the exposition and development, sonatina indeed is a more befitting title for this work. Furthermore, behind the date "1917" there is another date written in pencil: "1916." Similarly, behind the label "opus 50" there is another number: "47" (Figure 3.1). The same number can be seen in the first movement page (Figure 3.2). A simple explanation for this discrepancy of opus numbers is that this score was a draft that was edited multiple times. When this draft was initially created in 1916, it was labeled as "opus 47." In 1917, Ornstein revisited this work and made minor corrections: varying degrees of

[139] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 36.

black and pencil thickness in the handwriting could possibly suggest that Pauline, who probably made the copy, retroactively added grace notes, harmonies, accidentals and some clef changes. After implementing these new corrections, he changed the opus number to “Op. 50,” because at that time he had already written three new works.

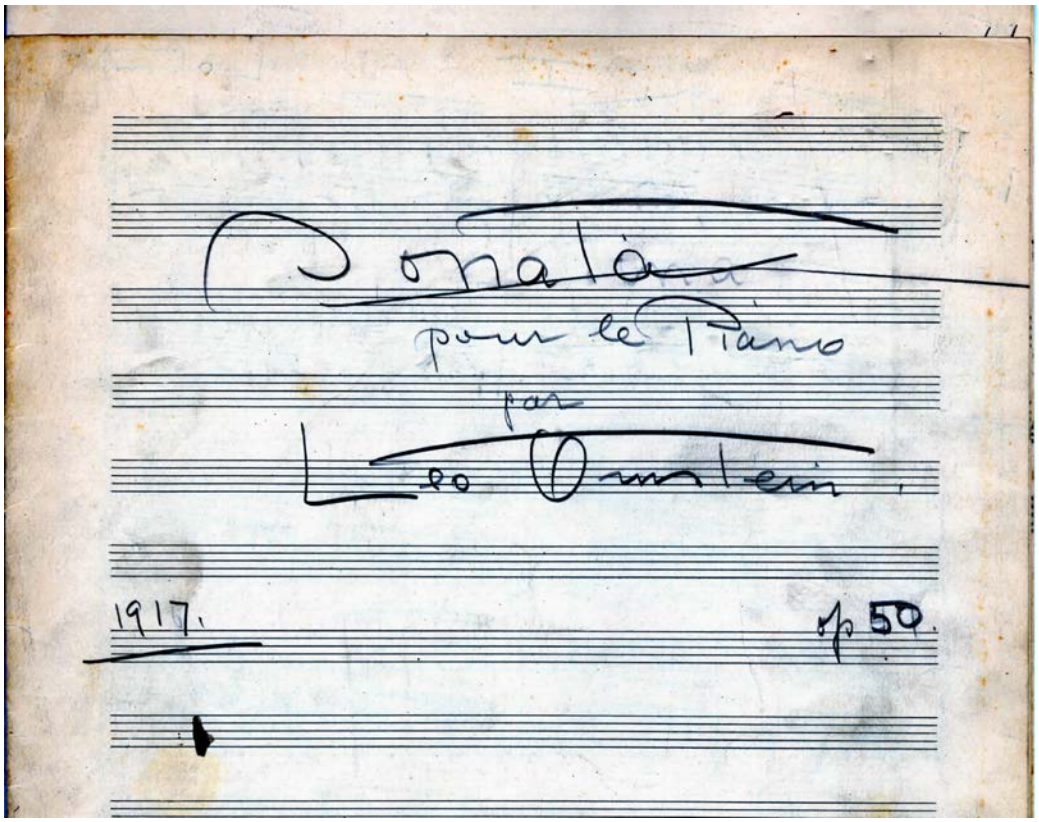

Figure 3.1: Manuscript, Title Page

As in most of his works, there is a complete lack of dynamics, slurs, articulations and tempo markings. Performance details and a plethora of musical decisions are left to the discretion of the experienced pianist. Moreover, accidentals are always restated within the same measure and at the same pitch. This particular way of notation is used in the majority of his works.

There are several minor errors that should be noted. Some of the note durations of the bottom voice in the right hand in the first four measures fluctuate between 16th-notes and 32nd-notes. These are obviously 32nd-notes, as they line up perfectly with the upper voice in the left hand, which is also in 32nd-notes.

Figure 3.2: Manuscript, First Page m.-4

In m. 9, the bass is right between G3 and A3. I believe the correct note here is A3 for two reasons: in this entire first page, the beginning of every measure has a perfect-5th dyad in the left hand; furthermore, when the passage of m. 9 repeats in m. 11 the bass note is A3.

Figure 3.3: Manuscript, First Page m. 9–12

Finally, another error can be seen in m. 61 (Figure 3.4). In this section, the left-hand leaps between bass and treble clef registers. Ornstein seems to have forgotten to add a bass clef sign in the left hand. I believe the right chord should be the following: A2/E3/B3. My reasoning is that when the same pattern is repeated in m. 63 the same chord is written in the bass clef. Another obvious reason is that, without the bass clef in m. 61, the quintal harmony played by the left hand would be very awkward to execute and would overlap with the right hand C5.

Figure 3.4: Manuscript, page 6, m. 56–64

In my transcription, these are the only corrections I included. For some sections where material is repeated, I had to follow Ornstein's written instructions. Figure 3.5 shows one example of the type of guidelines I had to follow.

Figure 3.5: Manuscript, page 7, m. 71–72

In the example above from m. 71–72, he writes in German, "Beide Takte eine Octave tiefer wiederholen," and includes the English translation, "Both measures to be repeated an octave lower." In other instances, he uses the conventional measure repeat symbol ( ) or circles the passage that needs to be repeated.

In terms of engraving, I used three staves for sections that looked awkward or difficult to read and conformed accidentals to modern conventions of notation, where identical note accidentals are not restated within the same bar.

2.3: Transcription of *Sonata pour le Piano (1917)*

Figures 3.6–3.14 include the first edition of *Sonata pour le Piano* by Leo Ornstein, which I transcribed and engraved with Sibelius 2019.

Figure 3.6: Sonata pour le Piano – Exposition, Primary Theme, page 1

Figure 3.7: Sonata pour le Piano, page 2

Figure 3.8: Sonata pour le Piano, page 3

Figure 3.9: Sonata pour le Piano – Exposition, Secondary Theme, page 4

Figure 3.10: Sonata pour le Piano – Development, page 5

Figure 3.11: Sonata pour le Piano, page 6

Figure 3.12: Sonata pour le Piano, page 7

Figure 3.13: Sonata pour le Piano – Recapitulation (m. 77), page 8

Figure 3.14: Sonata pour le Piano, page 9

2.4: *Sonata pour le Piano (1917)* – Analysis

The simplicity of this work is a great example of Ornstein's diatonic style. As shown in the arc diagram of Figure 3.15, the sonata form unfolds in the following sections:

> Exposition: Primary Theme Area (m. 1–20), Secondary Theme Area (m. 21–41), Development (m. 41–77), Recapitulation: Primary Theme Area (77–78, incomplete).

The Primary and Secondary Themes of the exposition are completely isomorphic in terms of phrase structure and subsections. The Primary Theme Area is 20 measures long and includes two subsections: A (m. 1–12) and A' (m. 13–20). Each of these subsections has a very regular internal structure where phrases are in groups of two measures. The segmentation of these microscale phrases is clear through motivic and harmonic repetition. The Secondary Theme Area is also 20 measures long and contains two subsections: B (m. 21–32) and C (m. 33–40). The internal motivic structure is also grouped in 2-measure phrases.

The development has a length of 36 bars and is divided in three main sections: D1 (m. 41–52), D2 (m. 53–68) and D3 (m. 69–76). All subsections maintain the same 2-measure structure as before.

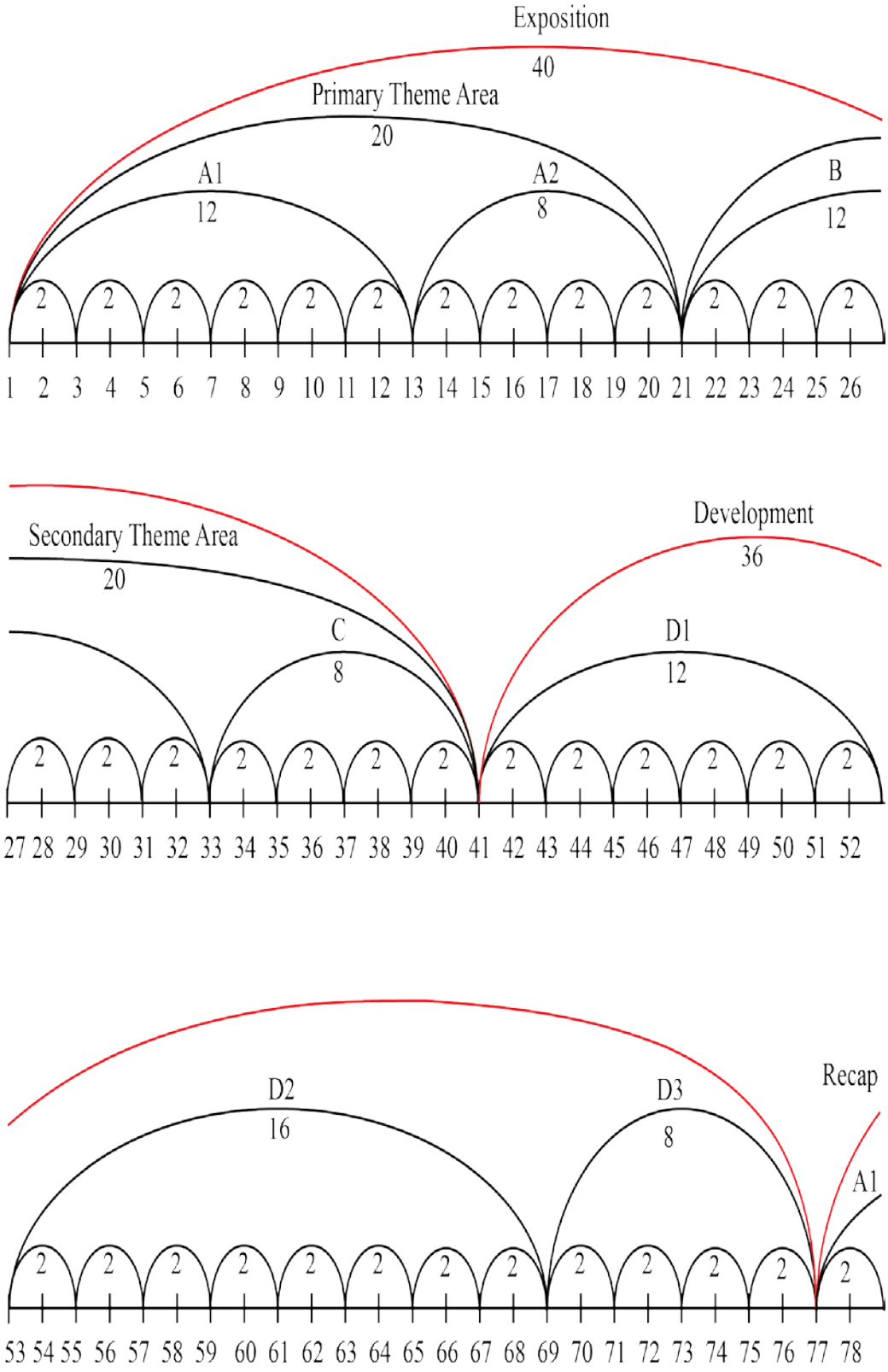

Figure 3.15: Sonata pour le Piano – Arc diagram

The Sonata begins with a theme in A Aeolian. The texture resembles Classical string quartet orchestration with 4 distinct voices that are grouped together: the outer voices mimic a violin 1/ cello group and the inner voices mimic a violin 2/ viola group. The tenor voice in the left hand has 32nd notes that alternate between single notes and major– or minor–2nd dyads. These dyads are always adjacent white keys. Harmonic rhythm is established in a regular quarter-note feel. The left hand outlines diatonic tetrachords with a root, fifth, added sixth, and a seventh. The alto voice in the right hand always outlines the third and fourth degrees in relation to the bass. Bass, tenor, and alto move diatonically in parallel with identical voicings. "Diatonic planing" or "parallelism" is a well-known technique used by Debussy and Ravel where harmonies are transposed in fixed positions along a single diatonic pitch space.

Ornstein oversaturates each harmony by using all pitches from the A Aeolian collection in the very first measure. As in his experimental works, he treats harmonies like sound masses, much like Varèse and Ligeti. In this case, the result is much tamer, because he avoids any kind of dissonance or deviation from diatonic pitch collections.

Even in this kind of work, Ornstein never thought in terms of functional or post-tonal harmony. This is supported by his own words in the Musical Observer:

> "Music, one must remember, should primarily be felt and not analyzed. The ultimate end of understanding the essentials of a new work must after all be done through a conscious effort towards realizing musically exactly what the composer means. The performer, just as the listener, will find that he will be obliged to discard the established formula of tonic, sub-dominant, dominant, and return again to tonic. The student will find it a physical impossibility to apply this preconceived formula to any of my music."[140]

[140] Ornstein, "How My Music Should Be Played And Sung: A Series of Papers Devoted to the Character and Idiom of My Latest Works, Describing Essential Requirements for Their

Based on the above, functional harmonic analysis would not be necessary in this case, especially since tonal harmony includes inherent hierarchies and syntax. This kind of passage can be better understood through pitch collections. At the same time, the melodic contour of the soprano in m. 1–9 is definitely in A Aeolian and, while the rest of the voices move in parallel, it moves independently like a vocal soloist.

In terms of pianistic interpretation, this opening passage can be played beautifully if the top voice is *cantabile* and played with more finger weight. The voices moving in parallel (bass/ tenor/ alto) can be interpreted as an accompaniment and played *leggiero*. All white-key dyads in the left hand can be played with the thumb, placing it flat over both keys, which will make the entire passage much easier to play. The frequent occurrence of white-key dyads placed under the thumb position in the left hand is an indication that Ornstein conceived the Primary Theme in the piano, possibly through improvising with diatonic clusters.

The first 8 measures can be reduced to 16 diatonic pitch collections of varying density with white-note keys as roots (Figure 3.16). Each collection corresponds to quarter-note segmentations.

1) D Dorian heptachord: [D, E, F, G, A, B, C]
2) F Lydian heptachord: [F, G, A, B, C, D, E]
3) D Dorian heptachord: [D, E, F, G, A, B, C]
4) A Aeolian heptachord: [A, B, C, D, E, F, G]
5) D Dorian heptachord: [D, E, F, G, A, B, C]
6) G Mixolydian hexachord: [G, B, C, D, E, F] (excludes A)
7) F Lydian hexachord: [F, A, B, C, D, E] (excludes G)
8) E Phrygian hexachord: [E, G, A, B, C, D] (excludes F)
9) D Dorian hexachord: [D, F, G, A, B, C] (excludes E)
10) A Aeolian heptachord: [A, B, C, D, E, F, G]
11) C Ionian hexachord: [C, E, F, G, A, B] (excludes D)

Adequate Understanding and Providing Suggestions for Mastery of Their Technical Difficulties," 713.

12) F Lydian hexachord: [F, A, B, C, D, E] (excludes G)

13) A Aeolian heptachord: [A, B, C, D, E, F, G]

14) C Ionian hexachord: [C, E, F, G, A, B] (excludes D)

15) D Dorian heptachord: [D, E, F, G, A, B, C]

16) F Lydian hexachord: [F, A, B, C, D, E] (excludes G)

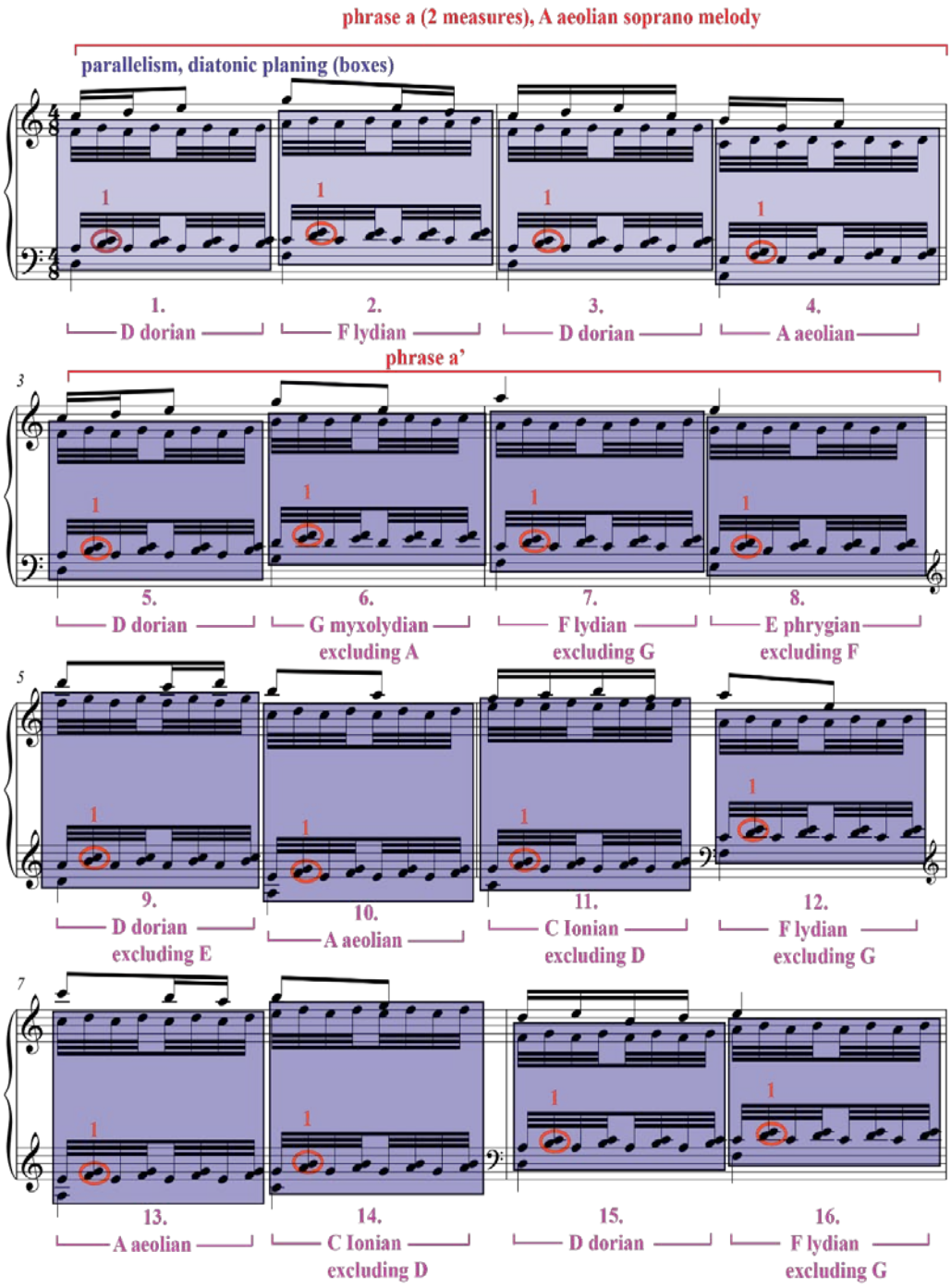

Figure 3.16: Sonata pour le Piano – Exposition, A1 section

The diagram and list information above shows that the Primary Theme Area has a dense harmonic content consisting of diatonic hexachords and heptachords. If a collection does not include a pitch, it is always the second degree of the diatonic collection, i.e., C Ionian hexachords will exclude D, D Dorian hexachords will exclude E, and so on. If every degree of a diatonic scale is represented by 7 numbers where 1 is the root, then each collection in m.1–8 is the following: (134567). Ornstein treats these pitch collections as blocks of sound that move in parallel.

As the exposition progresses, Ornstein develops the diatonic hexachord idea in Eb Lydian [Eb, G, A, Bb, C, D] (m.10) and F# Locrian [F#, A, B, C, D, E] (m.12). The pattern stops in beat 2 of m. 12, where Ornstein uses a mildly dissonant polytonal chord: left hand plays a $D^{(add2)}$ tetrachord [A2, D3, E3, F3] and right hand plays B^{sus2} trichord [B3, C#4, F#4]. This harmony is placed in the end of the *A1* section and has a quality of suspense and anticipation, because it is completely different from all preceding chords.

The *A2* section lasts 8 measures and its harmonic content derives from Lydian-Mixolydian collections. The Lydian-Mixolydian or "acoustic" scale is a secondary heptatonic scale and includes the following whole-step interval sequence: {1, 1, 1, ½, 1, ½}. The harmonic rhythm has expanded to a half note. This is maintained until m. 20, where two different collections are outlined in each quarter note, while the bass is holding a [C, G] dyad pedal. The collections for each bar are the following (Figure 3.17):

1) C Lydian-Mixolydian heptachord: [C, D, E, F#, G, A, Bb]
2) Eb Lydian-Mixolydian heptachord: [Eb, F, G, A, Bb, C, Db]
3) C Lydian-Mixolydian heptachord: [C, D, E, F#, G, A, Bb]
4) F# Lydian-Mixolydian heptachord: [F#, G#, Bb, C, C#, Eb, E]
5) A Mixolydian pentachord: [A, B, C#, E, G]
6) C Mixolydian tetrachord: [C, D, E, G, Bb] (not shown in graph)
7) A Mixolydian tetrachord: [A, B, C#, E, G] (not shown in graph)

8) C Lydian-Mixolydian tetrachord: [C, D, E, G, Bb] and E Mixolydian: [E, F#, G#, B, D] (not shown in graph)

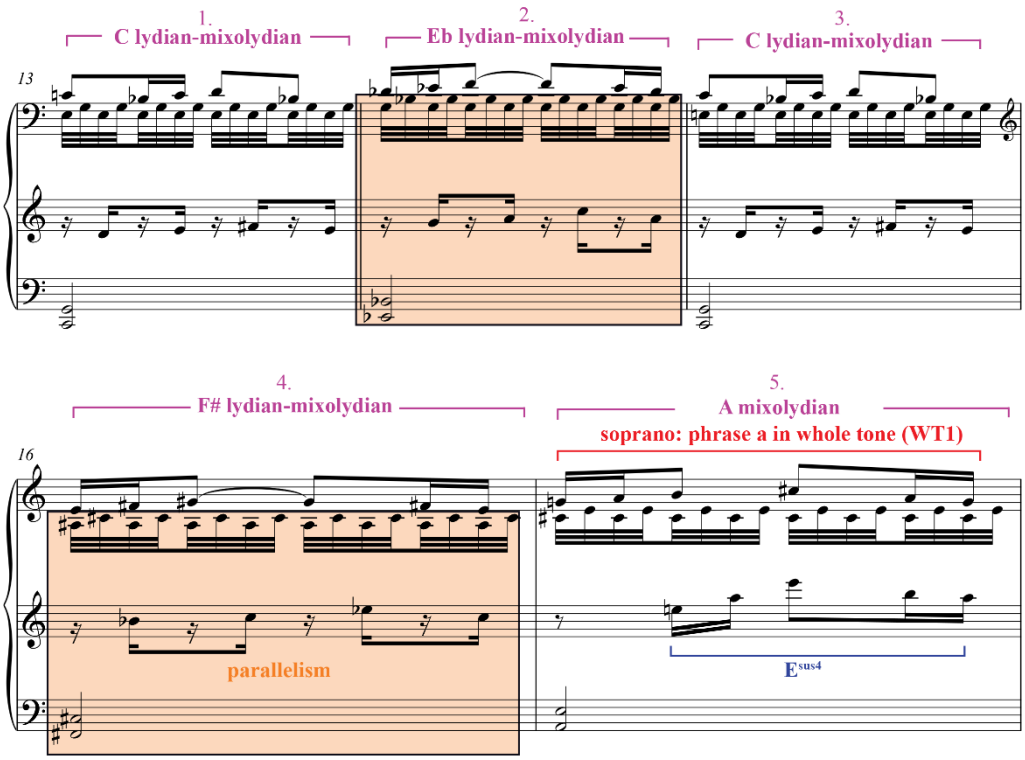

Figure 3.17: Sonata pour le Piano – Exposition, A2 section

A secondary melody is introduced in the middle staff (*A2* section – 3.17). It is always syncopated and always rises and falls. It outlines (024) 3–6 and (025) 3-7 trichords. As shown in the colored boxes above, the bass, alto and tenor voices move in parallel and are transposed a minor 3rd higher (m. 14 and 16). In m. 17–19, the middle staff voice outlines sus4 trichords that move in parallel with the bass: in m. 17, a [A2, E3] dyad with an E^{sus4} [E5, A5, B5] in the middle staff is then transposed in m. 18 to a minor 3rd higher to a G^{sus4} triad [G5, C6, D6] with a [C3, G3] dyad in the bass. The soprano melody in measures 17 and 19 derives from the opening *a* phrase. Ornstein uses the first 6 notes of phrase *a'*, but switches the pitch content from Aeolian (m.1) to a whole tone collection WT1 (m.17). This same phrase is repeated in a minor 3rd higher in a WT0 collection (m.18). During this section, the dual grouping of phrase structure is always maintained.

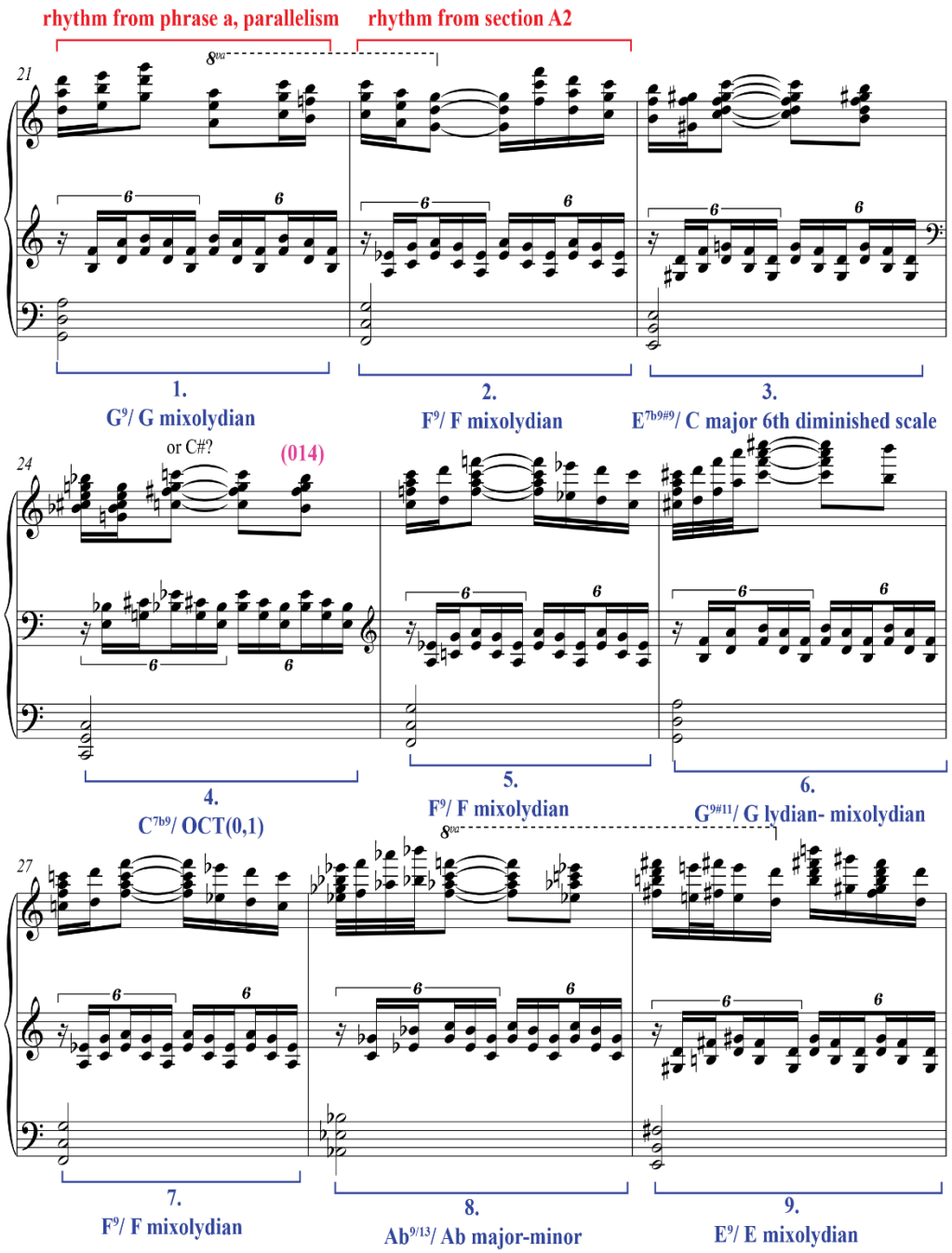

Figure 3.18: Sonata pour le Piano – Exposition, B section

The Secondary Theme is introduced in m. 21. The harmonic palette has shifted from Lydian-Mixolydian to Mixolydian, octatonic, and pentatonic modes. In m. 21, 22, and 25–32 (Figure 3.18), the pitches of the middle and lower staves form major^{9} chords. This chord is combined with the melody to produce

interesting pitch collections. The first 12 bars of the *B* section have the following pitch content (m. 21–32, Figure 3.18):

1) G Lydian-Mixolydian hexachord, excluding A
2) F Mixolydian hexachord, excluding Bb
3) C major 6th diminished scale, excluding A.
4) Octatonic OCT (0,1) heptachord, excluding A.
5) F Mixolydian hexachord, excluding Bb
6) G Lydian-Mixolydian hexachord, excluding E
7) F Mixolydian hexachord, excluding Bb
8) Ab major-minor hexachord, excluding Db
9) E Mixolydian pentachord, excluding A and C#
10) G Lydian-Mixolydian hexachord, excluding E
11) E Mixolydian pentachord, excluding A and C#
12) C Mixolydian hexachord, excluding F (linking chord modulating to OCT (0,2) in m. 33, through common tones in the bass: [C2, G2, D3]

In the list above, pitch collections 2, 4, 5, 7, 8, 9, 11, and 12 are all hexachord subsets of the Lydian-Mixolydian collections from section *A2*. The similarity of pitch content could be an indication that we are still in the Primary Thematic Area. However, the symmetrical proportions of the phrase structure reflect an isometric form: A1+A2 = B+C = 12+8 measures long (Figure 3.15). Ornstein also includes the Hebraic (014) trichord in the right hand of m. 24, within the octatonic OCT (0,1) collection. This trichord is a "signature" in Leo Ornstein's music.

Measure 23 also includes the (014) trichord [B4, G#4, C5] and is based on a collection that is used in jazz, the major 6th diminished or Bebop scale. A major Bebop scale with a C root has the following notes: [C, D, E, F, G, G#, A, B].[141]

[141] Michael Hewitt, *Musical Scales of the World* (The Note Tree, 2013), 22.

Figure 3.19: C major 6th diminished scale or C major Bebop scale

The use of octatonic collections in m. 24, 29, and later in the development, stand out as relatively dissonant compared to the rest of the work, which revolves around diatonic and pentatonic scales. In my opinion, they are brief moments of anguish and discomfort that foreshadow section *C* (m.33), which is in the octatonic mode. The same year that Ornstein composed *Sonata pour le Piano*, he also wrote a song for piano called *Mother O'Mine S706*, based on a poem by Rudyard Kipling. It is composed in his diatonic style while also showing an influence of Schumann. In Figure 3.20, despite a clearly established *doloroso* section in the key of F minor, the word "drowned" is text painted with brief dissonance in the harmony: [Ab2, Cb3, E3, G3, Db4]. This pentachord is a subset of the octatonic collection OCT (1,2) and also includes two Hebraic (014) trichords as subsets: [Ab2, E3, G3] and [Ab2, Cb2, G3] are (014) trichords in prime form (Figure 3.20 – m. 3). Both the pitch content and placement of this chord are very similar to *Sonata pour le Piano* m. 24 (Figure 3.18). Ornstein uses this harmonic device in many of his diatonic works, and it could be a distinct sonority representing pain in his music.

Figure 3.20: Leo Ornstein – Mother O'Mine S706, p.4/ m.4–6

Harmonic planing is still employed by the composer, but in a different way than before. Instead of moving both melody and accompaniment in parallel as groups, Ornstein just moves the top staff voice in parallel. In Section *B* (Figure 3.18), the soprano includes three-voice chords that outline the following degrees: root- fifth- root (8^{va} higher). The melodic contour of the soprano uses a similar rhythmic scheme as phrase *a* and m. 18 (*A2* section), however the texture in the alto, tenor and soprano is polyrhythmic. The middle staff, which is played by the left hand, is outlining 5^{th} and 4^{th} dyads in sextuplets, while the upper staff is in 8^{th} and 16^{th} notes. Meanwhile, the left hand is still playing half notes like in section *A2*, but with quintal-9^{th} trichords.

The technique of combining harmonic parallelism with three-voiced chords and bass triad drones is present in many works by Debussy that draw inspiration from Indonesian Gamelan scales and textural register distribution. An example of this technique can be seen below in the opening of "La Cathédrale Engloutie", from *Préludes – Book I*. A year earlier, before writing *Sonata pour le Piano*, Ornstein also wrote a short piano piece with a similar name called *The Cathedral S073*; however this piece is quite different than Debussy's Prelude No. 10. It is a macabre atonal work including slow dissonant clusters.

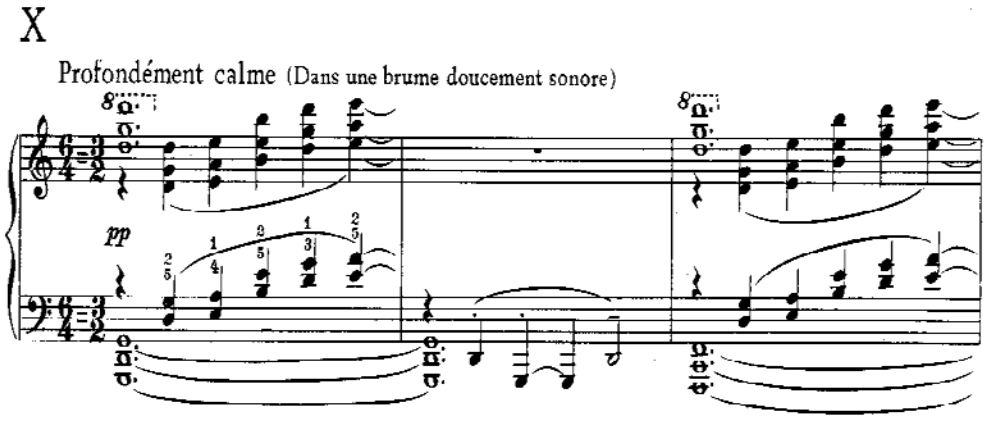

Figure 3.21: Debussy – "La Cathédrale Engloutie," m. 1–3

In terms of interpretation, the *B* section of *Sonata pour le Piano* (Figure 3.18) is much more expansive than the introspective *A2* section. The full chords in the bass and distribution of voices along a wide octave range (3rd–7th octave tessitura) require a full pianistic sound with weight and a swing of the arms.

Arm technique in piano playing was of vital importance to Ornstein. In an article published by the *Musical Observer* in 1915, about a year earlier than *Sonata pour le Piano,* Ornstein presented his work *The Cathedral – S073,* along with an essay named "How my music should be played and sung."[142] In this essay, he includes extensive guidelines on how pianists should use their whole arm when playing his pieces: "the opening measure should be played very fully with the swing of the whole arm through the use of the third finger."[143] The *B* section should be played with a similar technique of a full sound that is exerted from one's arms and whole body.

The *C* section of the Secondary Theme is in the octatonic mode OCT (0,2). The connecting thread from the previous section is the sextuplet ostinato in the left hand, which has now transformed into rhythmic cells of three repeated notes that are shifted by one triplet 16th-note in relation to the steady quarter-note beat (Figure 3.22). These repeated notes are grouped in two: the first group is a major-2nd dyad, whereas the second is a single note. The melody consists of a chromatic *doloroso* motif that is harmonized in double minor 3rds. In m. 37, the left hand expands on the major-2nd motif by playing double major 2nds. Ornstein uses double 2nds in his experimental works as well, and one can only imagine what horror such a device might have caused to many pianists living in 1916. Rapid double major and minor 2nds were used quite rarely in piano literature before Ornstein, with the exception of Debussy and Ravel.

[142] Ornstein, "How My Music Should Be Played And Sung: A Series of Papers Devoted to the Character and Idiom of My Latest Works, Describing Essential Requirements for Their Adequate Understanding and Providing Suggestions for Mastery of Their Technical Difficulties," 715.
[143] Ibid.

Figure 3.22: Leo Ornstein – Sonata pour le Piano, C section

In terms of performing double 2nds accurately, one has to play each group of notes with fingers that are a little tense and very close together. Alfred Cortot had some great exercises to prepare piano students for all kinds of double-note passages. In Figure 3.23, Cortot includes some peculiar fingerings for ascending and descending diatonic parallel-2nd dyads.[144] This kind of preparatory exercise can be helpful, although Ornstein's passage shown in Figure 3.22, m. 37, is straightforward and can be fingered as 1, 2– 3, 4. In other instances, the use of the thumb to play adjacent white keys is much more practical than Cortot's complicated fingerings.

Figure 3.23: Alfred Cortot – Rational Principles of Pianoforte Technique, double 2nds technique

[144] Alfred Cortot, *Principi Razionali Della Tecnica Pianistica*, Editions S (Milan: S. A. Edizioni Suvini Zerboni, 1928).

The development consists of 3 main sections: *D1, D2,* and *D3*. Material from the Primary and Secondary Themes is incorporated in both the melody and accompaniment. In Figure 3.24, section *D1* begins in m. 42 with virtuosic right-hand gestures that rapidly alternate between single notes and 4-voice chords, which can be combined to form a single pentachord. This pentachordal hand position ascends and descends two octaves in 32nd-notes. In measures 41- 52, the chords move in parallel from one position to the next, as in the diatonic planing technique used in the exposition. The right-hand chords are based on white-key diatonic pentachords with the following voicing: root- 3rd- 4th- 5th- 7th. An interesting feature of these rapid gestures is that the bottom note and top tetrachord of each arpeggio is repeated once. This quick note repetition is a noticeable characteristic present in each 8th-note subdivision and echoes the *C* section accompaniment (Figure 3.22, m. 33).

The quarter-note ostinato in the bass of Figure 3.24 is a pattern of two quintal trichords that move in perfect 4^{ths}: [G2, D3, A3] to [D2, A2, E3]. The ostinato lasts 8 measures (m. 41–48), and, after that, it expands to a longer pattern of four quarter notes. The new ostinato is 4 measures long and outlines quintal trichords with the following bass motion: F- C- D- A.

A beautiful expressive melody unfolds in the middle voice. This vocal line has a long arching melodic contour, as well as declamatory rhythmic elements that resemble Ornstein's expressive works. 18-note triplet figures leading to a repeated note evoke feelings of longing and echo phrase *c* of the Secondary Theme (m. 33, Figure 3.22). The melody reaches its registral peak in the 5th-octave tessitura (m. 45–48), but then descends to the 4th and 3rd tessitura. In terms of phrase structure, the melody has a regular hypermeter of 2 measures, as 3-note melodic cells initiate each phrase (m. 41, 43, 45, 47, 49, 51). The syncopation within these particular melodic cells is a characteristic that derives from the *B* section of the Secondary Theme (m. 23–25, 27).

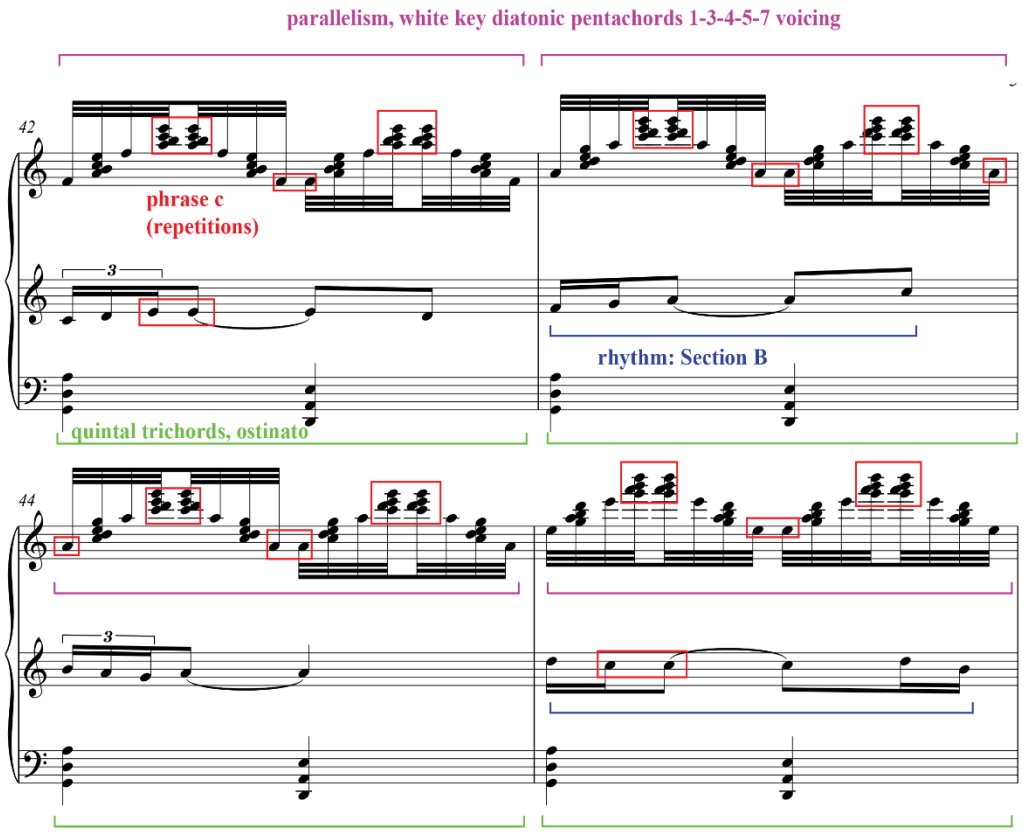

Figure 3.24: Leo Ornstein – Sonata pour le Piano– Development, Section D1

Some of the challenges for a pianist performing this section are found in the left hand. The distribution of the bass and melody in the middle voice require that they be broken up with very rapid wrist motion and a subtle arpeggiando articulation, as it would be impossible to perform the first beat of each measure exactly as written in the score. The performer has to be careful with pedaling and make sure that all the bass trichords are sustained correctly.

Section *D2*, in m. Figure 3.25, is based on material deriving from the Primary and Secondary Themes. The harmony is based on altered scale collections and Hebraic (014) trichords, as in section *C*. In m. 53–56, the left hand has an E pedal. The pitch content of m. 53 and 55 is [E, F, G#, B, C, D], which is a (013569) 6-z28 hexachord in prime form and includes two subsets of (014) trichords: [E4, G#4, F5] and [G#5, B5, C6]. In m. 54 and 56, the pitch content is based on E Aeolian.

The right-hand texture is identical to the Primary Theme, where the lower accompaniment voice moves in 32nd-notes, while the top voice has a slower melody. This melodic line, although similar to phrase *a*, also contains triplet 16th-note cells that lead to repeated notes. This melodic cell is present in phrase *c* (Figure 3.22).

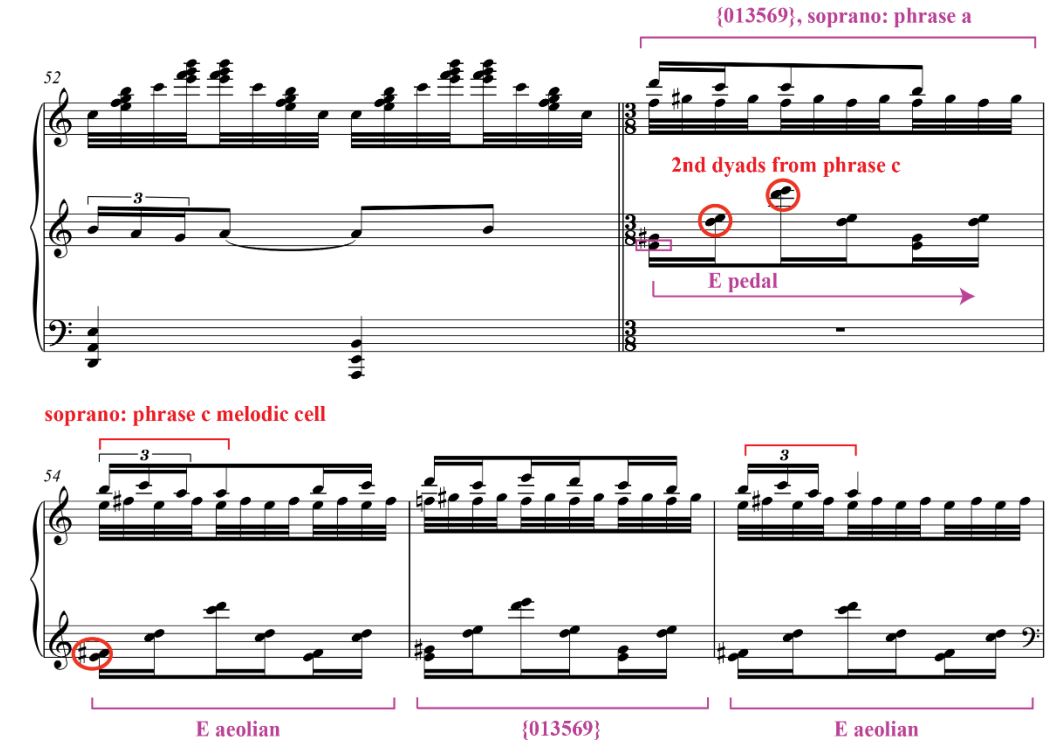

Figure 3.25: Leo Ornstein – Sonata pour le Piano – Development, Section D2

As this section progresses, in m. 57–60, Ornstein alternates between F Mixolydian and D Mixolydian collections. The final 8 bars of Section *D2* are completely diatonic and recycle quintal trichords in the bass that derive from section *D1*. Diatonic planing is used in m. 65–67, where the lower and middle staves, played by the left hand, move in parallel step-wise motion. During the entire *D* section, harmonic rhythm changes at a steady measure-by-measure 3/8 pulse. This pattern of regularity is finally abandoned in m. 68, where both hands outline pentatonic harmonies that ascend chromatically and climax prematurely in a fermata.

In terms of performance, the passages in m.61–68 can initially seem daunting in terms of fingering. It is suggested to use the thumb for playing

adjacent notes in both hands. In this way the oscillating dyads and triads in the middle and upper staves will be evenly articulated.

In m. 68, densely voiced pentatonic tremolos ascend chromatically, outlining the following pentachords: Ab major pentatonic [Ab, Bb, C, Eb, F], A major pentatonic [A, B, C#, E, F#], Bb major pentatonic [Bb, C, D, F, G]. Within this climax, harmonic rhythm has accelerated to 8th-notes.

Material from phrase *c* is also developed in the left-hand accompaniment, which outlines major-2nd intervals. The dyads have transformed to leaping 16th-notes that cross voices with the soprano melody.

Figure 3.26: Leo Ornstein – Sonata pour le Piano – Development, Section D3

Section *D3* is made up of altered scale collections and whole tone WT0 collections (Figure 3.26). Each measure alternates between these collections. Measures 69, 71, and 73–76 (beat 1) include the following pitches: [E, F, G, G#, A#/Bb, C, D]. As demonstrated in Figure 3.27, this is an altered or Super Locrian scale – a secondary heptatonic mode based on Locrian with a flat 4th – and is represented as the following whole-step interval sequence: {½, 1, ½, 1, 1, 1}.[145] This particular mode combines an octatonic lower half and whole-tone upper half.

Figure 3.27: E altered scale

Section *D3* has a time signature of 4/8 and includes rhythmic diminution in the left hand, where 16th-notes accelerate into sextuplets. The top voice brings back phrase *a* from the Primary Theme in the same pitches with minor alterations that conform to the whole tone accompaniment.

The harmonic rhythm is maintained from section *D2* where Ornstein transformed pitch collections in a measure-by-measure rate, which is 4/8 in this case, because the time signature has changed. In m. 73–76, the 4/8 rate is diminished by half, as harmonic content is developed at a quarter-note rate.

The fingering of m.73–75 requires an unconventional usage of the thumb, as in earlier sections. Even in adjacent black-key 2nd dyads in the left hand, it is suggested to utilize the thumb; otherwise, a normal-sized hand would have to contort into a very uncomfortable position.

The entire exposition and development can be heard as groups of 2-measure phrases that begin with similar rhythmic cells in the main melody. This

[145] Ron Miller, *Modal Jazz: Composition and Harmony Volume 1* (Rottenburg, Germany: Advanced Music, 1996), 32.

kind of macroscale regularity in phrase structure is a feature that is completely absent in Ornstein's experimental and expressive works.

Two bars into the recapitulation of the Primary Theme *A*, Ornstein abandons the sonata, never to revisit it again. I feel very lucky to have discovered this work, despite its being incomplete. This important work could be performed as written, or by repeating the exposition, possibly transposing the secondary subject group to the tonic and adding a few ending bars in the same diatonic style.

CHAPTER 3
EXPERIMENTAL STYLE

3.1 Style Overview, Early Modernism and Futurism

Most scholars agree that American musical modernism began with Charles Ives, Edgar Varèse, and Henry Cowell, all of whom produced a body of dense, complex, and challenging works before 1920. However, none of these composers' works was premiered in front of wide audiences before Ornstein. Ives made some futile attempts to have his music performed in public before 1921, but failed.[146] Varèse founded the New Symphony Orchestra in 1919, with the purpose of introducing modernist music to American audiences. Critical reception was so negative that the orchestra refused to perform unless Varèse programmed more traditional works. Soon after, the New Symphony Orchestra disbanded.[147] Henry Cowell faced similar difficulties with programming his music and failed to make a significant impact on American music before 1922.[148] As this new "underground" scene was emerging, Leo Ornstein entered the picture. He possessed all the ingredients for success: dazzling pianistic virtuosity, forward-thinking compositions, and charisma.

His experimental style is characterized by tone-clusters, interval-based atonality, polytonality, melodic fragmentation, ostinati, high-pitched ornamentation, and furious speed.[149] The origin of Ornstein's experimental style can be traced to the spring of 1913, when, as a 19-year-old, he traveled with his mentor, Bertha Fiering Tapper, to Europe for a concert tour. While in Paris, he visited Notre Dame Cathedral, which had a very powerful effect on him.[150] His mind was suddenly flooded with the inklings of two new works: *Impressions of*

[146] Von Glahn and Broyles, "Musical Modernism Before It Began: Leo Ornstein and a Case for Revisionist History," 33.
[147] Ibid, 34.
[148] Ibid, 33.
[149] Elder, *Cubism and Futurism: Spiritual Machines and the Cinematic Effect*, 362.
[150] Martens, *Leo Ornstein: The Man - His Ideas - His Work*, 19.

Notre Dame S056 and *Wild Men's Dance S054*.[151] This era signifies the beginning of a new, distinct experimental style, one that defined him as the leading composer of the American Avant-garde. A few weeks later, he visited Vienna and, without the help of any keyboard, he wrote down both works. "Suddenly the new thing came to me, and I began to write and play in the style which has since become identified with my name. It was music that I felt and I realized that I had become myself at last, although at first to be frank, it horrified me as much as it has since horrified others."[152] He admitted to music historian Vivian Perlis that, when he first saw the score of *Wild Men's Dance*, he was surprised by how different it looked, as opposed to how it sounded. "Oh, my goodness. So *that's* what it looks like on paper. I had been playing it, and I wrote it down and then sent it off to Schott, but when the proofs came I had to really look at the thing to make the corrections."[153]

While in Austria, he performed *Wild Men's Dance* for the great pedagogue, Theodor Leschetitzky. Upon hearing the piece, Leschetitzky could not believe that such a work could have been notated and requested the young Ornstein whether he could play it again the same way.[154] This reaction was shared by Ornstein's teacher, Bertha Tapper, who thought Leo had become insane, and had to hear *Wild Men's Dance* multiple times to be convinced that it was not an elaborate musical prank or a "sign of madness."[155] His first performance, including *Impressions of Notre Dame S056* in Christiania, Norway, was not taken seriously and he was characterized as "temporarily insane."[156]

The period between 1910–1920 was the enigmatic Stone Age of American modernism. European romantic repertoire was still thriving, while sporadic

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[151] Another source, by the name of Albert Clinton Landsberg places "Funeral March" from *Dwarf Suite S052* as the first work in Ornstein's experimental style. (Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 67–68.)
However, this does not coincide with Severo Ornstein's dating of 1915 in his website. If this is true, *Dwarf Suite S052* was written 2 years after *Wild Men's Dance S054* was initially conceived. (Ornstein, "Scores: List of Works.")
[152] Carl Van Vechten, *Music and Bad Manners*, 236.
[153] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 6.
[154] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 70.
[155] Ibid, 67.
[156] Martens, *Leo Ornstein: The Man - His Ideas - His Work*, 20.

glimpses of new musical thought remained on the sidelines. Audiences were far more likely to hear Schubert than Stravinsky, and there was a scarce demand for post-tonal or avant-garde music written by American-born composers.[157] In America, modernism was overshadowed by ragtime music and early jazz. Modernist pieces horrified the upper classes that attended concerts and expected traditional programs.

Music critics tried to pigeonhole Ornstein as a futurist composer,[158, 159] yet he never identified with this movement and brushed it off as a "generality."[160] Futurism was an Italian artistic and social movement in the early 20th century that was associated with technology, extreme dynamic contrast, and speed.[161] The *Manifesto of Futurism*,[162] written by poet Filippo Tommaso Marinetti, was a very influential book that inspired composers such as George Antheil[163] and Arseny Avraamov. It also played a major role in the formation of several Russian futurist groups.[164] Futurist music compositions incorporated elements, such as noise, "machinism," free atonality, natural sounds, and feverish rhythm.[165] An extreme example of this is Avraamov's *Symphony of Sirens*, in which he used the sounds and noises of cars, trains, boats, planes, tuned steam-driven sirens, and artillery alongside proletariat workers' songs.[166] These mechanical qualities so happened

[157] Oja, *Making Music Modern: New York in the 1920s*, 11.
[158] Gilman, "Drama and Music: Significant Happenings of the Month. Shakespeare in the New Manner. The Amazing Marriage of Mr. Leo Ornstein and the Muse," 595.
[159] He described Ornstein as the only "true-blue, genuine, futurist composer alive" (James Huneker, "Huneker's Description of Ornstein Recital," *Musical Courier* 78, no. 6 (1919): 43.)
[160] "Mind you, when I took the leap I had never seen any music by Schoenberg or Stravinsky. I was unaware that there was such a generality as 'futurism'." (Carl Van Vechten, *Music and Bad Manners*, 253.)
[161] Elder, *Cubism and Futurism: Spiritual Machines and the Cinematic Effect*, 146.
[162] Filippo Tommaso Marinetti, "I Manifesti Del Futurismo," *Lacerba*, 1914.
[163] Oja, *Making Music Modern: New York in the 1920s*, 73.
[164] Peter; Thacker Brooker, *The Oxford Critical and Cultural History of Modernist Magazines* (Oxford: Oxford University Press, 2009), 1299.
[165] Miguel Molina Alarcón, *Baku: Symphony of Sirens: Sound Experiments in The Russian Avant-Garde. Original Documents and Reconstructions of 72 Key Works of Music, Poetry and Agitprop from the Russian Avantgardes (1908-1942)* (London: ReR Megacorp, 2008), 12.
[166] Ibid, 13.

to be present in Leo Ornstein's music and became inevitably associated with futurism.[167, 168]

3.2 Rise to Fame

The turning point in his career came with his historical performances at the Bandbox Theatre, New York, in January and February 1915.[169] This same theater housed the Washington Square Players, a drama group also founded in 1915 that was dedicated to premiering modernist plays by Ibsen, Chekhov, Shaw, and O'Neill.[170]

The Ornstein concerts "really startled musical New York and even aroused orchestral conductors, in some measure, out of their lethargic method of program-making."[171] After listening to *Wild Men's Dance*, "ladies fainted in shock."[172] Music critic Carl Van Vechten went as far as to call Leo Ornstein a "high apostle of the new art in America."[173] The London Observer dubbed Ornstein as "the sum of Schoenberg and Scriabin squared."[174]Alfred Stieglitz, in his revolutionary avant-garde art magazine *"291,"* declared that Ornstein "has brought us a breath of the intentions of modern thought as applied to music."[175] At the Bandbox Theatre, Ornstein braved conventional program-making of the time by presenting repertoire composed entirely of "ultra-modern" piano music, including Maurice Ravel's *Sonatine*, Arnold Schoenberg's *Three Piano Pieces*, Op 11, Albéniz's *Iberia*, Cyril Scott's *Danse Nègre*, and Debussy's *Images*. In

[167] Jared Jones, "Seventeen Waltzes for Piano by Leo Ornstein: A Stylistic Analysis" (University of South Carolina, 2018), 11–12.
[168] Thomas Eugene Darter, "Part II: The Futurist Music of Leo Ornstein" (Cornell University, 1979), 7.
[169] Oja, *Making Music Modern: New York in the 1920s*, 11.
[170] Gerald Bordman and Thomas S. Hischak, *The Oxford Companion to American Theatre*, 3rd ed. (Oxford, New York: Oxford University Press, 2004), 124, 478, 651.
[171] Carl Van Vechten, *Music and Bad Manners*, 33.
[172] Perlis and Cleve, *Composers' Voices from Ives to Ellington: An Oral History of American Music*, 100.
[173] Ibid.
[174] Von Glahn and Broyles, "Musical Modernism Before It Began: Leo Ornstein and a Case for Revisionist History," 32.
[175] Gail Levin, "Alfred Stieglitz, Les Compositeurs Contemporains et Le Modernisme," 169.

addition to performing both sets of *Images*, he played his own *Impressions of the Thames* and *Wild Men's Dance*.[176]

Ornstein's instant fame was accompanied by a flamboyant attitude and an intellectual interest not only in music, but also in Shakespeare, Pirandello, and Dadaist art. Most intellectuals who gathered around Ornstein, such as Paul Rosenfeld, Waldo Frank, John Marin, and William Zorach, were active in other arts and viewed him as a "musical bridge to the other arts, later helping to move music out of its cultural isolation."[177] At the same time, he embodied a culturally appealing immigrant saga, arriving from Kremenchuk, Ukraine, and then rising into a position of prominence. Ornstein provided "an early model of how a modernist composer might make a career in the United States."[178]

One of the main reasons that led to Ornstein's fame was the originality of his experimental style. Musicologist Eugene E. Simpson referred to Ornstein in 1920 as "the most radical tonalist who has yet appeared on either continent (Europe and America), Schoenberg, Korngold, and Stravinsky notwithstanding."[179] Initially, critics compared Leo Ornstein to Stravinsky and Schoenberg, but it was clear that Ornstein had invented a completely different approach to dissonance, which consisted of extreme harmonic saturation that was enhanced by bombastic dynamics and virtuosity. His notorious work *Wild Men's Dance* includes dense chromatic chords containing closed voicings in each hand and spanning up to 12 notes. This technique was popularized by Ornstein's most fervent exponent, Henry Cowell, as "tone cluster."[180]

The tone cluster was championed first by Ornstein and then by Henry Cowell. The main difference between their approach is that Ornstein uses it as a mere harmonic and textural device, whereas Cowell builds a whole theoretical

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[176] Martens, *Leo Ornstein: The Man - His Ideas - His Work*, 152.
[177] Von Glahn and Broyles, "Musical Modernism Before It Began: Leo Ornstein and a Case for Revisionist History," 34.
[178] Oja, *Making Music Modern: New York in the 1920s*, 11.
[179] E E Simpson, *America's Position in Music* (Boston: Four Seas Company, 1920), 33, https://books.google.com/books?id=jcMwAQAAMAAJ.
[180] The term "tone cluster" had been used in different contexts before, such as three-voice counterpoint, but Henry Cowell was the first to use the term in its current meaning. (Denise A. Seachrist, *The Musical World of Halim El-Dabh* (Kent, Ohio: Kent State University Press, 2003), 215.)

system based on clusters.[181] The tone cluster became so popular that famous composers in the 20s like Béla Bartók, Alban Berg, and Aaron Copland would ask Henry Cowell's permission to use them.[182] Although tone clusters had rarely been used before 1913, some notable examples being the ending chord of the second movement of Heinrich Biber's *Battalia à 10 in D major* (1673), the opening chord of J. F. Rebel's *Les Éléments (*1737) and the ending chord of Mozart's *Musical Joke, K. 522*. Composers before Ornstein who used tone clusters only treat them as isolated effects; Heinrich Biber uses it to represent drunk soldiers, J. F. Rebel creates a grotesque image of chaos, while Mozart is essentially pranking the audience.

Despite the programmatic title, *Wild Men's Dance* was conceived with no conscious external inspiration, musical or otherwise. Ornstein admitted that he had never heard any music by Schoenberg or Stravinsky and that his new style "horrified" him as much as it "horrified" others. A rather implausible speculation is suggested by Broyles regarding Ornstein's original source of inspiration. Supposedly, during his European tour in 1913, Ornstein could have listened to Bartók's barbaric use of the piano, or may have come in contact with the Frankfurt Group and their focus on dance as a "cry of energy."[183] I disagree with this assumption, as Ornstein was very poor at that time and would have been unable to afford going to concerts. He practically survived off financial aid from Calvocoressi and intellectual circles at Oxford.[184] Unfortunately, there is not a lot of information regarding any encounter of his with modern music during his European tour in 1913. Maybe the percussive quality of *Wild Men's Dance* was not completely new, considering that Bartók wrote his *Allegro Barbaro* in 1911;

[181] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 342, no. 10.
[182] Halsey Stevens, *The Life and Music of Béla Bartók*, 3rd ed. (Oxford and New York: Oxford University Press, 1993), 67.
[183] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 277.
[184] "I spent sometime in Norway and Vienna, where I met Leschetitzky and then went to Paris. I was very poor…" (Carl Van Vechten, *Music and Bad Manners*, 237.)
"I went to London because my means were getting low. I had almost no money at all, as a matter of fact…. In London I found Calvocoressi's influence of great value and some people at Oxford had heard me in Paris. These friends help; besides I played the Steinway piano and the Steinways finally gave me a concert" (Ibid, 238.)

but its level of dissonance, chromatic saturation, harmonic density, and "mood of total abandonment" were surely novel.[185]

The first important person to openly embrace Ornstein's music was Calvocoressi, described by Ornstein as "a Greek who speaks all languages."[186] Calvocoressi was a specialist in modern music and gave lectures on Strauss, Debussy, Dukas, Ravel, Schoenberg, and Stravinsky.[187] He is the most important influence during Ornstein's experimentation period (1913–1914), as he exposed him to new music and encouraged him to premiere his own works. Michael Broyles, a renowned biographer of Ornstein, mentions how, later in the 1913 tour, he played "unnamed pieces by Bartók for Calvocoressi's lectures on modern music in Paris, along with works of Schoenberg, Debussy, and Ravel."[188]

Ornstein himself took pride in promoting the originality of his music. "When I wrote the *Moods, Wild Men's Dance, Notre Dame Impressions,* and *Chinatown* I was unaware of any contemporary composers or compositions. I was not acquainted with any new music at all. I was brought up in the most rigid Classical tradition. It has puzzled me greatly why I began to hear the things that I did since there was nothing in my musical background to explain the gap between my early training and what I suddenly was hearing."[189]

3.3: *Wild Men's Dance S054* – Analysis

Wild Men's Dance is the most characteristic example of Ornstein's experimental style. This work has an astonishing seventeen tempo markings and thirty-three meter changes. The harmony consists of atonal clusters with varying density and chromatic saturation. Repetition and voicing of these thick chords can also impose temporary pitch centricity. *Wild Men's Dance* is an extremely demanding work in terms of speed and dynamic range, at the same time making

[185] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices,* 277.
[186] Carl Van Vechten, *Music and Bad Manners,* 237.
[187] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices,* 277.
[188] Ibid.
[189] Leo Ornstein, "The Trend of Ultra-Modern Composition," *Musical Observer,* no. 21 (1922): 54.

use of the entire pitch range of the instrument, from the lowest E# to the highest B#.[190]

Despite Ornstein's groundbreaking emancipation from tonality and treatment of the piano as a truly percussive instrument, his works are usually formally simple. Most of his oeuvre is in binary form, and *Wild Men's Dance* is no exception, as it essentially is a miniature sonata form with a rather commonplace thematic development.

Ornstein's perception of sonata form does not follow a predetermined mold or casing into which his inspiration must be contained. He held the opinion that the distinctive quality of a sonata "lies purely in content and not in form."[191] Ornstein's biographer, Frederick Martens, mentions that he did not consider Schumann's G-Minor Sonata effective, because it was in strict sonata form. However, he praised Schumann's F-Sharp-Minor Sonata, which was composed in a freer style, as it impressed him "at once as true sonata music." When Ornstein wrote Violin Sonata Op. 31, which is in rhapsodic form, he originally used the subtitle: "owing to a certain classical severity of spirit it possesses, which has nothing to do with period, and which distinguished this kind of music from others."[192]

This work consists solely of tone clusters with a wide variety of pitch content. Dynamics never sink below *forte* and end with a bombastic *ffff*. Disjunct rhythms and bellowing tremolos combined with percussive effects give the impression of a barbaric dance. Thematic repetition is enhanced by simple rhythmic phrasing, which directs the listener away from the complex harmonic content. Oddly enough, the thematic development follows a sonata form:

> Introduction (p.1/ m.1), Exposition: Primary Theme Area (p.2/ m.3), Secondary Theme Area (p.6/ m.12)], Development (p.8/ m.2), Recapitulation: Primary Theme Area (p.16/ m.1), Secondary Theme (p.17/ m.5), Coda (p.19/ m.5).

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[190] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 231.
[191] Martens, *Leo Ornstein: The Man - His Ideas - His Work*, 46.
[192] Ibid
This subtitle is only mentioned in Marten's book *Leo Ornstein: The Man - His Ideas - His Work* and is not preserved in Severo's digital score of Violin Sonata Op. 31.

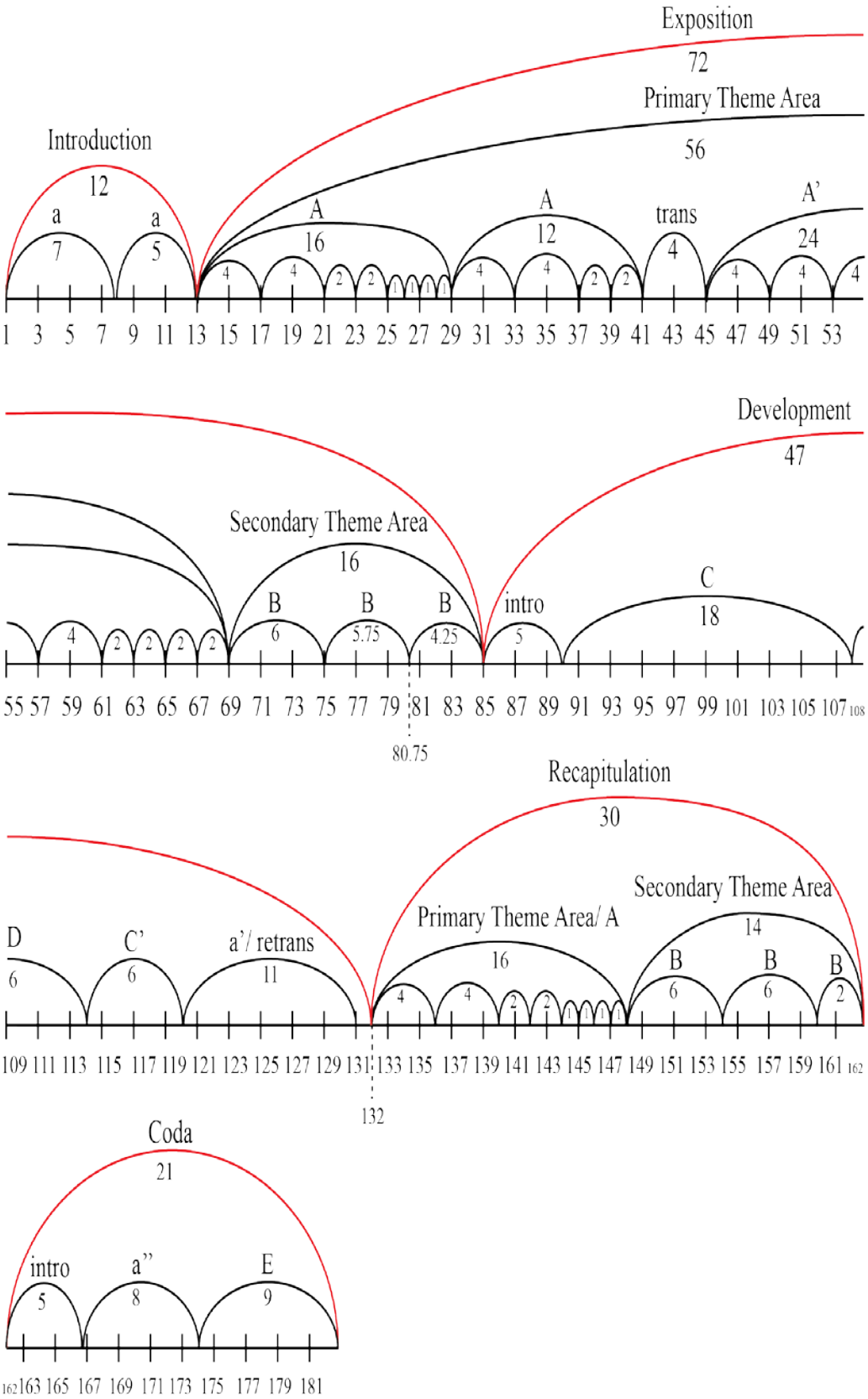

Figure 4.1: Wild Men's Dance – Arc Diagram (sonata form/phrase structure)

One problem with analyzing this work as a sonata form is related to the development section. As shown in the arc diagram of Figure 4.1, Ornstein decides to introduce new material ("C" and "D") instead of developing the Primary and Secondary Themes. However, these new sections, have some textural and rhythmic similarity to the Primary Theme. There is also a short development of the introductory material, which functions as a retransition. An alternative interpretation of this work would be that it really is an arch form: intro- A- B- C- D- C- A- B- coda. This is a less convincing interpretation, because the return of A and B should be in reverse order: intro- A- B- C- D- C- B- A- coda.

Foreshortening of phrases and fragmentation of material are pivotal aspects of this work and are trademarks of Ornstein's experimental style. This can be observed in Figure 4.1, where the internal structure of the Primary Theme's exposition and recapitulation undergoes a gradual fragmentation and diminution. Motivic material in the exposition is symmetric and unfolds in groups of multiples of 8. The Secondary Theme phrase structure does not include any fragmentation and has almost isometric proportions.

The development makes use of the full range of the piano. As opposed to the exposition, there is a total lack of melody and thematic repetition. In this *perpetuum mobile* section, the pianist is required to display an extreme dynamic range and stamina.

The recapitulation is significantly shorter than the exposition. The Primary Theme is restated only partially with some metric and textural changes. The Secondary Theme is also cut short. An interesting feature is that the right hand recapitulates both themes almost without any changes, whereas the left hand and the meter undergo drastic transformations.

Finally, the coda combines elements from the introduction and section *D* in a homophonic frenzy of 10-voice chords hammered in the extreme ends of the keyboard.

The arc diagram of Figure 4.1, also shows a foreshortening and fragmentation in a macroscale level. All main sections after the introduction are gradually getting shorter and shorter: Exposition > Development> Recap> Coda.

The entire introduction is monophonic. In the opening measure, a Baroque-like siciliana motif is introduced. It is in 3/8 time and includes a recurring dotted-16th-note feel. The introduction consists of the following two phrases (Figure 4.2):

1) *a*, with a length of 7 measures (p.1/ m.1–7)

2) *b*, with a length of 5 measures (p.1/ m.8–p.2/ m.2)

In phrase *a*, the pianist alternates between two tone-clusters, one in each hand: [A3, B3, C4, C#4], which is a chromatic (0124) 4–2 tetrachord in prime form; and [F#3, G#3, A#3], which is a diatonic (024) 3–6 trichord. The outer span of both chords is a major 3rd: A- C# and F#- A#. In m.8-9, overall pitch density increases with two chromatic clusters: a (012345) 6–1 hexachord and a (01235) 5–2 pentachord. The outer span of these chords is also a fixed interval of a perfect 4th: C- F and F#- B. Already in the first 8 measures, the pitch content includes all 12 pitches excluding G. Ornstein treats harmonies like sound-masses: polyphonic sonorities with varying degrees of chromatic saturation. Such a concept was later explored by Cowell, Varèse, and Ligeti.

Figure 4.2: Wild Men's Dance – Introduction, p.1/ m.1–9

Ornstein transforms the siciliana motif repetition of p.1/ m.1 into roaring tremolos, first in 16th-note triplets and finally in 32nd notes (m.7). Phrases *a* and *a'* follow the same logic of rhythmic augmentation: gradually faster and louder off-beat tremolos swell into *sforzandi* that are always placed in beat 3 (p.1/ m.3, 4, 7, 10, p.2/ m.2). This metric emphasis is also highlighted by *marcato* accents (p.1/ m.1, 8) and is present throughout the introduction. Rhythmic diminution and fragmentation, a central technique in Ornstein's experimental works, can be traced in the gradual acceleration of each tremolo (16th-note triplets< 32nd notes) and the proportions of phrase *a* and *a'* (*a* > *a'*). The exponential increase of dynamics and tremolo speed evokes the image of a "savage" bellowing and growling.

In the following diagram, Figure 4.3, the exposition of the Primary Theme is analyzed in terms of pitch content and phrase structure. The siciliana motif becomes the connecting thread linking introductory material to the exposition of the Primary Theme.

Primary Theme *A* begins on p.2/ m.3 (Figure 4.3). Ornstein notates the exposition in the polymeter of 3/8 over 4/8. The polyrhythmic relation of 3-over-4 in combination with 5-voice and 4-voice clusters played in near proximity produces an incredibly dense texture that, at first hearing, sounds haphazard. Out of this haze of notes, a melodic theme is unveiled. The siciliana figure from the introduction is extended to form a four-measure period. The persistent repetition of C-sharp on top and Eb in the bottom implies temporary pitch centricity. All pitches in the right hand, excluding the soprano voice, derive from the Hebraic trichord (014). In the second bar, one extra note is added to form a (0147) tetrachord set (p.2/ m.4). This (014)-based inner voice of the right hand remains static, while a chromatic soprano melody spirals around C-sharp in half-step motion outlining 4 pitches: C#, D, D#, E, which form a (0123) 4–1 tetrachordal set. This textural scheme is maintained until p.3/ m.7.

When performing this introduction, one can use the right-hand thumb to play the minor-2nd dyads [E- F] and use fingers 4 and 5 to bring out the top melody. It is advised to avoid a kind of romantic voicing technique that delineates

between “top-heavy” and “bottom-soft”, in terms of hand weight. These tone-clusters sound fiercer when performed as monolithic blocks.

The left-hand accompaniment is in 4/8 and alternates between two diatonic tone clusters: *“x”* [Eb3, Ab3, Bb3, C4], which is (0247) 4–22 in prime form and *“y”* [C#4, D#4, F#4], which is (025) 3–7 in prime form. All these pitches form the superset [C#, D#, F#, G#, B♭, C], which is a (023579) (6–33) hexachord in prime form and a subset of the D-flat major scale. Rhythmic groupings of the two clusters, *x* and *y*, are usually in the following form: *xyy* (p.2/ m.3, 4, 8, 10, p.3/ m.1, 3, 5, 6) and *yxx* (p.2/ m.7, 9, 11, p.3/ m.2, 4, 7). Ornstein alternates between these two rhythmic groupings in an irregular, unpredictable way. Accents are present throughout the left hand and suggest a suspension of “strong vs weak” metric hierarchy. The listener’s sense of meter mostly relies on the regularity of motif *a2* that sets off each 4-bar period.

Another interesting feature in the exposition is the foreshortening of Primary Theme *A*, which is grouped in the following way:

1) 4-bar phrase: (Figure 4.3, m.1–4). The soprano initiates the siciliana motif, then moves in step-wise motion and outlines the pitches [C#5, D#5, D5, E5], which is a (0123) 4-1tetrachord set.
2) 4-bar phrase: (Figure 4.3, m.5–8). The soprano initiates the siciliana motif, then moves in step-wise motion and outlines the pitches [C#5, D5, D#5, Db5, C5, B4], which is a (01234) 5–1 pentachord set.
3) 2-bar phrases: (Figure 4.3, m.9–10/11–12). The soprano initiates the siciliana motif, then highlights the upper and lower chromatic neighbor tones of C: [C5, C#5, B4], which is a (012) 3-1 trichord set. The group is repeated once. As shown in Figure 4.3, this melodic cell, marked *a2,* derives from the first 4-bar phrase.
4) 1-bar phrases: (Figure 4.3, m.13–14). The soprano repeats melodic cell *a2* [C5- C#5- B4], the same (012) 3–1 trichord set as the tail end of the previous 2-bar phrase. The exact same melodic cell is stated 4 times, while the siciliana rhythmic motif is finally abandoned.

The above list reveals that there is a relation between phrase foreshortening and melodic pitch content. As phrases gradually shrink, the melody also decreases in overall pitch content. This is a technique Ornstein will use throughout this work and also in "Joy" from *Three Moods*.

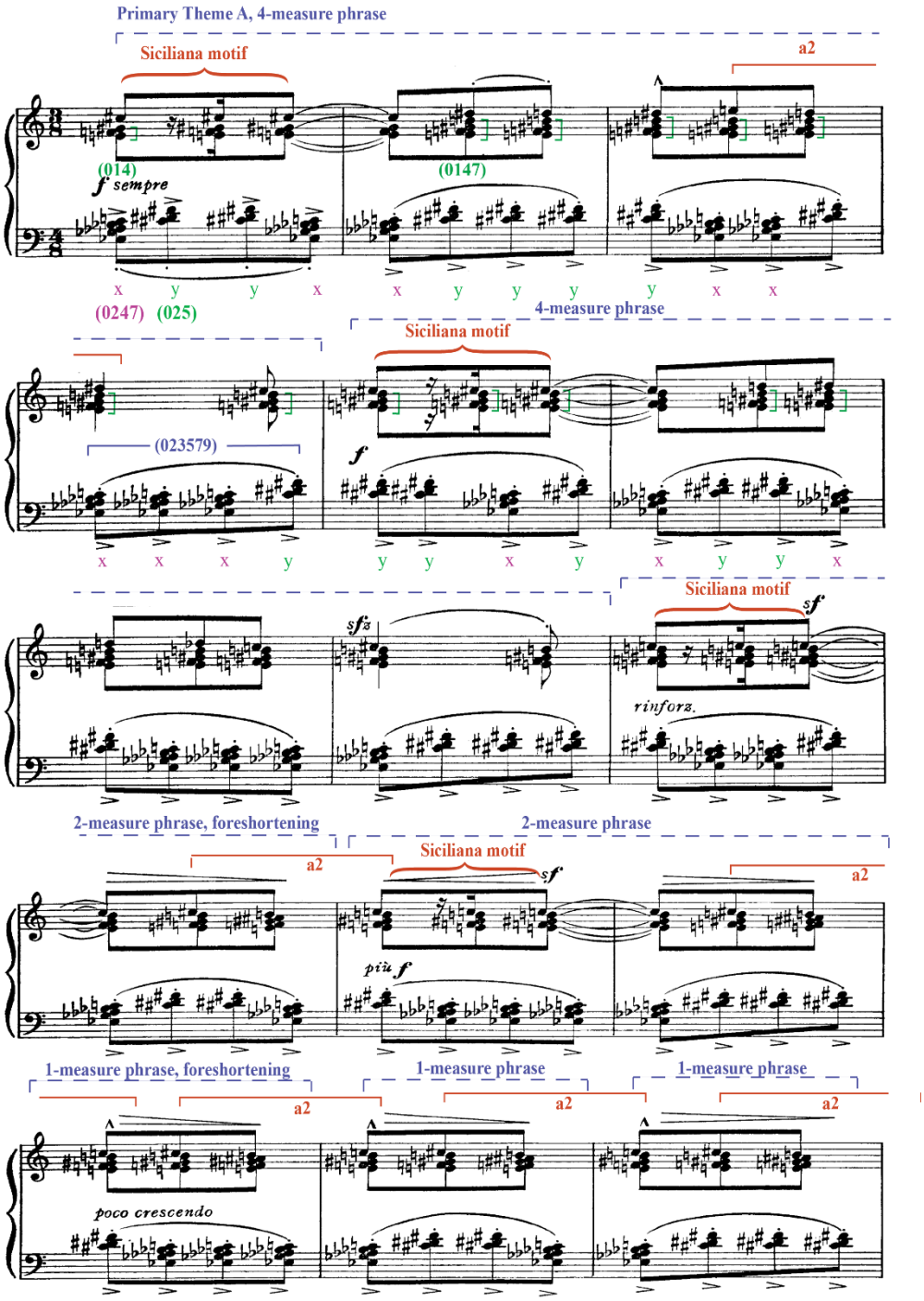

Figure 4.3: Wild Men's Dance – Exposition, Primary Theme A, p.2/ m.3–8

Once more, a modernist technique of fragmentation is juxtaposed with a conventional 16-bar period structure (p.2/ m.3- p.3/ m.7). This kind of foreshortening sounds like a lagging vinyl recording where the needle is stuck and the same music is repeated over and over again. However, it feels organic and dance-like because of the grouping of these phrases. The 4-bar structure is maintained even during the foreshortening process. 2-bar groups are repeated twice, in order to fill 4 bars. Also, the single bar phrases are repeated four times for the same purpose.

Another way to interpret the 16-bar excerpt in Figure 4.3 is as a single parallel period. The first 8 bars begin with the siciliana rhythmic motif and act as the antecedent, while the last 8 bars also begin with the siciliana motif, but act as the consequent, because they include a different ending (melodic fragmentation and foreshortening).

In the *Meno mosso* section (p.3/ m.8, Figure 4.4), the four-bar rhythmic structure of Primary Theme *A* is maintained in the right hand. The soprano melody moves in half-step motion and spirals around the notes F, F#, G, and G#, which can be described as a (0123) 4-1 tetrachord set. The rest of the pitches of the right hand are based on a $A^{(add2)}$ tetrachord (0247) 4-22. This tetrachord has an identical voicing and ostinato rhythm as the (0147) 4-18 set used on p.2/m.4. In the left-hand accompaniment, Ornstein uses a regular 3/8 waltz figure. In the accompaniment, each bar alternates between two tone-clusters in the following rhythm arrangement: *xyy*. In p.3/ m.8– p.4/ m.7, every group of two *y* chords, in beats 2 and 3, repeats the same diatonic tetrachord (F#, G#, A#, B#), which is a (0246) 4–21 set in prime form. The first tone-cluster in each bar outlines dense 5-voice and 4-voice chords that have drastically varying pitch material. A list of the left-hand bass cluster in every bar (beat 1) can be analyzed as the following sets (p.3/ m.8- p.4/ m.7):

1) [Ab, Bb, Db, Eb, F], which is a Db major pentatonic cluster
2) [Bb, C#, D#, E, A], which is a (01367) 5–19 pentachord cluster in prime form
3) [G, Ab, Bb, C#, D], which is a (01367) 5–19 pentachord cluster in prime form

4) [F#, G#, A#, C, D], which is a (02468) 5–33 pentachord cluster in prime form

5) [A#, C#, D#, E], which is a (0136) 4–13 tetrachord cluster in prime form

6) [C#, D#, E#, F#, A], which is a (02458) 5–26 pentachord cluster in prime form

7) [Ab, Bb, C, Db, E], which is a (02458) 5–26 pentachord cluster in prime form

8) [F, F#, G, Ab, D], which is a (01236) 5–4 pentachord cluster in prime form

9) [G#, A#, B, C] which is a (0124) 4–2 tetrachord cluster in prime form

10) [C#, D#, E, F] which is a (0124) 4–2 tetrachord cluster in prime form

11) (G#, A, Bb, C#, D) which is a (01256) 5–6 pentachord cluster in prime form

12) (G, Ab, Bb, C, D) which is a (01357) 5–24 pentachord cluster in prime form

This list reveals an ever-changing harmonic palette, but at the same time, a regular grouping of identical sets that are always placed next to each other in pairs. As it is demonstrated above, pairs 2–3, 6–7, and 9–10 are identical. All of these collections, except no. 1 (pentatonic), include (013) 3-2 and Hebraic (014) 3–3 trichords as subsets. The (013) trichord is a subset of collections no. 2, 3, 5, 12. The Hebraic (014) trichord is a subset of collections no. 2, 3, 6, 7, 8, 9, 10, 11.

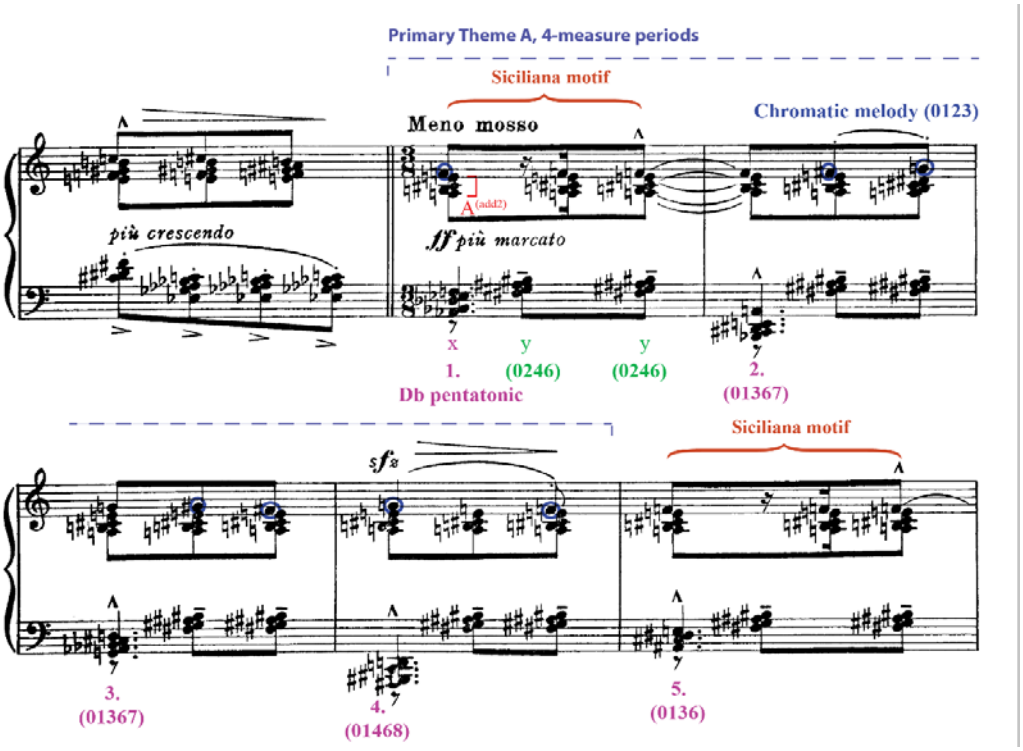

Figure 4.4: Wild Men's Dance – Exposition, p.3/ m.8

Ornstein demands virtuosity and technical control similar to stride piano, as the pianist leaps between 4-voice and 5-voice *fortissimo* clusters that are hammered in rapid succession. Pedaling here should allow the bass to be sustained and create a wash of sound.

Intensifying tremolos, based on the soprano melodic figure from p.3/ m.4, transition into the homophonic *Molto allegro* section (p.4/ m.12). Pitch content becomes gradually saturated and dissolves into purely chromatic (0123) sets. All tone clusters until p.6/ m.12 are chromatic (0123) 4–1 tetrachords. Any harmonic or melodic sense that was present before in the work has been completely deconstructed. Perpetual 8th-note clusters in the left hand act as textural doubling and shift registers in every measure, while the right-hand maintains a 4-bar phrase structure. Chromatic tetrachords are constantly disposed by octaves and jump erratically between the middle and high registers of the piano. Ornstein's writing reflects a total emancipation of tonal harmony and a strong basis in conventional periodic 4-bar phrase structure.

The Secondary Theme *B* is introduced in the *Molto animato* section in p.6/ m.12 (Figure 4.5). Falling 32nd-note gestures leading to a group of two minor-3rd dyads form phrase *b*, which is repeated five times in augmentation and diminution. Phrase *b* is repeated two times and lasts for four 8th-notes in total. Phrase *b'* lasts for two 8th-notes, and phrase *b''* lasts for three 16th-notes. The exact same rhythmic pattern of contraction and expansion is repeated on p.7/ m.3–8 and p.7/ m.8–p.8/ m.1. This kind of technique can be thought as a rhythmic isomorphism. Ornstein also uses it in many other experimental works, such as "Joy" from *Three Moods*.

For the first time in this work, in Secondary Theme *B*, texture has been somewhat thinned out with single-note arpeggios appearing in the right hand. The falling four-pitch 32nd-note arpeggio always spans a minor ninth [B5, A#4], and the pitches derive from a (0237) 4–14 tetrachordal set, or a G#min$^{(add2)}$ chord. The same set with identical voicing is also used in p.7/ m.3 [Ab5, Eb5, Bb4, G4], p.7/ m.8 [C5, G#4, D#4, B4], and in the recapitulation of the *B* section (p.17/ m.5). Left-hand rising gestures alternate between black- and white-key diatonic dyads

and triads. This juxtaposition of black and white-key clusters is a recurring technique in *Wild Men's Dance* and many other experimental works by Ornstein, such as "Joy" from *Three Moods*.

The same undulating process of shortening and expanding short phrases is continued in the next page. Falling four-note arpeggios always span a minor ninth and lead to a minor-3rd dyad. Left-hand rising gestures continue to alternate between black-key triads and white-note dyads on p.7/m.3–p.8/m.1.

Figure 4.5: Wild Men's Dance – Secondary Theme B, p.6/ m.12

In p.8/m.2–p.15/m.12, melodic fragments from the introduction and the *A* section are developed as transitional material. Dense tone clusters confined in the smallest possible space are transformed into multiple simultaneous textures spanning extreme ranges. Wild tremolos with fierce

dynamics demolish the keyboard like jackhammers, moving gradually deeper, until both hands reach the lowest register of the piano. One can only imagine the shock and horror of an American audience of 1913–1914 listening to these explosive dissonant sounds coming out of the piano for the first time.

In the *Presto* section (p.8), two rapidly alternating clusters gradually swell from *f* to *ffff* to produce an intensely dissonant growling effect. This gesture derives from the 32nd-note tremolo of the introduction (Figure 4.6). In Figure 4.6, the pianist is required to use unconventional fingering and wrist position to play these very narrow overlapping tone-cluster voicings. The right-hand chords are based on a (013468) 6-z24 prime form hexachords, while the left-hand chord is based on a (01258) 5-z38 pentachord. Both hands combine to play all chromatic notes between G3-E4; therefore each chord is a complementary subset of the following chromatic collection: (0123456789).

A pianist performing the passage below would have to position the left hand with a low wrist under the right hand with a high wrist. It is suggested to finger the G# in the right hand with the 2nd finger. This way, the hands don't get in the way of each other.

Figure 4.6: Wild Men's Dance – transition, p.8/ m.2

The *Vivo* section marks the beginning of the development. In the arc diagram (Figure 4.1), this section is labeled as "*C*." A *fff* double cluster drops like a bomb in the bass and is followed by constant 16th-note triplets in the high register. In Figure 4.7, hand distribution has spread across three staves. In the bass, chromatic clusters are played first with both hands and then just with the left hand. The bass chords outline a (012) 3–1 trichord and a (013479) 6-z49 hexachord. Their outer span is equivalent to interval class IC 1 (major 7th,

diminished 8ve, minor 9th). The top staff 16th-note chords have a combined pitch content of a (0135) 4-11 tetrachord, while the middle staff chords form (016) 3–5 trichords.

The top staff can be challenging to perform for a pianist with small hands; but, if the notes [G#5, A#5] are fingered with the thumb, this excerpt becomes significantly easier and manageable.

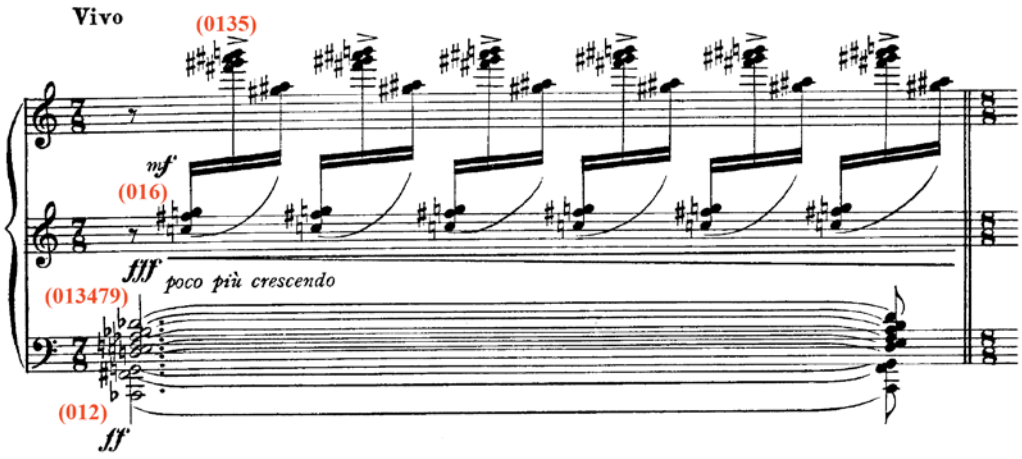

Figure 4.7: Wild Men's Dance – Development/ "C", p.9/ m.1

In the following measures, the middle voice moves in chromatic (012) 3–1 trichord sets, (01) dyads and (0123) 4–1 tetrachords. The middle voice clusters played by the left hand have an arbitrary melodic contour, as they sometimes leap up and down, or repeat a few times. Performing these chromatic clusters accurately in tempo can be challenging. One way to practice this section is by slowing down the tempo, but still maintaining a fast forearm motion that stops right above the required cluster silently, and only playing the notes after accuracy is certain. This technique can gradually speed up until the pianist can play the excerpt more naturally without stopping.

In the *Presto con fuoco* section (Figure 4.8), Ornstein juxtaposes white- and black-key clusters. He very frequently uses this polychordal technique for transitional material in his experimental works (another example of this will be discussed later in "Joy" from *Three Moods*). The overall textural range is abruptly shrunk from 6 octaves (p.10/ m.3) to less than an octave. The right hand in the

top staff outlines pentatonic black-key (02479) 5–35 pentachords, while the left hand in the bottom outlines diatonic white-key (0235) 4-10 tetrachords. The alternating triplet 16th-note clusters first move in groups of four 8th-notes (p.11/ m.1–4). By p.11/ m.7, they move in groups of a single 8th-note. On p.11/m.1 – p.12/ m.4, both hands move in parallel and follow a chaotic melodic contour. In these measures, the harmonic material undergoes a process of gradual chromatic saturation and increasing density of voices. Sometimes chord shapes become narrow and overlap between the hands. Also, dynamics have an extremely varied loud spectrum ranging from *f, ff, più ff, sff,* to *fff* and are accompanied by very heavy articulations, such as *il più marcato possible*. Ornstein's pioneering musical creativity is on full display here. His treatment of this long *crescendo* is very similar to orchestration techniques utilized by Lutoslawski and Ligeti, as he not only expands dynamics, but also density and pitch space.

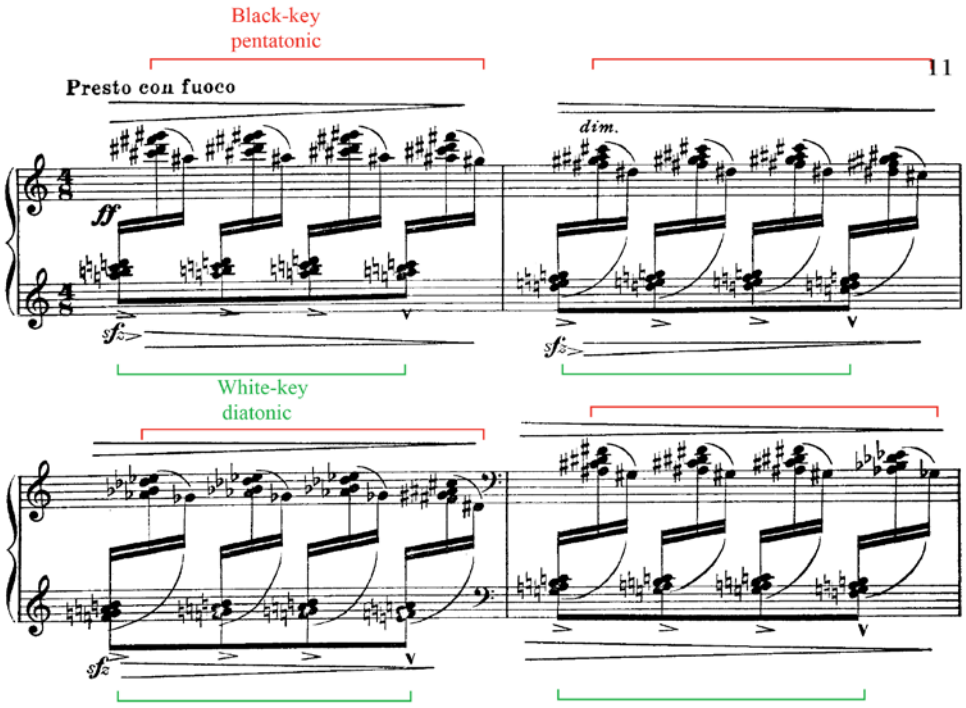

Figure 4.8: Wild Men's Dance – Development/ "C", p.11/ m. 1–4

The *Furioso* section (Figure 4.9) is also labeled as "D" in the arc diagram of Figure 4.1. In this excerpt, rhythmic activity thins out into 8th-notes, and dense clusters are played by both hands *fortissimo* in homophony. The registral

arrangement spreads out across 7 octaves, which is even wider than preceding musical material. The bass is sustained for a whole note every bar and outlines clusters with an outer voice span of a minor 9th. Chromatic (0123) tetrachords in extreme *marcato* dynamics (*il più marcato possible*, p.12/ m.6) are hammered by the left hand. The same process from the *Vivo* section is applied here, both in terms of pitch content in the bass and middle staves and in overall arrangement (Figure 4.7). The hexachords in the top staff vary in pitch content, but the bottom two notes of these chords are always adjacent white-keys. This allows the pianist to play both notes with one thumb.

An interesting rhythmic aspect of this passage is the placement of the *sforzandi* on every third 8th-notes. These dynamic inflections create a metric disposition in the right hand and superimpose a 3-over-8 polyrhythm.

Tremolo gestures and 4/8 phrases from p.11 are brought back in p.14/ m.2. Every measure sinks deeper in register, and, by p.15, the pianist is banging chromatic trichords and tetrachords in the lowest register of the instrument. These chords are played in a very unusual dynamic: *sfff*.

The retransition to the recap on page 15 consists of swelling 32nd-note tremolos and fragmented dotted rhythmic figures, which derive from phrase *a* material in the introduction (Arc Diagram- Figure 4.1). In Figure 4.9, the preceding texture has transformed to chromatic (012345) 6–1 hexachords in the right hand. By p.12/ m.6, the bass and middle voice enter, outlining a (01267) 5–7 pentachord and chromatic (0123) 4–1 tetrachords. As before, the widely spaced clusters are based on a minor-9th span, and the middle voice has a chaotic melodic contour that moves erratically in opposite directions. This section is sparser in rhythmic density with more rests between each tremolo gesture and contains four 8th-note rests before the recapitulation on p.12, which gives the performer some time to breathe. Interestingly enough, this brief moment of temporary relief is the longest silence in the entire work.

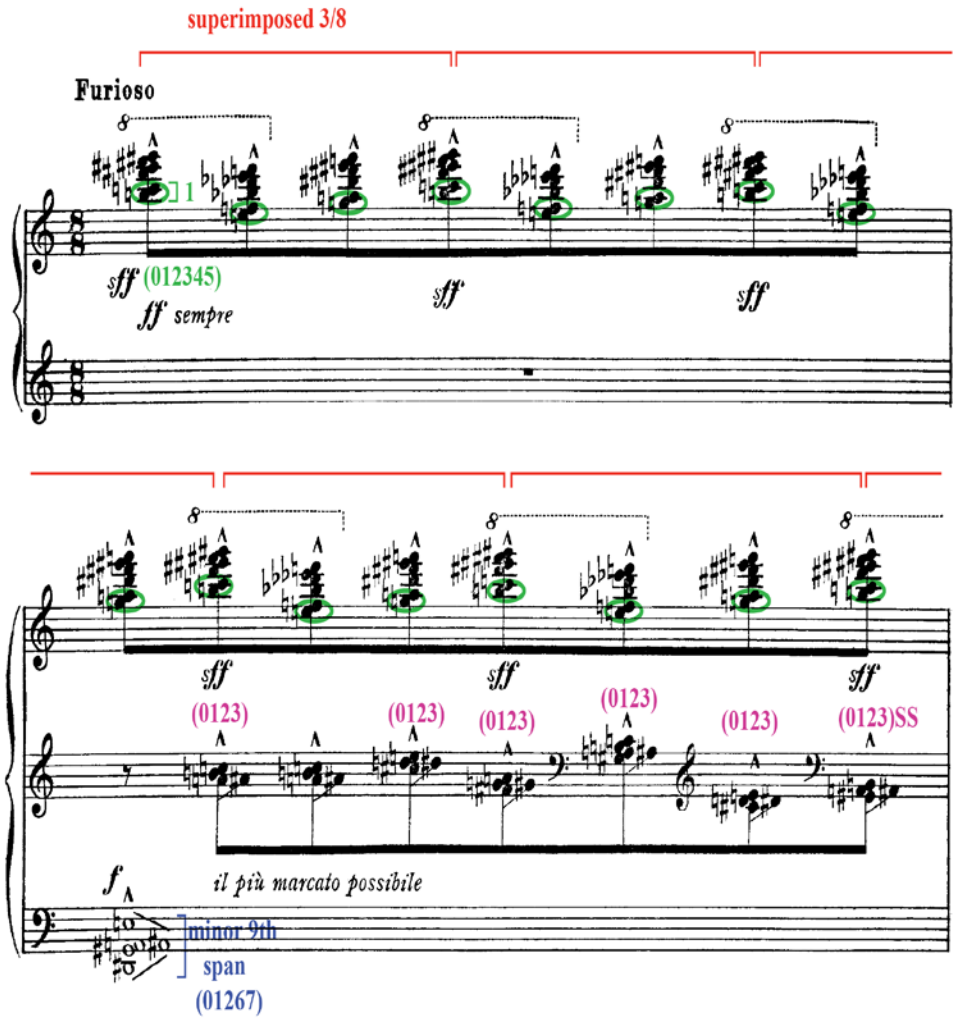

Figure 4.9: Wild Men's Dance – Development/ "D," p.12/ m.5

Recapitulation of the Primary Theme *A* occurs on page 16 (Figure 4.10). Instead of the expected polymeter of 3/8 and 4/8 from the exposition, Ornstein reimagines the time signature as 3/8. The right hand is playing phrase *a*, while the left hand outlines beats 1 and 3 with thick tone clusters. This results in a more homophonic texture than the exposition and, at the same time, highlights heavier bass gestures and chromatic saturation. The recap of the *A* theme lasts exactly 16 bars and can be correlated and mapped on the following respective bars from the exposition: p.2/ m.3–p.3/ m.7 (Arc Diagram – Figure 4.1).

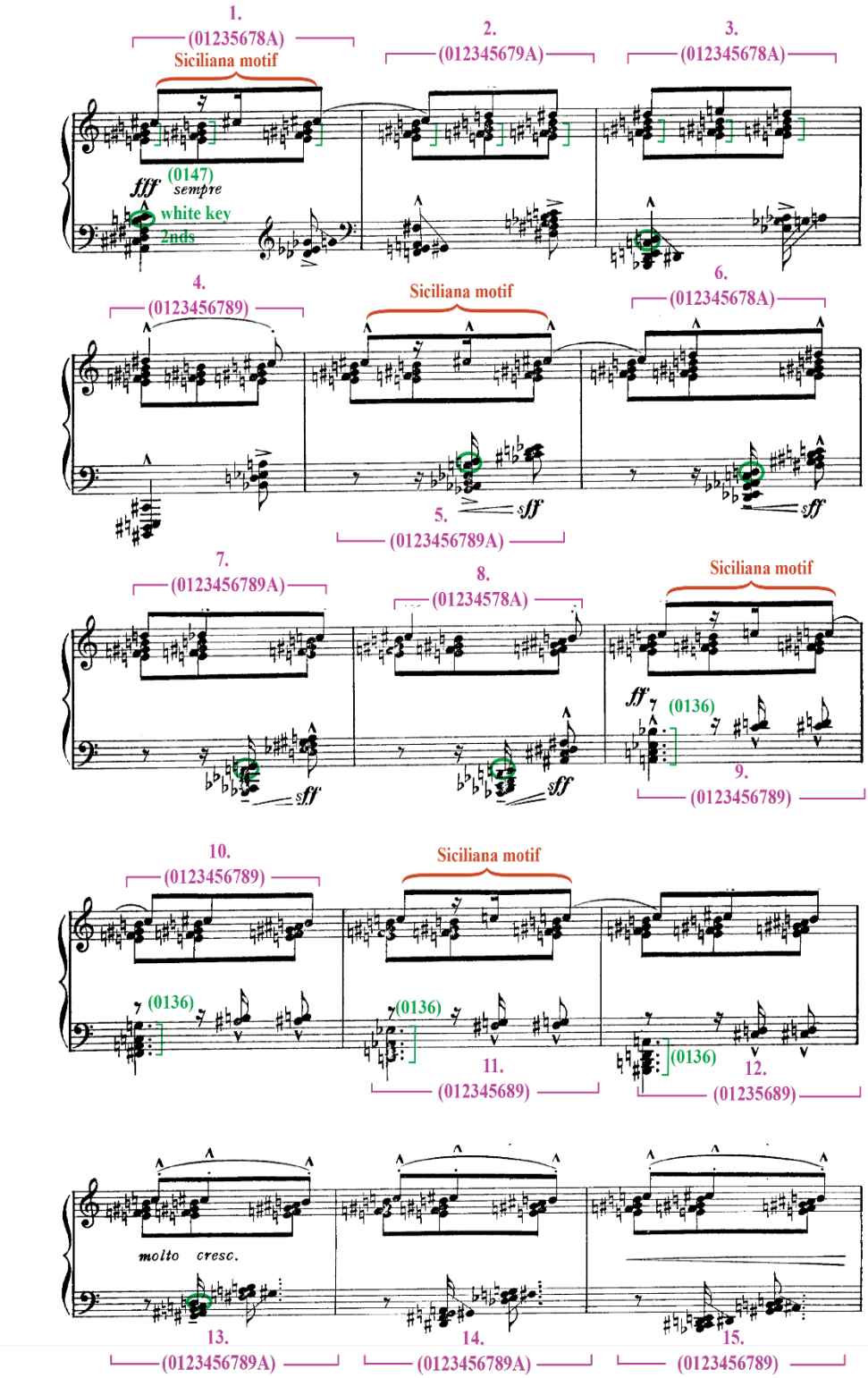

Figure 4.10: Wild Men's Dance – Recapitulation of Primary Theme, p.16/ m.1– p.17/ m.3

The chords of the left hand in p.16/ m.1–p.17/ m.4 never repeat the same pattern and consist of very dense pitch content in terms of both pitch classes and total voice quantity. Voice density of each varies greatly. These tone clusters exhibit isomorphisms of outer voice span and interval structure. Each left-hand chord reacts to the metric hierarchy of the compound 3/8 meter:

On beat 1: chords are widely voiced and outline intervals bigger than an octave, mostly a minor 9^{th} (first beat of Figure 4.10– m.2, 3, 9, 10, 11, 12). There is an abundance of (0136) 4–13 tetrachords (m. 9–12). The top two notes are usually two adjacent white keys highlighting minor or major 2^{nds} (Figure 4.10– m.1, 3, 5, 6, 7, 8, 13). Many of these chords are also polychords consisting of two halves; one with adjacent white-keys and another with adjacent black-keys (Figure 4.10– m.1, 5, 6, 7, 8, 13). All harmonies appear in the bass tessitura and fluctuate between octave registers 1–4. This metric hierarchy occasionally shifts from beat 1 to the 2^{nd} half of beat 2 (Figure 4.10–m.5-8, 13-15).

On beat 3: chords are narrowly voiced and outline intervals smaller than an octave that alternate between minor 2^{nds}, major 3^{rds}, perfect 4^{ths}, tritones, perfect 5^{ths}, minor 6^{ths}, diminished 7^{ths}/major 6^{ths}, and major 7^{ths}. These sonorities appear in the baritone-tenor tessitura and fluctuate between octave registers 3–4.

As the recapitulation progresses the accompaniment collapses into gradually more compact tetrachords. It is interesting to observe the chromatic saturation of pitch content in each bar as a whole (p.16/ m.1–p.17/ m.3, Figure 4.10):

1) (01235678A): all pitches included except 3: D, G, A
2) (012345679A): all pitches included except 2: C# (excluding the tie), Bb

3) (012345678A): all pitches included except 2: C, Bb
4) (0123456789): chromatic aggregate, all pitches included except 2: F#, G
5) (0123456789A): chromatic aggregate, all pitches included except 1: C
6) (012345678A): all pitches included except 1: G, A
7) (0123456789A): chromatic aggregate, all pitches included except 1: D#
8) (01234578A): all pitches included except 3: F, G, C
9) (0123456789): chromatic aggregate, all pitches included except 2: F#, G
10) (0123456789): chromatic aggregate, all pitches included except 2: D, D#
11) (012345689): all pitches included except 3: C#, A, A#
12) (01235689): all pitches included except 4: C, D#, F#, G
13) (0123456789A): chromatic aggregate, all pitches included except 1: D#
14) (0123456789A): chromatic aggregate, all pitches included except 1: D
15) (0123456789): chromatic aggregate, all pitches included except 2: F#, G
16) (012345678A): all pitches included except 2: G, A

After carefully observing the evolution of pitch space in the first 16 bars of the recapitulation, a pattern arises. The most chromatically saturated bars are grouped together. Sets consisting of 11 notes, including chromatic aggregates, appear as follows: No. 5–7, 13–14. Also, sets consisting of 10 notes, including chromatic aggregates, appear as follows: No. 2–4, 9–10, 15–16. On the other hand, sets that exclude 3 notes from the chromatic scale never appear in close proximity: No. 1, 8, 11. There is only a single set that excludes 4 notes from the chromatic scale: No. 12.

In terms of phrase structure, the process of foreshortening and fragmentation from the exposition is repeated (Figure 4.3). There is a 16-bar parallel period consisting of an 8-bar antecedent and an 8-bar consequent. The melody in the top voice of the right hand preserves its melodic contour from the exposition:

1) 4-bar phrase: p.16/ m.1–4. The soprano is identical to p.2/ m.3–6 of the exposition.
2) 4-bar phrase: p.16/ m.5–8. The soprano is identical to p.2/ m.7–10 of the exposition.
3) 2-bar phrases: p.16/ m. 9–10 and p.16/ m. 11–12: The soprano is identical to p.2/ m.11–p.3/ m.1 and p.3/ m.2–3 of the exposition.
4) 1-bar phrases: p.16/ m. 1, 2, 3, 4. The soprano is identical to p.3/ m. 4, 5, 6, 7 of the exposition.

Ornstein utilizes a similar process in the recapitulation of the Secondary Theme *B* beginning on p.17/ m.5. The right hand restates the (0237) 4–14 tetrachord cell from phrase *b*, while the left hand plays a polyrhythmic transformation of the accompaniment from the exposition (p.6/ m.12) with different pitches. Rising gestures of alternating black-key and white-key diatonic, chromatic and (014)-based clusters in the left hand are phrased in groups of nine: first nonuplets over a 6/8 (p.17/ m.5–6), then in quadruplets and quintuplets over 3/8. As the left-hand tuplets rise in overlapping 014 trichord sets, they overlap and then cross the right-hand melody. This contrary motion effect resembles Baroque repertoire for the double-register keyboard, such as Bach's "*Goldberg Variations*". This kind of dramatic hand motion is impressive to watch as an audience member, because the pianist has to gradually stretch and cross hands. The overlapping tone clusters combine together to form (01245) 5–3 pentachords.

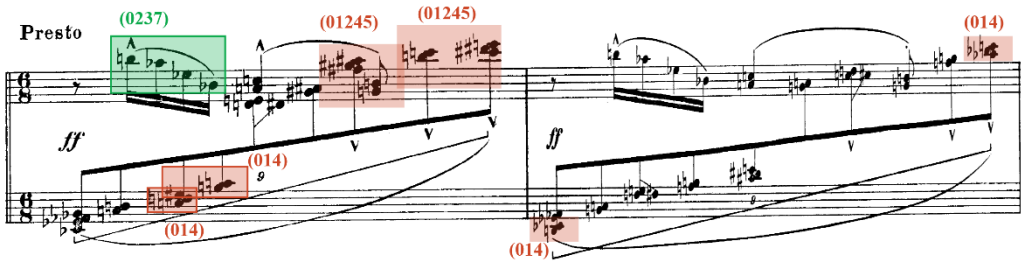

Figure 4.11:Wild Men's Dance– Recapitulation of Secondary Theme, p.17/ m.5–6

On p.18/ m.4, another impressive hand overlap occurs, where the right hand plays a [C, E] dyad in the 4th octave tessitura, while the left hand crosses over the right and plays a (0123) tetrachord (prime form) in the 6th octave tessitura, spanning almost 3 octaves.

The recapitulation of the Secondary Theme maintains the same pitches and rhythm in the right hand as in the exposition p. 6/ m.12. However, Ornstein transforms the metric context: what was before a series of additive time signatures now has been transformed into regular 6/8 and 3/8 meters. All syncopated left-hand gestures have now shifted to the beginning of the 1st beat. Despite these metric changes, the right hand follows the same expanding and contracting fragmentation process as shown in Figure 4.5.

In the coda, Ornstein combines diatonic black-key and white-key clusters that alternate between each hand. The right hand plays diatonic white-key tetrachords, while the left hand plays black-key pentatonic pentachords and tetrachords. The tremolo begins by repeating the same two chords on p. 19/ m. 5 and in the next measure, proceeds by ascending all the way up to the 6th octave tessitura.

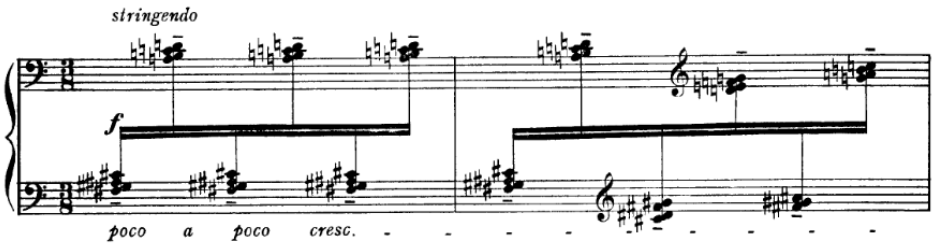

Figure 4.12: Wild Men's Dance – Coda, p.19/ m.5–6

This kind of conflict between black keys and white keys is a technique characteristically used by Debussy in "Feux d'artifice" from *Préludes Book II.*[193] Parallels to Debussy's music are also explored later in Figure 4.22.

[193] Rika Uchida, "Tonal Ambiguity in Debussy's Piano Works" (University of Oregon, 1990), 14.

Ornstein would frequently program works by impressionist composers in his piano concerts. Most of this music, notably Ravel's *Gaspard de la Nuit* and *Sonatine*, were "introduced to New York audiences for the first time."[194] While composing *Wild Men's Dance S054*, his career as a pianist[195] was at its peak, and he would frequently perform highly virtuosic and modern works during that time. After having heard him practice before his concerts in the Bandbox Theater, in New York, Frederik Martens described how Ornstein "had practically memorized all that Ravel and Debussy had written for the instrument."[196]

Debussy and Ravel clearly had an influence in his own compositional method. As a composer, Ornstein was particularly interested in the subtleties and underlying harmonic tension of their music. In the following excerpt, taken from an accompanying essay to Ornstein's *Cathedral* (written by the composer himself), he expressed his deep admiration for Debussy and Ravel in a very poetic manner:

> *"Debussy or Ravel, in which sometimes the finest passages have the strength of mountains in them, we will insist on asking where is the power and strength in this piece, showing immediately that we seek outward signs of strength such as great crashy chords. Is it not possible that a very fine and delicate passage can have the strength of night in it, and the noisy big sounding piece can be pompous, sentimental and weak, even if the noise is tremendous? May not a flower have the strength of a tree?"*[197]

Later in this essay, it is clear that Ornstein had an aversion to predictable "clichés" and the common idea held by audiences, even in our time, that music by Debussy and Ravel is just pretty and beautiful.

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[194] Martens, *Leo Ornstein: The Man - His Ideas - His Work*, 28.
[195] During my interview with Severo Ornstein, I posed a question about Leo Ornstein's concert career, to which Severo responded: "the concert career ended when I came to consciousness." (Severo was born in 1930). In fact, Leo Ornstein's career was halted even before that, during the early 1920's. (See Chapter 5.10 – "Leo the Teacher")
[196] Martens, *Leo Ornstein: The Man - His Ideas - His Work*, 28.
[197] Ornstein, "How My Music Should Be Played And Sung: A Series of Papers Devoted to the Character and Idiom of My Latest Works, Describing Essential Requirements for Their Adequate Understanding and Providing Suggestions for Mastery of Their Technical Difficulties," 715.

The Debussy-esque black- and white-key tremolo effect from p.19, m.5 first appears in the *Presto con fuoco* (p.11/m.1–2) and *Più Presto* (p.14/m.3–4) sections in 16th-note triplet gestures. In the coda, this tremolo effect is transferred from the depths of the piano to the high 7th-octave tessitura, where it becomes rhythmically fragmented. The metric characteristics of this final section are in contrast to the motoric flow of fast note durations that come before. The motivic material of the *Più Presto* section clearly derives from the introduction, where groups of two clusters are followed by tremolos of increasing rhythmic durations. Every measure after p.20/ m.3 begins with a 16th-note or an 8th-note rest. The time signature changes imply three-measure metric repetition, 4/8 + 3/8+ 3/8, and the fragmentation process of breaking up tremolos into groups of two clusters creates an interesting rhythmic diminution effect. The space between each phrase is gradually diminishing. This is followed by a growling 32nd-note tremolo that swells to fortississimo. The density of these rhythmic values is expanding and contracting.

In Figure 4.14, the following fragmentation methods of expansion and contraction is used:

1. Introducing a swelling cluster tremolo that stops in the last beat with an accent or loud dynamic marking.

2. The phrase expands by breaking up into groups of two clusters that are played more sparsely, with rests between. This rhythmic cell is similar to the percussion articulation effect known as a "flam," where the left hand plays a very fast grace note that is followed by a right-hand accent.

Figure 4.13: "Flam"

3. The phrase contracts and restates swelling 32nd-note cluster tremolos that stop in the last beat with a *sforzando* dynamic.

The main difference between this section and the opening of *Wild Men's Dance* is that the clusters don't have a clear white-key and black-key arrangement and their pitch content is less dense and chromatic. The pitch density of the opening clusters is 7 notes, whereas in the coda it is 10.

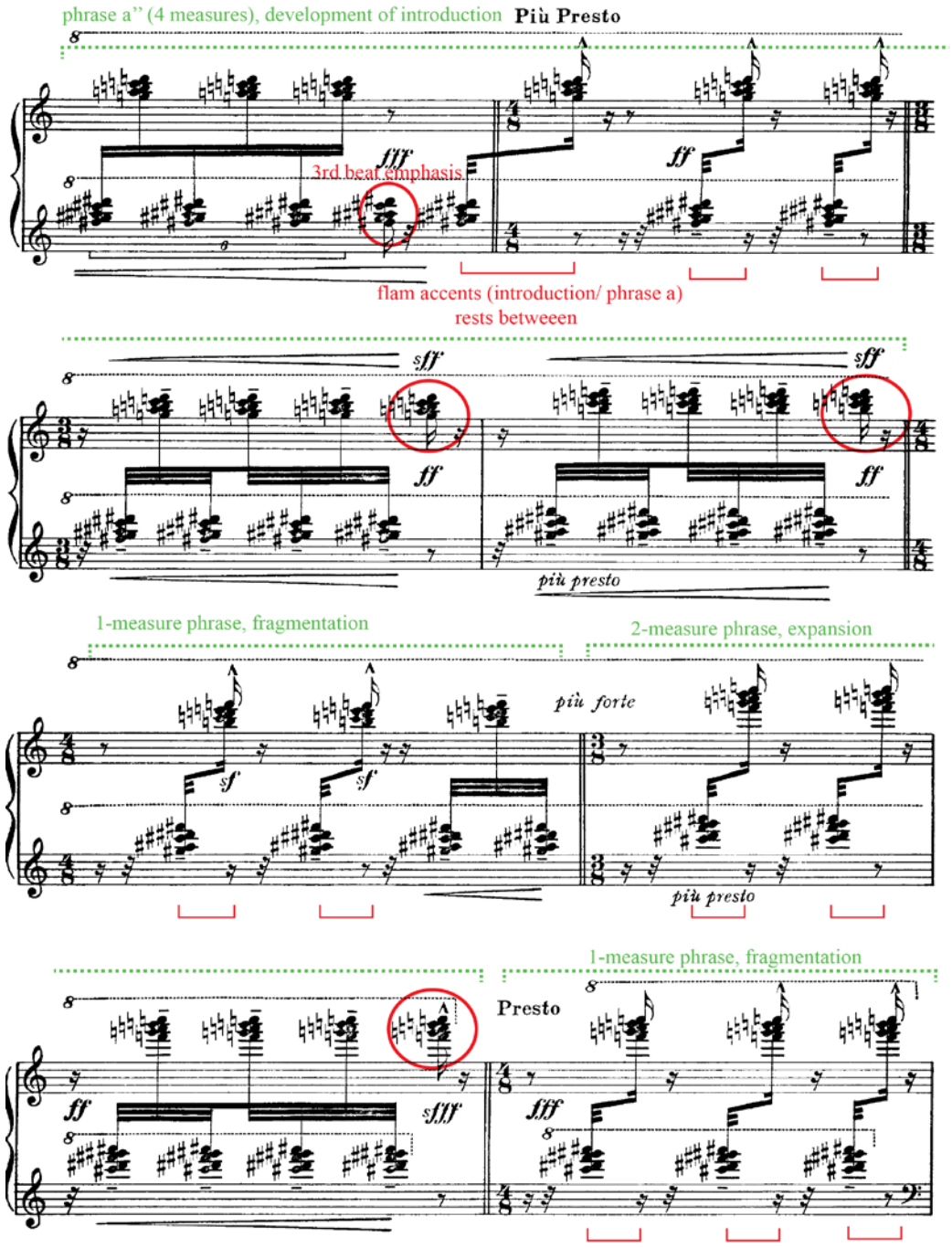

Figure 4.14: Wild Men's Dance – Coda, p.20, m.1–8

This process, wherein both the note durations and the phrase lengths expand and contract, is used in both the coda and the introduction (p.1/ m.3–7). Both the note durations and the phrase lengths expand and contract. Phrase *a''* first appears as a 4-measure phrase, then is fragmented to a single measure that repeats two groups of "flam" rhythmic cells and an incomplete tremolo. After that, it expands to 2-measures, and finally it is fragmented once again to a single phrase that includes 3 repetitions of the "flam" rhythmic cell.

The final section of the coda, marked *Prestissimo* (p.21/m.2) or "E" in Figure 4.1, combines material from Primary Theme *A* and section *D*. This last page features thick 10-voice and 11-voice chords that are played simultaneously by both hands. These harmonies in the exact same voicing derive from the clusters used in section *D* of the development (p.12/ m.5–6, *Furioso* – Figure 4.9), only this time they are played by both hands simultaneously. The clusters in the right and left hand contain adjacent white-key 2nd dyads, and an outer span of a minor 9th. These intervals alternate between major and minor and appear to be based on pianistic finger positions, rather than pitch collections. The right hand is playing 6-note clusters, while the left hand is playing 5-note clusters.

In order to execute this passage accurately in tempo, the pianist has to play two white notes with the thumb of each hand. This kind of fingering technique is also used in Liszt and Chopin, when the pianist is required to play a 5-voice 4th-inversion dominant chord. In terms of dynamics, the finale appears to have been written with fervent intensity and violence. The score is filled with explosive dynamic markings ranging from *ff* to *fffff* and *il più forte possible*, expression markings, such as *molto marcato* as well as multiple swells.

Fragmentation is also employed in the final four measures of the work. A single-bar phrase that features repeated 16th-note clusters swells into the dotted 8th-note gesture *d*. This dotted gesture is then diminished by approximately two times the original value and repeated two times. Finally, in p.21/ m.7, it is syncopated as an 8th note, which is 1.5 times its original duration. This contraction and expansion process occurs isomorphically in the introduction, the exposition of Secondary Theme *B* and in the coda.

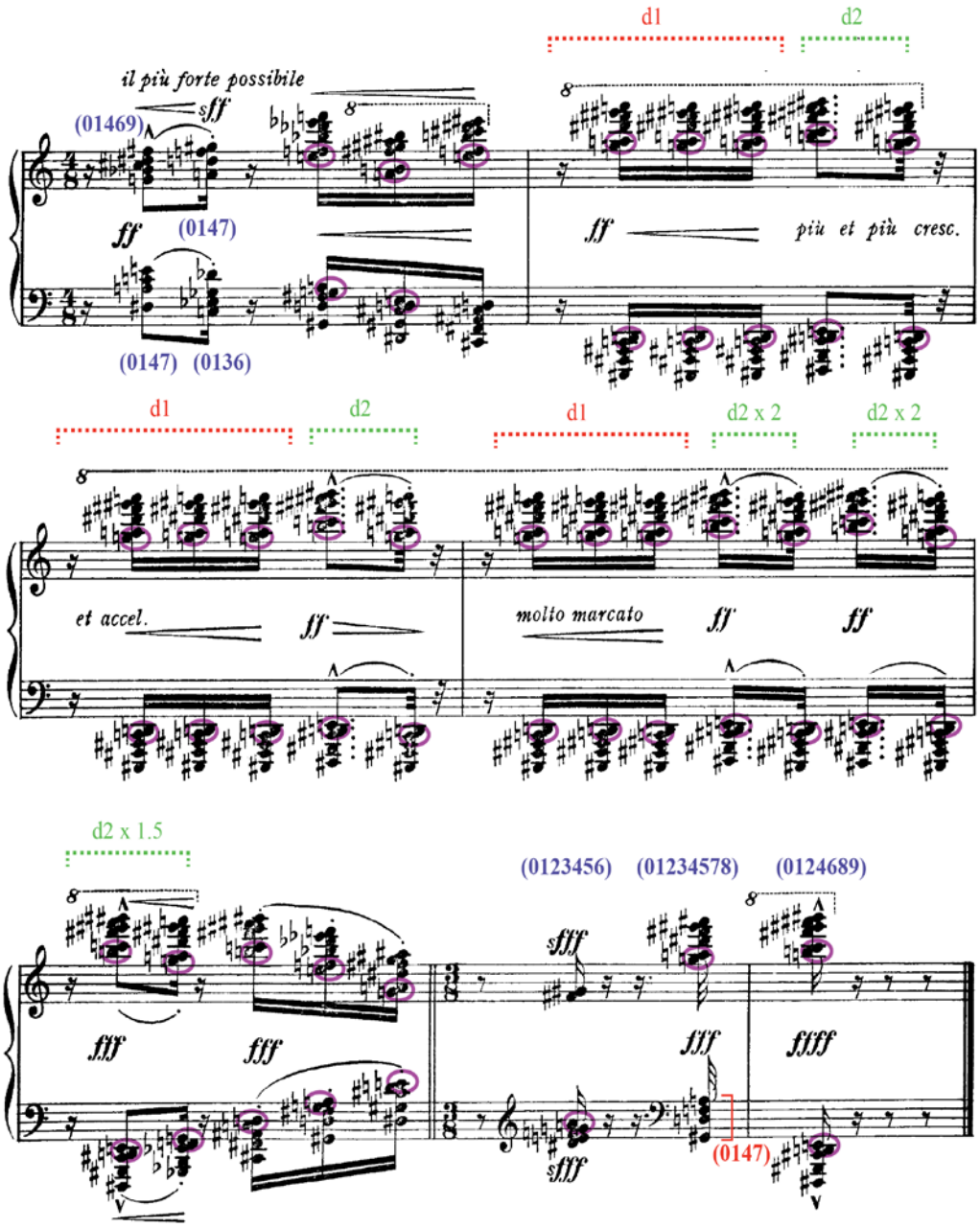

Figure 4.15: Wild Men's Dance – Coda/ "E," p.21/ m.3–9

As shown in Figure 4.15, the coda recycles the (0147) 4–18 tetrachord from the Primary Theme *A* (right hand, Figure 4.3). Both this tetrachord and the (01469) 5–32 pentachord played in p.21/ m.5 derive from the Hebraic (014) trichord cell, which is a subset of these collections. The (0136)

4–13 is also brought back from the recapitulation of Primary Theme *A* (left hand, Figure 4.10).

It is impossible to play the coda *prestissimo*, even for a pianist of the technical abilities of Marc-André Hamelin. The chromatic saturation of the pitch content in this section of the coda (p.21/m.1–9) is so extreme that harmony is dissolved into dense blocks of sound. On p.21/m.4, the hands are playing in the highest and lowest possible registers of the piano, slamming dense clusters.

All this forward motion created by a continuous stream of repeated chordal playing is interrupted in the final two measures. As both hands converge together in homophonic clusters, they finally overlap playing a very compact 7-note chromatic cluster (0123456) 7–1 in *sfff*, a quite rare and brutal dynamic marking *(Figure 4.15, m.6)*. The two final chords gradually spread out in register and increase in volume. The penultimate chord, marked *fff*, is a 10-note cluster with a density of a (01234578) 8–4 octachord set. The final chord, marked *ffff*, is an 11-note cluster with a density of a (0124689) 7–30 heptachord set where the hands are distributed at the extreme opposite ends of the keyboard. The penultimate chord in the left hand also brings back the (0147) 4–18 chord from the Exposition.

3.4: "Joy" from *Three Moods* S005 – Analysis

Along with *Wild Men's Dance*, *Three Moods* were written between 1913-1914 and were historically the first pieces for piano to include extensive use of the tone cluster. These two works, as well as Henry Cowell's piano work *The Tides of Manaunan*, became symbols of modernist music. In

1921, Aaron Copland, in homage to Leo Ornstein, wrote a collection of three pieces called *Three Moods*[198] and included a *fff* cluster.[199]

Ornstein performed his *Three Moods* from memory without notating them for decades. In 1948, the League of Composers sponsored a concert commemorating Paul Rosenfeld, and they wanted a pianist to perform *Three Moods*. Ornstein was forced to write them down, 25 years later. In his interview with Vivian Perlis, he mentioned the following: “Somebody was going to play it, and then, finally, I was up against it. I'd played it for years before I wrote it down. It was an exact reproduction. At that time my memory was absolutely perfect ... but I had to sit down and simply say, 'Now come on, you've got to put down the barlines and the spots on the paper where they belong.' Of course, some of the things I didn't do that way at all. That was not a constant method of writing.”[200]

“Joy” is the most unique piece of the set, as it features atonal flourishes that have to be performed at lightning speed. The bird-like quality of the opening section resembles Messiaen’s use of bird calls and interval-based atonality. It features an extensive use of minor-2nd dyads, (016) and (014) trichord melodic cells.[201]

The form, as shown below, is a modified rondo:

A (p.15/ m.1–p.17/ m.1), B (p.17/ m.2–4), A’ (p.17/ m.5–6), B (p.17/ m.7–p.18/ m.1), A’ (p.18/ m.2–3), C (p.18/ m.4–p.19/ m.3), A’’ (p.19/ m.4–p.21/ m.3), D (p.21/ m.4–p.24/ m.11), A (p.24/ m.12–p.26/ m.1), Coda (p.26/ m.2–end)

[198] Originally titled as *Trois Esquisses*, but later published as *Three Moods*.
(Dickinson, Peter. "Copland: Early, Late and More Biography." *The Musical Times* 131, no. 1773 (1990): 583. Accessed June 27, 2021. doi:10.2307/966180.)
[199] Howard Pollack, *Aaron Copland: The Life and Work of an Uncommon Man.*, 2nd ed. (Urbana and Chicago: University of Illinois Press, 2000), 44.
[200] Perlis, “The Futurist Music of Leo Ornstein,” 743.
[201] I choose to label it as Hebraic, however I am aware this is used in many other Eastern European modes as well. An example of this is the Greek ‘poimenikos” mode (identical to the Ukranian dominant).

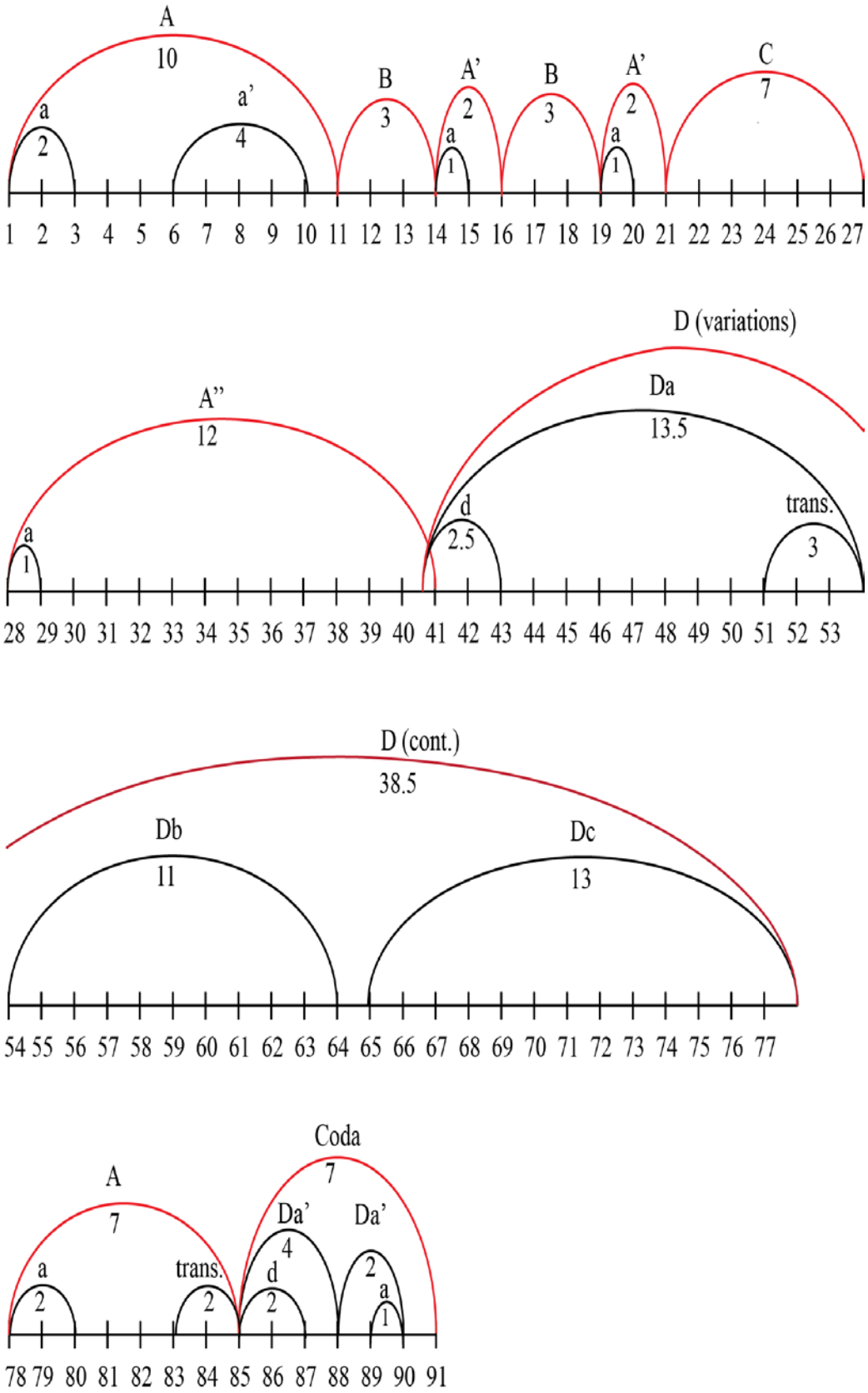

Figure 4.16: "Joy" – Arc diagram, rondo form

The most prominent harmonic feature in "Joy" is the use of the minor-2nd interval. In all three pieces of this cycle, Ornstein experiments with stacking 2nds, 3rds and 4ths in various dissonant combinations. What is particularly interesting is that the thematic use of these intervals gives off a sense of order within an otherwise chaotic harmonic structure. Many of these odd intervallic arrangements seem to fit perfectly in the fingers of the pianist and stem from improvisation and piano performance. Ornstein was an avid improviser, a skill that not only enabled, but also reinforced his championing of the intuitive approach to composition.[202] In my interview with Severo, after I asked him whether Ornstein wrote away from the piano, he answered that most of the time he sat at the piano while composing.[203] From my own experience, performing this work live on multiple occasions, I noticed how, after figuring out the right fingers and distribution between the hands, the difficulty was considerably reduced.

"Joy" has a complete lack of dynamic and expression markings. One of the reasons why Ornstein's modernist approach is so fresh is the freedom he allows the performer. Was this an artistic choice or laziness? A little bit of both seems to be the case. In an interview with Vivian Perlis, Ornstein mentioned how he was thrilled at the idea that one person might play a piece of his in some fashion that had never occurred to him.[204] He also trusted that the experienced performer has a correct sense of relative speed and context, regardless of metronome markings. Sarah Cahill, a specialist on early American modernism who had met Ornstein towards the end of his life and recorded many of his works, told me in our interview that she believed this was an artistic choice. On the other hand, his son Severo was very confident in our interview that it was laziness[205] and a lack of interest in making his music presentable for editors.

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[202] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 111.
[203] See Chapter 5.12 – "Revival" (Interview with Severo Ornstein)
[204] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 14.
[205] After I asked Severo about whether his father's lack of dynamic markings was a n artistic choice or laziness he replied: "Being lazy - and his excuse always was that anybody who reads this kind of music will understand and if they don't, they shouldn't be going near it." [See Chapter 5.3- "Leo the Composer" (Interview with Severo Ornstein)]

One can sense Severo's frustration as a transcriber of his father's work when he admits the following on his site: "Overall, Ornstein was not punctilious about notation. Writing hurriedly, he was concerned principally with 'getting the spots in the right place'; i.e., specifying the right notes. He sometimes failed to indicate markings, such as tempos or other performance cues, and he was little interested in 'proper' spelling. He had no patience with such details, and consequently some of his music is spelled in a highly unorthodox fashion. Perhaps scholars will someday make corrections, but the scores contained here adhere to his spelling."[206] By "spelling" he is referring to the fact that Ornstein usually restated accidentals redundantly within the same measure. Some exceptions to this rule are *Tarantelle S155*[207] and works that include key signatures.

In the first measure, an ascending figure mainly consisting of 6 stacked 3^{rds}, minor and major, outlines an E$^{9\#11}$/A# harmony. Ornstein will use a method of fragmentation later to pick apart the notes [A#4, E5, G#5, B5] of the left hand and create (016) chords and melodic cells. (016) is included as a subset of in this E$^{9\#11}$ chord, if one omits the G#: [A#4, E5, B5]. More about this process will be discussed in this chapter. This is followed by a rapid oscillation of two major- and minor-2nd dyad groups that split between the hands. The dyads form a [Bb6, C7, D#7, E7] tetrachord, or a (0146) 4-z15 set, which shares two common tones with the previous harmony (E and Bb/A#). A syncopated descending flourish follows, forming a bitonal set which combines the black-key pentatonic scale [F#7, G#7, D#7, C#7, A#6] and a white-key diatonic trichord [A6, G6, F6]. The first measure ends with a short 8th-note breath. In the second measure, the melodic contour is repeated unchanged, but now the pitch content is denser and more chromatic. Measure 2/beat 1 can be rearranged to form a [A, Bb, C#, D, D#, E, F, G] collection that is stacked in 6 consequent 3^{rds}; in prime form, this produces a (01234689) 8-z15 octachord set. This layering of consequent minor 2^{nds} and major 3^{rds} is another harmonic feature that is present throughout *"Joy."*

[206] Ornstein, "Scores: About the Notation."
[207] *Tarantelle* S155 was originally written using accidentals throughout. As the piece is largely in the key of C# minor, it was converted - with his concurrence - to that key.

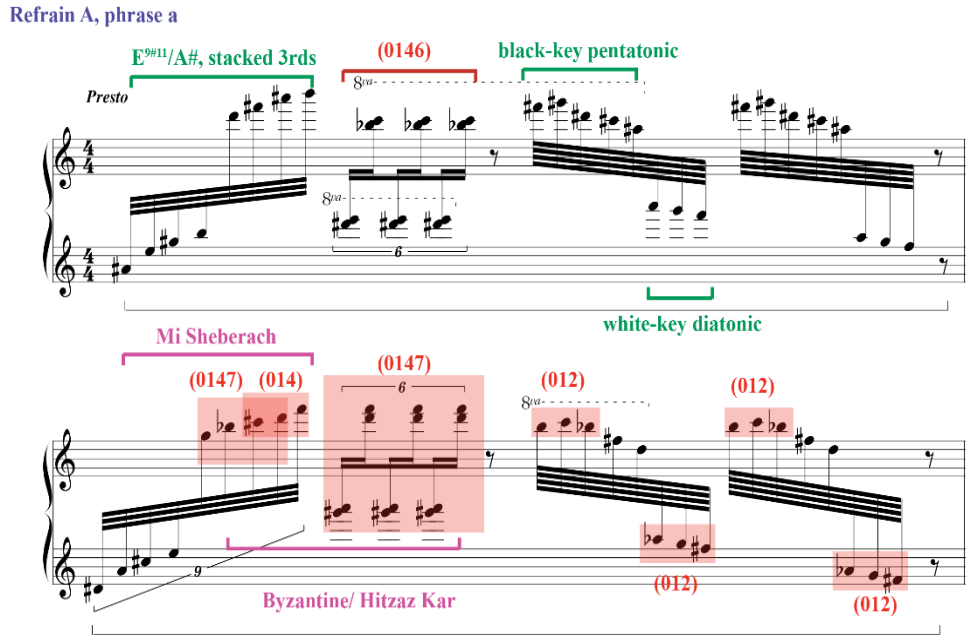

Figure 4.17: "Joy" – refrain A and motif a, opening

In m.2, the first ascending arpeggio outlines a series of overlapping Hebraic (014) trichords and (0147) 4–18 tetrachords. Depending on the segmentation, Ornstein evokes two Middle Eastern scales:

1) The segment [A4, C#5, E5, G5, Bb5, C#6, D6, F6] is alluding to a Mi Sheberach or Ukrainian Dominant mode with G as root, and has the following whole-step sequence: {1, ½, 1½, ½, 1, ½}.

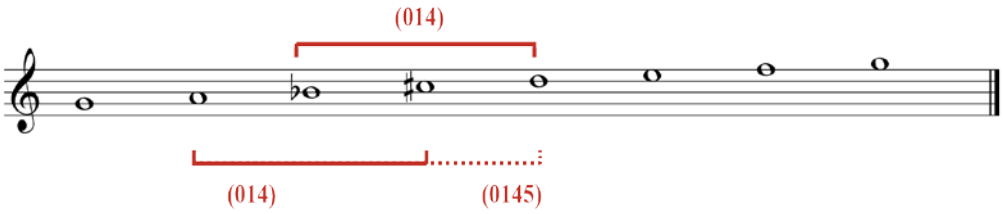

Figure 4.18: Mi Sheberach mode

2) The segment [Bb5, C#6, D6, F6, G#6, A6] is alluding to the Byzantine or Hitzaz Kar with A as root: mode {½, 1½, ½, 1, ½, 1½}.

Figure 4.19: Byzantine or Hitzaz Kar mode

Both of these modes are built by Hebraic (014) trichords and (0145) Hitzaz tetrachords.[208] These particular melodic cells have a characteristic sound that is present in Middle Eastern, Jewish, Eastern European and Greek folk music.

Motif *a* ends with a descending flourish that combines (012) sets arranged in the top and bottom, as shown in Figure 4.17. The chromatic set from measure 2/ beat 4, can be reordered as such: [D, F#, G, Ab, Bb, B, C], which is a (0124568) 7–13 heptachord in prime form.

In the arc diagram of Figure 4.16, I label the principal motif *a* in measures 1–2. Every time the refrain *A* returns, this motif will appear. Perhaps the most salient characteristic of the refrains is a strict monophonic texture and an irregular period structure scheme. Comical silences in motif *a* are always superseded by an uninterrupted flow of notes. Despite the overwhelming complexity and saturation of harmony, Ornstein employs simple call-and-response period structure, in order to balance out the other-worldly nature of *"Joy."*

Phrase *a* functions as a 2-bar question with a comical rest at the end of each 1-bar phrase. The response to this question is a 3-bar phrase: an outpouring of continuous 32nd-note arpeggios that ascend and descend (p.15/ m.3–4), followed by a fragmentation of the beginning portion of *a* (p.16/ m.1).

[208] This matter was discussed in detail on Chapter 1.5

"Joy" seems like a fitting name for this piece. The sarcastic and whimsical nature of this introduction gives away some information about the dynamics and expression. Despite having absolutely no dynamic markings, it is obvious that this work should begin very *leggiero* and light on the touch in order to convey humor. This passage consists of mainly 3 sets: (014) 3–3, (0145) 4–7, (0123) 4–1, (01368) 5–4.

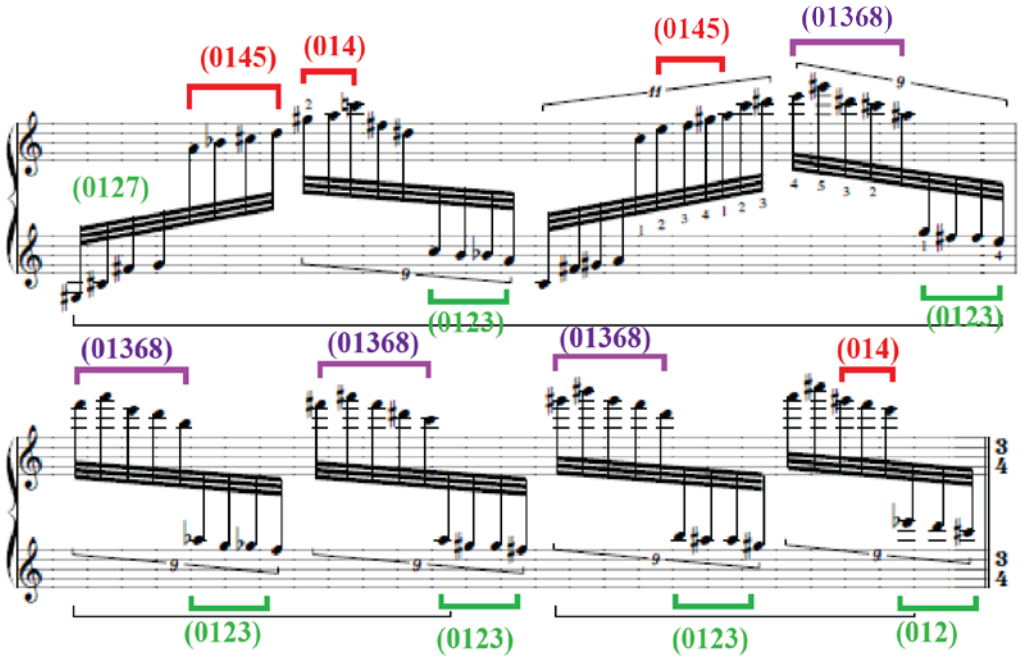

Figure 4.20: "Joy" – refrain A, p.15/ m.3–4 (color coded sets)

The first four notes in the ascending arpeggio of Figure 4.20 are a quartal trichord followed by a half step [G#3, C#4, F#4, G4]. This tetrachord is a (0127) 4–6 in prime form. The right hand outlines a [A4, Bb4, C#5, D5] tetrachord cell, which is (0145) 4–5 in prime form, and a [G#5, A5, C6] trichord cell, which is (014) in prime form. The arpeggio descends and ends with a chromatic cell, like in measures 1–2 (Figure 4.17), only this time it is a tetrachord set (0123) 4–1.

Ornstein's signature Hebraic trichord (014) 3–3 is also present in the next arpeggio, which starts its ascent on beat 3 and outlines [E5, F5, G#5).

The last beat features a new pitch collection [E6, G#6, D#6, C#6, A#5], which is a descending (01368) 5–29 pentachord in prime form and ends with a chromatic tetrachord [G5, F#5, F5, E5]. The nonuplet 32nd-note descending arpeggio has a little melodic ascent in the first two notes [E6, G#6]; this model of going up a major 3rd and then descending will eventually become thematic.

In m. 4, the same pattern of (01368) 5–29 in the right-hand and (0123) 4–1 in the left-hand is transposed by a half step, another half step, a whole step, and finally a major 3rd/ diminished 4th. The last iteration of this pattern breaks the logic and changes in the first half by using yet another (014) 3–3 melodic cell: [G#6, F6, E6].

I would like to note that this score has several typographical errors that I indicated to Severo, and he was willing to make some edits in the site for the future, even if it is a very cumbersome process. This transcription was made in 1980 with *Mockingbird*, Severo's own notation program, which was originally created to help his father's memory problems as he was getting older.[209] One of these mistakes can be seen in the last pattern that is notated as a nonuplet, even though it is just a 32nd note. These issues will be discussed at the end of the chapter.

In Figure 4.21, a change of meter to 3/4 is followed by a fragmentation of material. The (0127) set is repeated on p.16/ m.1, where the first three notes [Eb4, G#4, C#5] also form an ascending quartal trichord that is followed by a half step. This is followed by very fast dodecuplets consisting of groups of (012), (023) sets and stacked 3rds. The first three notes of beat two are [F#5, G#5, G5] and form a chromatic (012) trichord, which is superseded by 4 ascending 3rds every time. This is an idea introduced in the very beginning, where motif *a* contains a series of 6 stacked 3rds. The last group of (012) in the second half of beat 4 (p.16/m.1) is notated incorrectly as a part of the upper system with the ledger lines facing the wrong way. I believe that the correct notes should be

[209] Ornstein and Maxwell, *Mockingbird -- A Musician's Amanuensis, Lecture by Severo Ornstein and John Maxwell*.

[A#6, C7, B6, D7, F7, A7]. My reasoning for this choice of notes derives from the intervallic scheme that is established in beats 2 and 3.

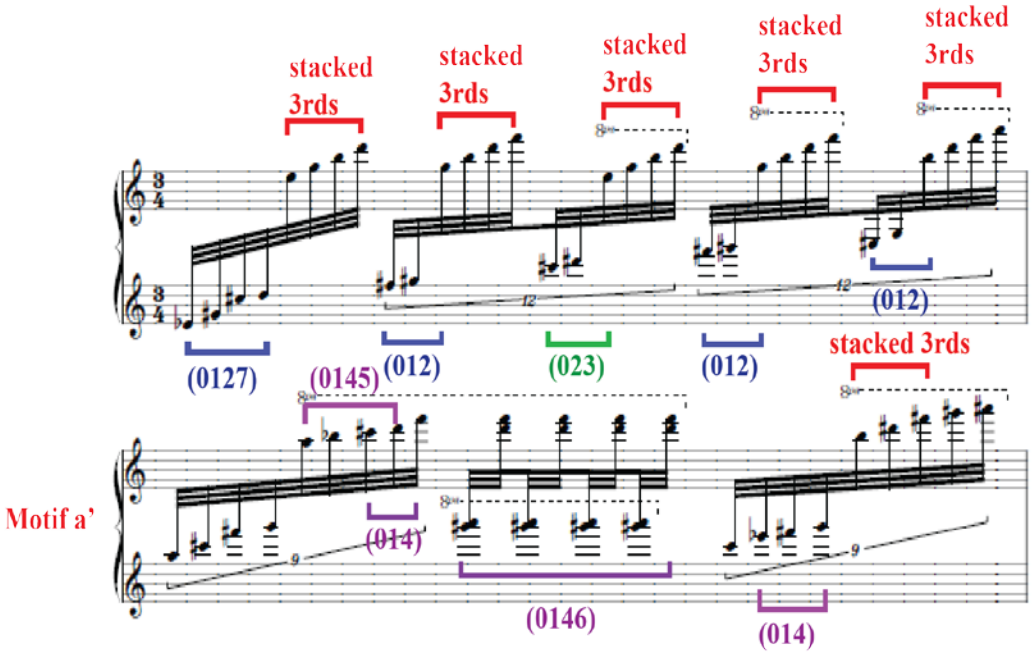

Figure 4.21: "Joy" – refrain A, p.16/ m.1–2 (color coded sets)

Motif *a'* on Figure 4.21 (or m. 6 in the arc diagram from Figure 4.16) is a transformation of motif *a*. The pitch material now includes [A6, Bb6, C#6, D7], which is a (0145) Hitzaz tetrachord. The last three notes of the first beat also form another Hebraic (014) trichord. In the second beat, the 2nd dyads are slightly altered with a minor-3rd dyad played by the right hand. If both dyads [G#, A] and [D, F] are combined, they form a (0146) 4-z15 tetrachord, which was present in the opening and includes the Hebraic subset (014). Finally in the 3rd beat, the ascending arpeggio forms a [C6, Eb7, F#7, G7] tetrachord, which is (0147) 4–18 in prime form, and is followed by 2 stacked 3rds. Once more, the (014) trichord is included in the ascending left-hand portion of the gesture: [Eb6, F#6, G6].

Motif *a'*, as shown in the arc diagram in Figure 4.16, lasts 4 measures. The one-bar phrase is repeated 2 times and, after that, Ornstein shrinks the phrase structure by omitting the second beat from p.16/m.2 (the oscillating

dyads) and just repeating the first and third beat gestures 3 times. This 2-beat pattern repeats 3 times over 2 bars of 3/4 and creates a hemiola. The same process of diminution was also used in the Coda of *Wild Men's Dance* analyzed earlier. To modern ears it sounds almost like an electronic "glitch" effect, where an electronic sample is broken up into smaller grains and rearranged.

The above excerpt is also a fine example of how Ornstein uses an intervallic-based logic to come up with atonal pitch collections. In this case, he applies this scheme to transform motivic material in a very effective way. All the pitches in motif *a'* are different from motif *a*, yet even an untrained musician can easily tell that this is a repeating gesture. Another reason for this type of aural cohesion is the similarity in melodic contour and rhythmic structure.

This process appears to be meticulously composed, but this is probably not the case. One can very easily form these groups of transposing atonal figures just by plotting them in the piano. It could have been either an outcome of a visual pianistic process, or an aural process of hearing different combinations of atonal sets (most likely the latter, considering Ornstein's tremendous mental composing ability). After all, Ornstein did not like the idea of a mathematical compositional process that places scientific theory on a higher pedestal than sound. The following quote reflects his reflexive attitude towards analytical systems: "In the end, music is ultimately an aural art, pure and simple. What it looks like on paper may be interesting enough, but what the listener hears is ultimately what stays with him, that he is concerned with. But anyway, what relationship there is between what one hears and what one sees on paper is beyond -- I've just never attempted to try to analyze, and I don't know that much would be gained by it."[210]

In an interview with Vivian Perlis, Ornstein criticized Schoenberg's serialism for entering into the realm of "mathematics,"[211] despite his deep admiration of his earlier expressive style.[212] After all, he championed Schoenberg's piano music by premiering it in America and taking the role of

[210] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 6.
[211] Ibid, 9.
[212] "Schoenberg was an extremely gifted man" (Ibid.)

"proselytizer" for fellow modernists after meeting Calvocoressi in Paris.[213] He maintained, however, that serialism was a regressive theory. Ornstein believed in composing a work by first hearing the music with an unadulterated inner ear and then appreciating it and discovering the most "incredible mathematical relationships." Instead, if a composer tried to start from the mathematical end, they could never "see the intricacies of rhythms and voices that you hear against each other and so on, with the greatest ease."[214]

On p.17/m.1 Ornstein writes a descending double chromatic double glissando with both hands starting from C7/Bb6 and reaching all the way down to D3/Db3.The right hand plays all the white keys with the thumb, while the left hand plays all the black keys with a reverse open palm. This effect is very rare in piano literature prior to 1913. An example of a double glissando can be found in m. 87 of Debussy's *"Feux d' Artifice"*, when in the climax of the piece, the performer has to imitate the sound of exploding fireworks.

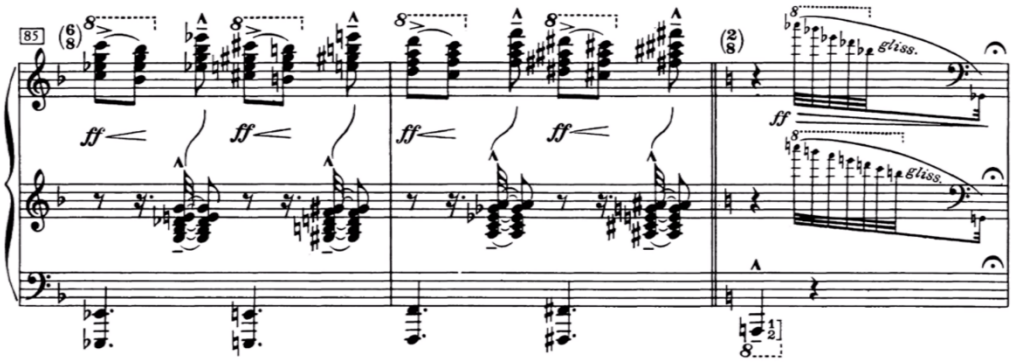

Figure 4.22: Debussy – "Feux d'artifice," m. 85–87

In a similar fashion, the black- and white-key glissando in "Joy" is an indication that the music intensifies and leads into the next section *fortissimo*. An effective way to add some nuance is to do a *subito piano* on p.16/m. 4 and then have a dramatic *crescendo* that is initially interrupted by the

[213] Oja, *Making Music Modern: New York in the 1920s*, 18.
[214] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 9.

"cliff hanger" rest on p.17/m.1 before ultimately unleashing into the bombastic double glissando.

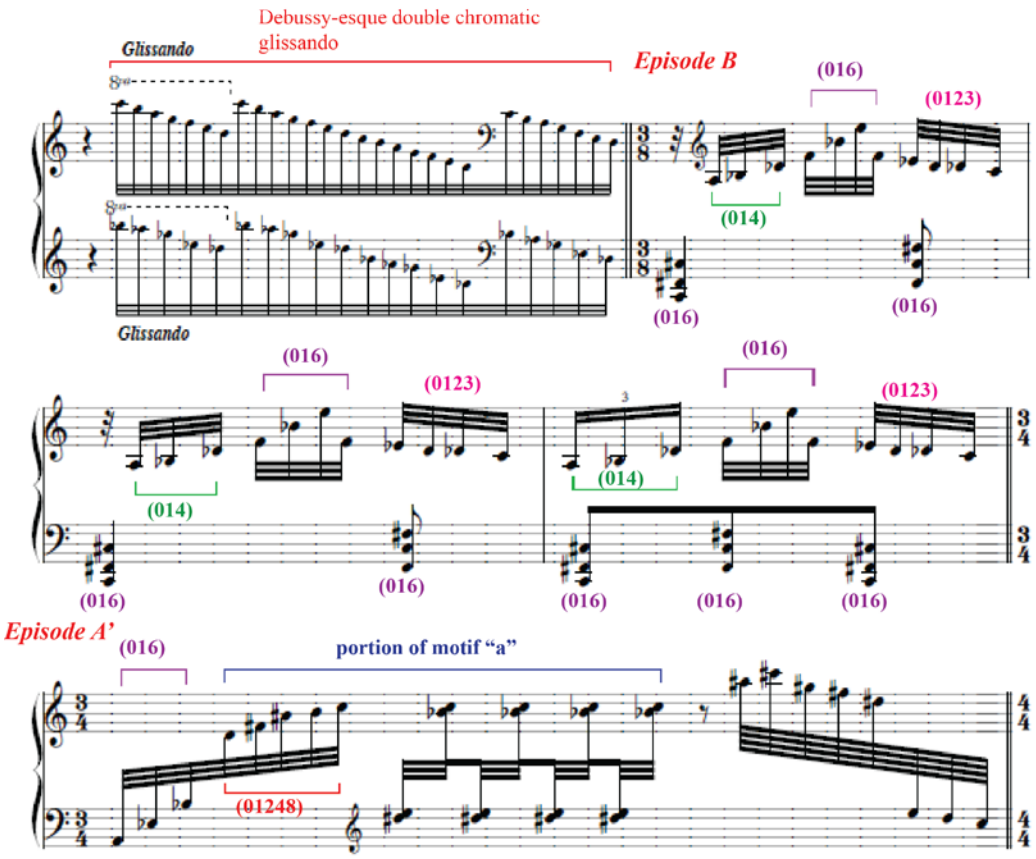

Figure 4.23: "Joy" – episode B and refrain A', p.17/ m.1–5

The next measure (p.17/m.2) marks the introduction of the first episode, labeled as "*B*" in Figure 4.16. This new section in 3/8 is polyphonic. Up until this point, the first two pages of music have been completely monophonic. At the same time, meter is gradually shrinking; first 4/4, then 3/4, and now 3/8.

The left hand is alternating between two trichords: [C2, F#2, C#2] and [F2, C3, F#3]. Both of these chords can be described as (016) sets and share identical harmonic qualities: a minor-9th total span and a combination of perfect-5th and augmented-4th intervals. The right hand is playing fast toccata-like figurations. These gestures always start with [A3, Bb3, Db4], or a (014) melodic cell, which is followed by [F4, Bb4, E5], another (016) set in prime form. They

finally ending with a descending chromatic tetrachord [Eb4, D4, Db4, C4], or a (0123) set.

The *B* episode is immediately interrupted by a return of the *a* motif in the *A'* refrain, which only lasts two bars (p.17/m. 5–6). The first beat has 32^{nd}-notes, instead of nonuplet 32^{nd} notes, and the first three notes have transformed: [A3, Eb4, Bb4]. This trichord is very similar to the opening tetrachord [A#, E, G#, B] and is just transposed a semitone lower. If it were transposed in the same way, it would be (A, Eb, G, Bb), but Ornstein chooses to omit the note G. For one more time, Ornstein uses (016) trichords, now this time as a harmony instead of melodic runs. The right-hand portion of beat one on p.17/m.5 includes the notes [D4, F#4, A#4, B4, C5], which is a (01248) pentachord in prime form. Ornstein develops the opening tetrachord [D, F#, A#, B] and saturates it chromatically by adding an extra semitone at the end. He further develops this pentachord when the *a'* motif returns. The last beat follows the same logic as the opening bar, but is also different. The right hand is outlining a black-key diatonic pentachord set, while the left hand is playing 3 white notes [E4, D4, C4]. This is another example of how Ornstein creates interval-based atonality by using (01) semitones as the basis for trichords, such as (014) and (016), and chromatic tetrachords (0123) as both melodic (right hand) and harmonic (left hand) material.

The *B* Theme can be brought out more *forte* or even *fortissimo* and *marcato* in the left hand, as it introduces polyphony for the first time and a very rigid sense of groove.

The first return of the *B* episode maintains the same interval-based logic and time signature of 3/8. The passage consists of semitone-based sets: (014), (016), (0123). Now, both hands have moved a perfect 4^{th} higher. The left hand interchanges between two (016) trichords that have an outer span of interval class 2 minor-9^{th} dyads: [F2, C3, F#3] and then [C3, G#3, C#4]. The right hand recycles the same melodic cells as on p.17/ m.2–3: [D4, Eb4, Gb4] or (014) in prime form, [Bb4, Eb5, A5] or (016) in prime form and [Ab4, G4, Gb4, F4] or (0123) prime form.

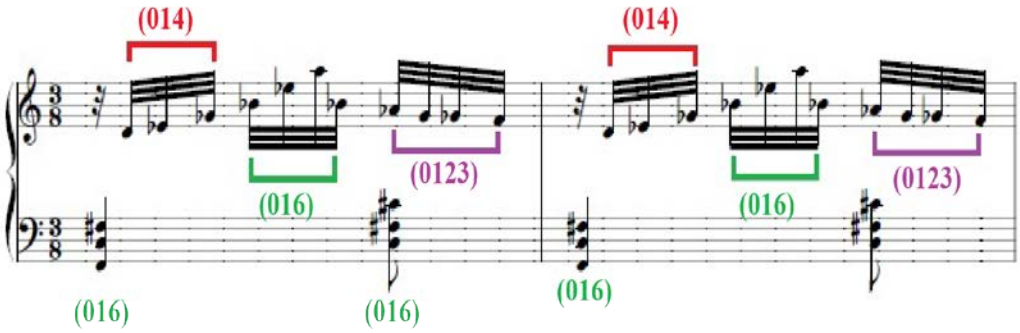

Figure 4.24: "Joy" – return of episode B, p.17/ m.7–8

The second *B* episode only lasts 3 bars and is abruptly interrupted by the return of the *a* motif in refrain *A'*. In the first beat of p.18/ m.2–3, Ornstein transforms the opening ascending arpeggio, which was a $E7^{maj9\#11}$ harmony in stacked 3^{rds}, into a quintal trichord lower portion [D2, A2, E3] and a (01248) upper portion. Although the lower portion is different from the opening, the right-hand notes correspond to the exact same intervals and spacing with an added semitone at the end of the first beat. The original version in refrain *A* had a (0148) tetrachord, whereas in refrain *A'*, it is [G#, C, E, F, F#] or a (01248) pentachord. This set will be further developed in episode *C*; it is essentially a whole-tone WT0 tetrachord [G#, C, E, F#] with an added chromatic tone [F]. The second beat inverts the order of dyads from the original version, placing minor 2^{nds} [A5, Bb5] and then major 2^{nds} [E5, F#5]. They both combine to form a (0146) tetrachord. The third beat also inverts the order of black and white keys. Before, Ornstein had a black-key pentatonic collection, which reappears as a white-key pentatonic collection [E5, G5, D5, C5, A4] and a diatonic white-key trichord melodic cell, which is now played in only black-keys [Bb4, Ab4, Gb4]. P.18/m.3 features some octatonic qualities in the first 5 notes and (01458) pentachords, which also include Ornstein's frequently used (014) trichord as a subset.

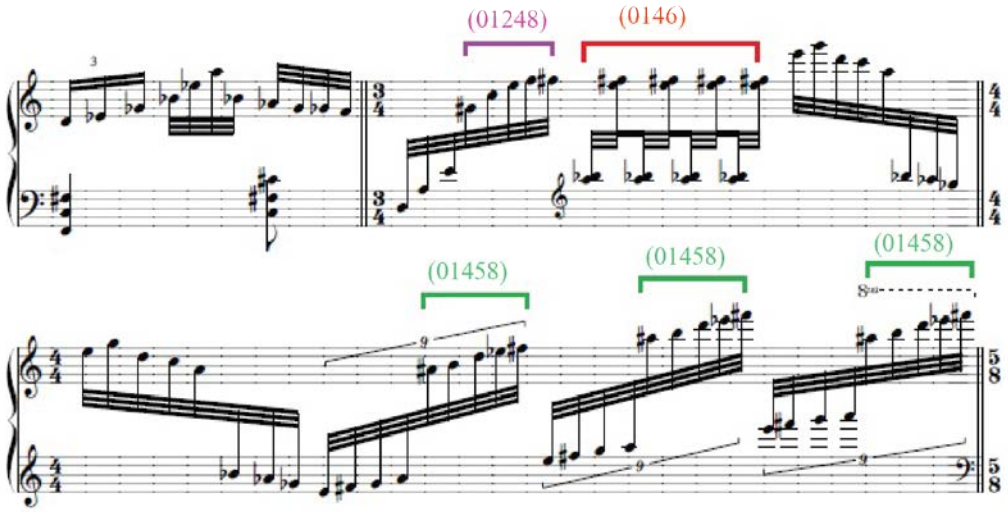

Figure 4.25: "Joy" – Refrain A', p.18/ m.2–3

Episode *C* introduces some new interesting rhythmic qualities. It is in a mixed meter of 5/8 + 3/8 with an upbeat feel that is very similar to episode *B*. Even though the hypermeter is 8/8 for 2-measure phrases, the usage of complicated tuplets in combination with an irregular left-hand accompaniment produces an interesting rhythmic effect. The performer is required to perform a quattordecuplet with the right hand over a 5/8 and then a very rapid 32nd-note decuplet over the first 2 8th-notes of the 3/8 bar. The polyrhythmic ratio of p.18/m.4 is difficult to practice when slowing down, because one has to feel a 14/10 polyrhythm.

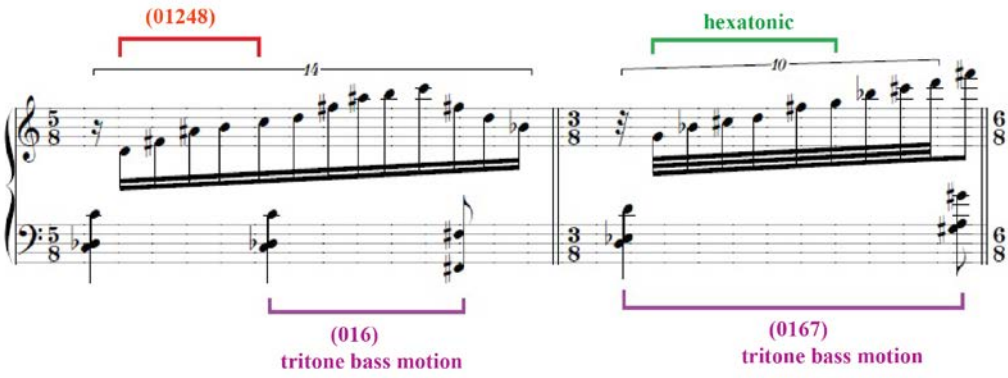

Figure 4.26: "Joy" – Episode C, p.18/ m.5–6

This section further develops the (01248) pentachord from episode *A'*, which derives from the (0148) tetrachord in the opening *a* motif. The arpeggiated pentachord ascends and descends in two octaves. The next melodic gesture on p.18/m. 5 contains the following pentatonic collection:

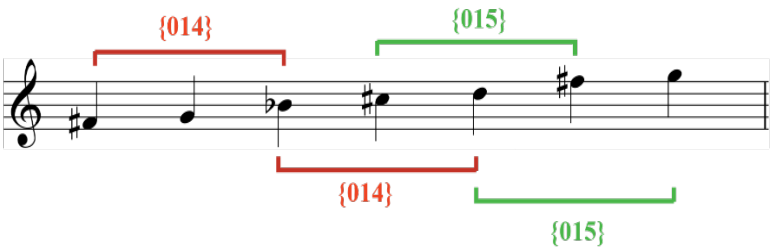

Figure 4.27: "Joy" – Pentatonic collection from episode C

This collection combines two trichords that have been used extensively throughout the work: (014) 3–3 and (015) 3–4. This scale is built by using minor 2^{nds}, and 3^{rds}, minor and major. It exhibits some interesting combinatorial properties and symmetries: (014) and (015) trichords are present in 2 inversions that can be overlapped to form the pentatonic scale.

The left hand is outlining some very dissonant three-voice chords [C3, Db3, C4], which are (01) sets with an outer octave doubling. The bass notes outline tritones [C3, F#2] and [D3–G#3] that form an incomplete whole-tone collection WT0 (0268) 4–25 (*Figure 4.26)*. All the notes of the bass on p.18/ m.5 outline a (016) 3–5 trichord. In the next measure, the dissonant three-voice chords form a (0167) 4–9, which is symmetrical because it includes two (01) subsets at each side.

In Episode *C*, new pitch material is introduced in a different metric context of 6/8. P.18/m.8 and P.19/m. 1, 2 include ascending 32nd notes and descending 32nd-note nonuplet arpeggios that can be broken down to 2 sets: (01469) and (01468). To many listeners, this might seem to be inspired by jazz. If we analyze the melodic line as a single sonority, it can be also interpreted with tertian harmony as D$^{\#7\#9}$/G and A$^{\#7\#5(\#9)}$/D.

After playing this passage on the piano it becomes clear that it does not derive from an interval-based logic, but, rather, from a pianistic visual

idea. The melodic juxtaposition of black and white keys from refrain *A* is utilized once more. This time, the right hand plays pentachords that always have white keys for the thumb and 4 black notes for fingers 2-3-4-5. This creates some interesting altered tertiary sonorities as a result of using 4 black keys [Bb4, C#5, Eb5, F#5] and [C#8, Bb7, Ab7, F#7]. The accompaniment arpeggios in the right hand form $D^{7\#9}/G$ and $A+^{maj7\#11}$ chords.

The left hand is still outlining three-voice chords with a pitch content of (01). The outer octave doublings of these semitone-based chords and the slower rhythmic structure of a duple compound meter in the left hand create a sense of a principal melodic element. This is immediately noticed by the listener as the first glimpse of a melodic line in the left-hand thumb (Figure 4.28, m.2): C4-D4-A4-B4-A4-B4-C5-D5. These particular voicings are extremely rare in piano literature before the 1910s, because they present jarring dissonances. Ornstein is able to use them effectively, as they bring out humorous and sarcastic qualities that haven't been explored before.

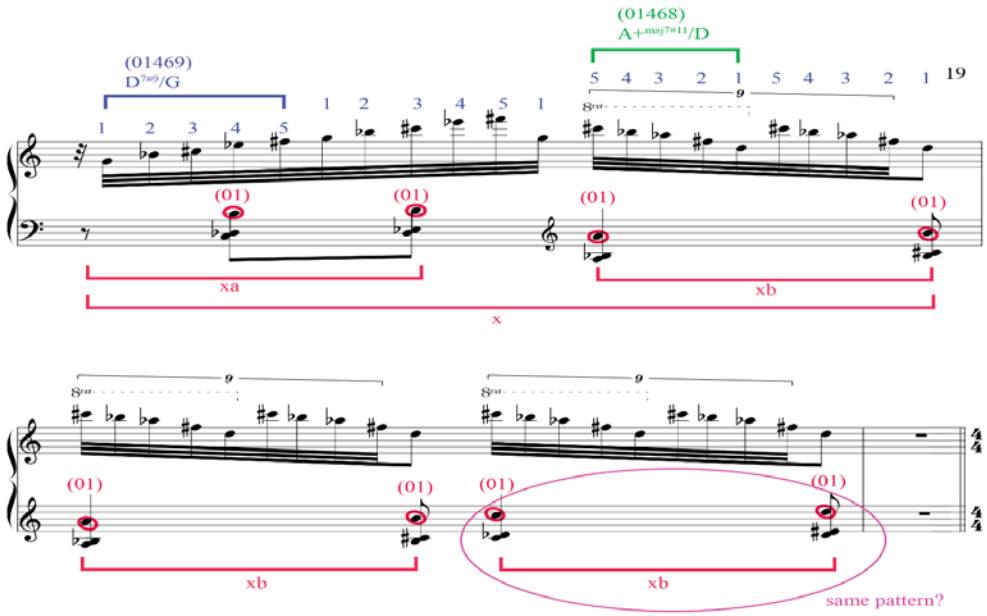

Figure 4.28: "Joy" – Episode C, p. 19/ m.1–3 (possible mistake by Leo Ornstein)

As shown in Figure 4.28, Ornstein uses a fragmentation process similar to the first refrain (p.16/m.2–5). Phrase *x* includes virtuosic ascending and descending arpeggios in the right hand and which is repeated two times, whereupon the phrase is foreshortened. He repeats the latter half "*xb*" and loops

it 2 times. The phrasal diminution drives the tension of this passage, and the lack of dynamic markings gives the performer freedom to interpret this passage in multiple ways. One might want to start softly on p.18/m.8 and *crescendo* all the way until the end of p.19/m.2. This is effective because the silence on p.19/m.3, comes as a dramatic surprise.

When performing this section, one might wish instead to take a less predictable route and do the opposite: begin *marcato* and *decrescendo* all the way to the end. This interpretation can convey the sense of a question that is interrupted by a whole-measure rest and answered *fortissimo* on p.19/m. 4. Finally, the fragmentation process of this phrase can be emphasized by disconnecting *xa* and *xb*. By slurring each group of two chords together and separating them, the pianist can further amplify the disjunct sense of melody in the left hand (*Figure 4.28).* I believe that the notes of the left hand on p.19/m.3 beat 2 are a mistake. It is clear that these two chords should be identical to the two first chords of the bar (*xb* motif). My suspicion arises from the fact that Ornstein uses this same fragmentation process many times in this work, and, when he does, the final bar contains two repetitions. This is not the only mistake in the score.

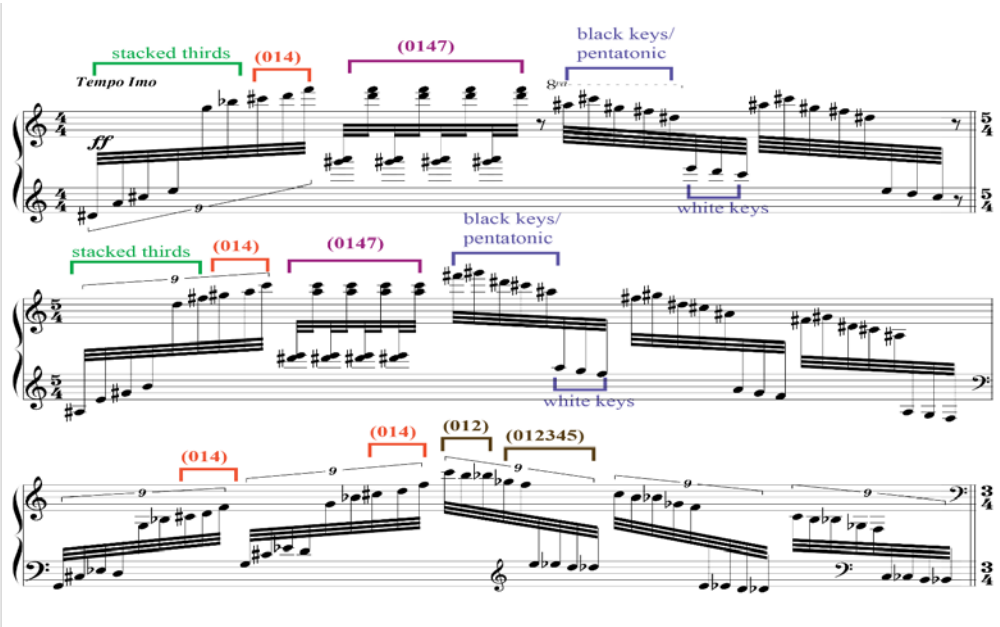

Figure 4.29: "Joy" – Refrain A'', p. 19/ m.4–6

The return of motif *a* in refrain *A''* transforms the opening thematic material with different pitch content that follows the same interval-based logic used throughout this work. Melodic cells follow the exact same interval hierarchy and sequence: 1) stacking 3^{rds}, 2) oscillating dyads that form (0147) sets, 3) juxtaposition of black-key pentatonic and 3 white keys. These three elements are present in all refrains. The basic difference here is the starting pitch of D#, which is different from the opening, and the inclusion of (014) melodic cells at the end of phrases. Ornstein uses the Hebraic trichord to slightly alter the harmonic quality of these gestures in a cohesive way. On p.19/ m.5, the time signature changes to 5/4 and the black- and white-key pentatonic melodic idea is repeated and disposed in octaves as it descends. The next measure includes more (014) melodic cells within the ascending arpeggios and a descending chromatic melody. This melody consists of two chromatic melodic cells (012) 3–1 and (012345) 6–1 that are separated by a major 3rd [Bb5-Gb5]. The pattern repeats 3 times and descends all the way to the second octave register of the piano. The excerpt on p.19/m.6 uses continuous nonuplet figures, which derive from the first refrain ending (p.16/m.4–5).

The interpretation of the aforementioned continuous descending chromatic sets can be very effective if the performer plays them *legato* and very evenly with a half pedal, so as not to obscure the melodic contour.

P. 20 includes a plethora of 16th-note and 32nd-note tuplets: 7, 9 and 10. The juxtaposition between black-note pentatonic sets and white-note diatonic sets is also present throughout. There is as well a repetition of the Hebraic tetrachord (0145) 4–7 and its trichord subset (014) 3–3. As shown below, the melodic cell is inserted at the end of a phrase or sometimes in the beginning. Another element from previous refrains that is recurring in this page is the chromaticism at the end of phrases, as many descending nonuplet 32nd-note arpeggios will close with a (0123) chromatic tetrachord set.

The time signature of 3/4 is treated as a hemiola. The passage can be segmented into groups of two quarter notes where the music rises and then falls. These groups of two are repeated three times forming an interesting rhythmic disposition like a hemiola.

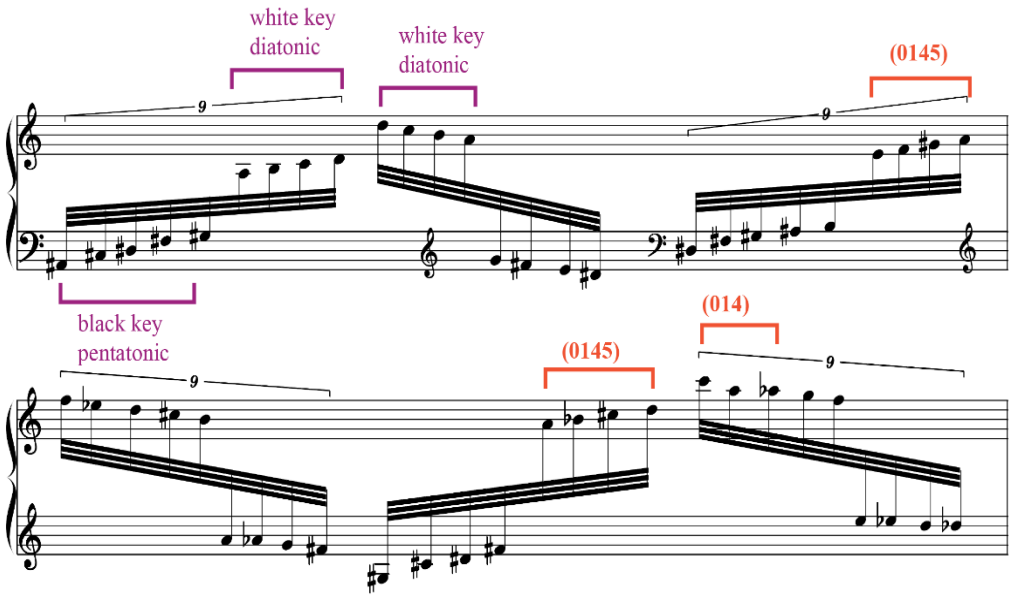

Figure 4.30: "Joy" – Refrain A'', p. 20/ m.3–4

A way to perform this excerpt effectively is to have a light *leggiero* touch and use a transparent pedal. The pedal can be changed every time the left hand crosses back to the bass register. As the ascending and descending arpeggios rise in register, the pianist can gradually expand his/her sound and *crescendo* all the way until the end of p.21/ m.2. At this point, the motif *a* returns (p.20/ m.6), repeats two times and goes through a phrase diminution in which the last quarter-note and first quarter-note gestures are looped two times. This process is interrupted by a dramatic rest. For one more time, Ornstein builds up the tension gradually by fragmenting phrases into smaller and smaller sections and denies the listener a climactic point. Instead, we get a sudden rest that has a powerful "cliff hanger" quality. This idea is recycled a couple of times: 1) on p.17/ m.1 right before the double glissando, 2) on p.19/ m.4 after the phrase diminution. There is a salient dramatic quality about these rests, which are intelligently inserted and contrasted with continuous toccata-esque running figures.

The third episode, labeled as *D* in the arc diagram in Figure 4.16, is introduced in the *Vivo* section beginning on p.21/ m.4. This new section

remains in 6/8 for its entirety, as opposed to the previous sections that had multiple mixed meter changes. The main rhythmic theme *d* is played by the left hand and has a dance-like quality. It is developed in a variation form with three equally distributed sections: *Da*, *Db*, and *Dc* (Figure 4.16). As shown in the arc diagram of Figure 4.16, episode *D* occupies the biggest bulk of continuous thematic material. At first sight, it seems like a peculiar choice for Ornstein to develop this episodic material at such great length in the middle of this Rondo form context.

A possible explanation for this peculiar form is that Ornstein wanted the first half of the piece to feature fragmentary episodes that undergo an expansive process leading to a longer middle episode that is perceived as a climax. Indeed, the phrase lengths of each episode and refrain, as seen in Figure 4.16, are gradually augmented. This sort of architecture resembles an arch form, where the middle section of a piece is central to the overall structure.

In the first variation of episode *D*, Ornstein develops the main rhythmic motif *d* by cutting it in two equal parts. This process is then repeated by dividing each subsection into two new equal parts (Figure 4.31). Motif *d* can be segmented in two sections: *d1* and *d2*. Each subsection begins with a pickup gesture of two repeated dyads, which alternate between 8^{th} notes, 16^{th} notes and 32^{nd} notes. In the coda, this pickup gesture will be further developed. These subsections will be fragmented and repeated in a similar manner as in refrain *A* and episode *C*, where Ornstein uses phrase diminution. As shown in the above excerpt, the left hand consists of purely (01) dyads, this time without octave doublings, as was the case in episode *C*. Phrase *d* is developed in a 2-bar phrase structure and, starting on p.21/m. 8, alternates between minor-2^{nd} (01) and major-2^{nd} (02) dyads.

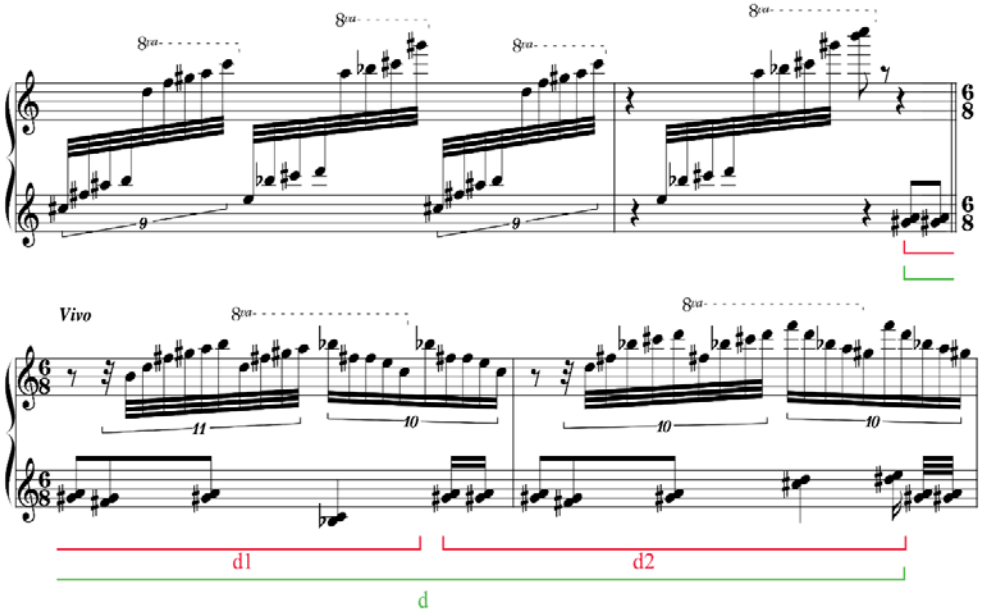

Figure 4.31: "Joy" – Episode D first variation, rhythmic motif d, p. 21/ m.2–5

The right hand is playing some technically very difficult ascending and descending arpeggios that fluctuate between the following 16th-note tuplet rhythms: 7, 8, 9, 10 and 11. The *Vivo* section opens up with a [B4, D5, F#5, G#5, A5] melodic cell or a (02358) 5–25 prime form pentachord set in the right hand, which ascends in undecaplet 32nd notes to the 6th-octave register of the piano. This is followed by a [Bb6, F#6, F6, E6, C6] or (01268) 5–15 prime form pentachord set that descends in decuplet 16th notes. Performers should be careful of this descending arpeggio, because the note F# is not repeated twice and is followed by F-natural. Ornstein scores, as discussed earlier, usually restate accidentals within the same measure.

The right-hand gestures in the first two variations of episode *D* (p.21/ m.4–p.23/ m. 8) are built in groups of tetrachords and pentachords. This becomes obvious to a pianist performing this work, without the need of rigorous harmonic analysis, because these right-hand chords are repeated in different octaves. Also, many of these right-hand pentachordal melodic cell patterns fit perfectly under all five fingers.

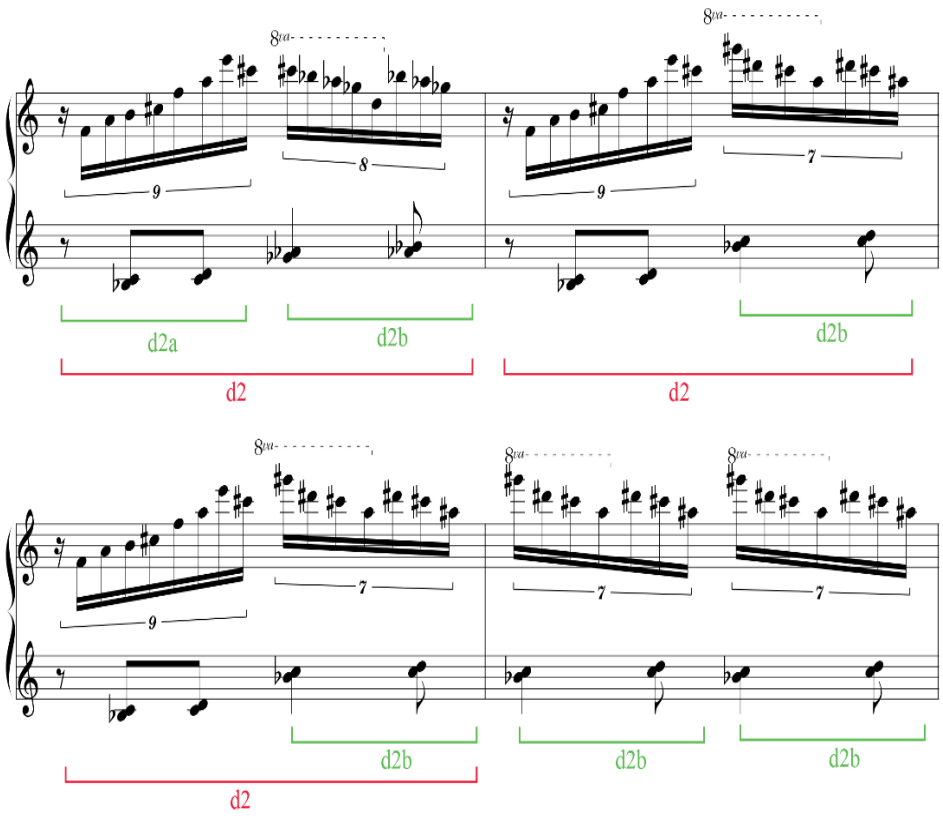

Figure 4.32: "Joy" – Episode D first variation, p. 22/ m.1–4

In the end of the first variation of episode *D*, the rhythmic motif *d2* is segmented even further in two subsections: *d2a* and *d2b*. Both the rhythmic material and diminution process of motif *d2* derives from episode *C* (Figure 4.28, p.18/ m. 8–p.19/ m.2). As before, Ornstein repeats a phrase three consecutive times with minimal changes in harmony, then cuts it in half and loops it two times. He always follows this process by adding a short rest, which is also the case on p. 22/ m. 5.

In terms of interpretation, the performer can use the *marcato* accents on p. 21/m.8–9 as a guide to this passage and accent the first quarter-note dyad of every *d2b* subsection. This way, the rhythmic and thematic diminution becomes more prominent. As suggested earlier in episode *C*, this constant fragmentation process drives the intensity of the music forward and feels

more natural with a gradual *crescendo* or *diminuendo* until the very end of p.22/ m.4.

A small transition after this section brings back the black- and white-key juxtaposition idea from the opening. The right hand plays pentatonic black-note tetrachord melodic cells, while the left hand plays diatonic white-note trichord melodic cells. The pattern starts from the higher register of the piano and gradually descends to the 3rd-octave register, where variation 2 will take place.

Figure 4.33: "Joy" – Episode D second variation, p. 22/ m.9–p.23/ m.4

Variation 2 of episode *D* further develops motif *d* in the left hand and brings back some harmonic elements from episode *C*: (01) sets are voiced as three-voice chords with outer octaves. The bass melody and right-hand arpeggios contain wide leaps, a completely new feature. Ornstein emphasizes downward major-7th leaps and upward augmented-4th leaps in the left hand. The repetition of the note C in the beginning of each bar creates the sense of pitch centricity for the first time in this work.

The toccata-like flourishes in the right hand exhibit an expansive scheme. As shown in Figure 4.33, the melodic outline of the right hand rises and falls in a regular single-bar rate. The distance between the lowest and highest pitches in each bar gradually increases somewhat irregularly. For the first 8 bars of variation 2 (p.22/ m.9–p.23/ m.6), the span of these arpeggios is as follows:

1) octave and a major 7th, lowest pitch: D3, highest pitch: C#5

2) two octaves and a minor 3rd, lowest pitch: D3, highest pitch: F5

3) two octaves and a perfect 5th, lowest pitch: D3, highest pitch: A5

4) two octaves and a perfect 4th, lowest pitch: G3, highest pitch: C6

5) two octaves and a perfect 5th, lowest pitch: B3, highest pitch: F#6

6) two octaves and a major 7th, lowest pitch: B3, highest pitch: A6

7) two octaves and a major 6th, lowest pitch: E4, highest pitch: C#7

8) three octaves and a minor 2nd, lowest pitch: G4, highest pitch: G#5

This list helps to visualize the expansive process employed in this section. It becomes clearer that the melodic outline of each bar expands both in total span and peak. At the same time, the irregularity of span fluctuations seems to be affected by the change of lowest pitches (bar 3–4 and 6–7).

This variation is technically the most difficult, due to the right-hand skips in the middle of each bar and the accurate interpretation of all the polyrhythms. The performer can really bring out the peaks in the middle of each bar and plan them out, so that every time the peak increases, there is a gradually intensifying *marcato* accent. However, the most important material is the left-hand melody and has to be played louder, in relation to the overall lighter touch of the right-hand arpeggios.

The second variation ends with a fragmentation process similar to variation 1: rhythmic motif *d2* is repeated twice (p.23/ m.6–7), then its second half *d2b* is looped twice within a bar (p.23/ m. 8); finally, there are two 8th-note rests (p.23/ m.9). The addition of rests at the end of each episode becomes a vital element of this work.

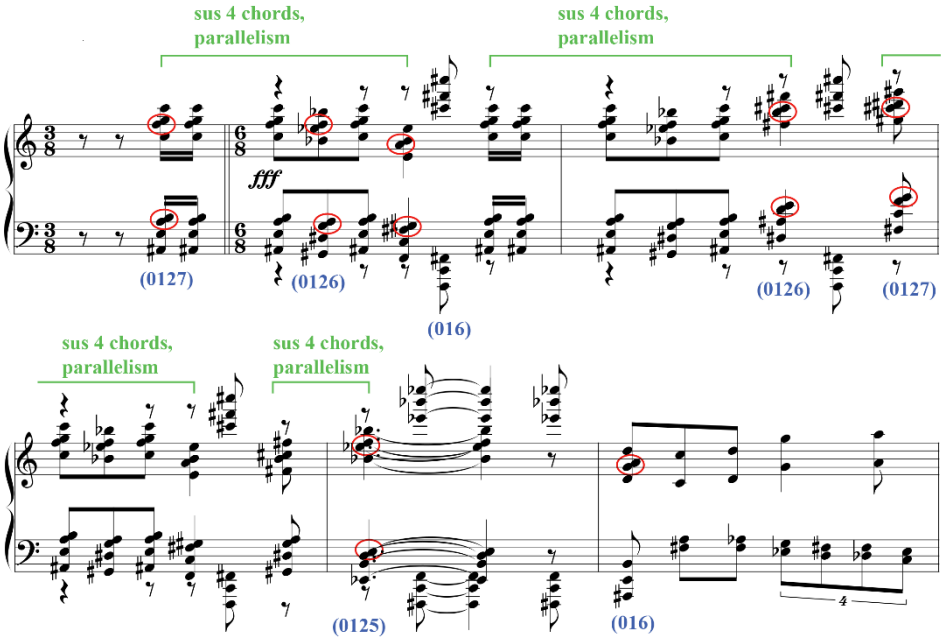

Figure 4.34: "Joy" – Episode D third variation, p. 23/ m.9–p.24/ m.3

The third and final episode *D* variation starts with a bombastic homophonic texture with dense chords in the dynamic *fff*. Each hand plays consequent chords in 4 voices that contain major 2^{nds}. The melodic outline of

these chords restates motif *d*. Actually the contour and rhythmic durations of the first 4 bars in variation 3 can be mapped onto the first 4 bars in variation 1 (melodically and rhythmically). The recurrence of major-2nd dyads within each chordal sonority creates a unified sense of interval-based harmony (shown in red circles in Figure 4.34). The right hand outlines sus4 chords, with major-2nd dyads in the middle that are transposed in parallel. This technique of harmonic planing is very usual in Debussy and Ravel's piano music. The left hand interchanges harmonies between (0127) 4–6 and (0126) 4–5 tetrachords and (016) 3–5 trichords. All chords move in parallel motion, except in the middle of each bar, where both hands leap into the farther ends of the piano in contrary motion and play a three-voice chord each.

Variation 3 can be very tricky technically, especially in terms of playing consequent chords that are moving around the keyboard in voicing that are unusual to piano playing. The easiest way to play the left hand here is to use the thumb for grabbing the two notes next to each other (major-2nd dyads).

The next section of variation 3 breaks the homorhythmic pattern and adds some more variety by juxtaposing 3-over-4 polyrhythms. While the right hand plays a new version of motif *d2* (Figure 4.32), the left hand consists of mainly minor– and major–3rd dyads. These dyads descend chromatically and are always preceded by a (017) trichord leap in the bass.

Figure 4.35: "Joy" – Episode D third variation, p.24/ m.7–11

The ending of variation 3 features the by now familiar by now 3-step fragmentation process employed in refrain *A*, episode *C* and variation 1 and 2. As shown in Figure 4.34, phrase *e* can be broken down to two equal sections: *e1* and *e2*. First, phrase *e* is repeated 3 times with minimal changes; after that, motif *e2* is looped twice unchanged. Finally, we expect a rest to follow, but, instead, Ornstein puts a fermata above a double barline. In this particular context, the fermata can be interpreted as an unmeasured rest.

The recapitulation of refrain *A* arrives on p.24/m.11, where the first three measures are a literal repetition of the refrain. On p.25/m.3–p.26/m.1, Ornstein uses a combination of Hebraic (014) 3–3 trichord sets, chromatic (012) 3–1 sets and diatonic black- and white-key trichord melodic cells.

The coda on p.26 combines material from motif *d* (episode *D*) and motif *a* (refrain *A*). The pickup gestures of motif *d* have now transformed to grace notes and the minor-2nd dyads have changed into major-2nd dyads and single notes. The tuplet ratios of the right hand fluctuate between 7, 8, and 9. The switch between septuplets and nonuplets is a little tricky to coordinate with the steady 6/8 left-hand pattern. This passage should be practiced very slowly and diligently in order to figure out the correct polyrhythmic relationships at a slow "unforgiving" tempo.

In figure 4.36, the 3-step fragmentation process is used again in the left hand, with a few alterations. The first two measures of the coda can be heard as motif *d*. This phrase can be segmented into two sections: *d1* and *d2*. First, Ornstein states the motif only once (as opposed to two times), then he loops the subsection *d2* twice with slight changes in the right hand. Finally, this is followed by a quarter-note rest in the next measure.

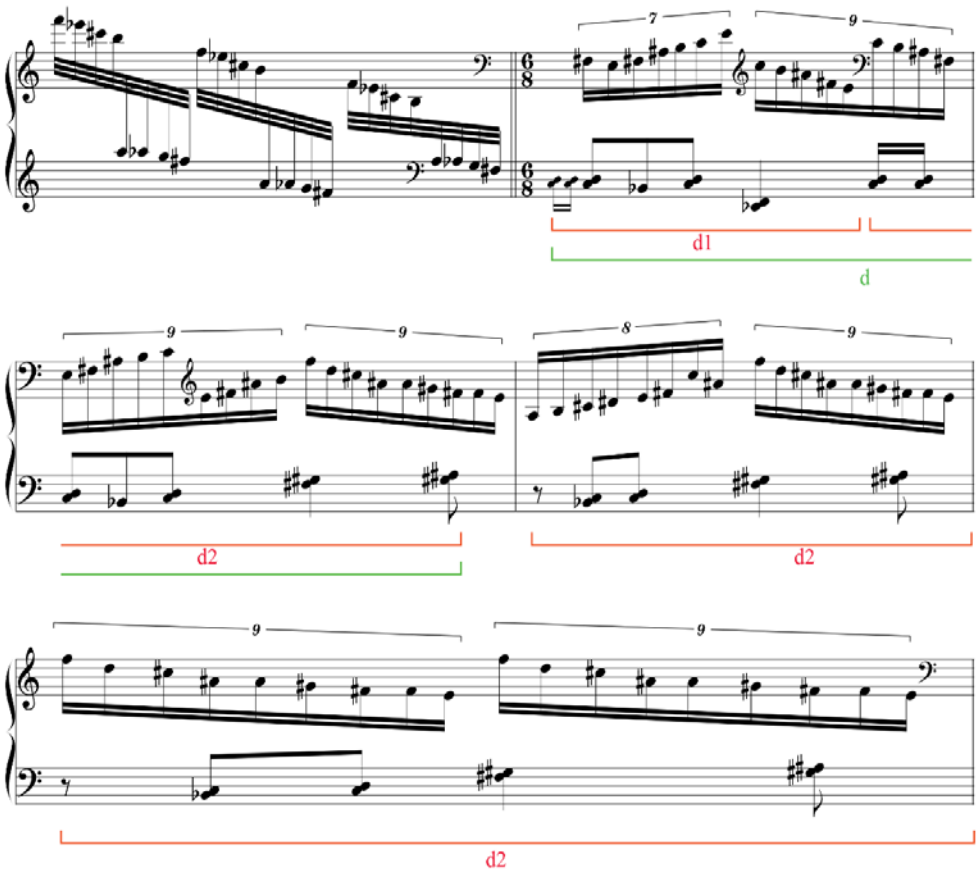

Figure 4.36: "Joy"– Coda, p.26/ m.1–5

The piece ends with two fast monophonic gestures separated by humorous rests between them. The penultimate 32nd-note gesture contains a descending quintal arpeggio that ends in the lowest octave register of the piano. Its pitch content resembles that of episode *D*- variation 3 (Figure 4.34). The final measure includes a quick ascending flourish that ends with a minor-3rd dyad in the highest possible register of the piano.

As a performer, I find it very effective to interpret this coda in a capricious, joking manner. The performer can begin *mezzo piano* and lead all the way to *fortissimo* on p.26/ m.6. However, the very last ascending gesture should be played *subito pianissimo* and as *leggiero* as possible. This dynamic scheme

and an accurate performance of the silences in the last 3 measures can reflect a playful, “joyful” manner of piano performance.

3.5: “Joy” from Three Moods S005– Editorial Comments

I have discussed with Severo Ornstein the possibility of some corrections to the score. These include both engraving errors and manuscript misspellings of pitches. He generously accepted my editorial corrections, and he is considering to make changes on the official Ornstein website[215], where he publishes the entirety of his father’s oeuvre.

The first error is on p. 15/ m.4, where the last nonuplet is incomplete and misses one note. Each left-hand figure consists of a descending chromatic tetrachord cell; therefore, it is clear from the pattern before that the final pitch should be C6 (natural).

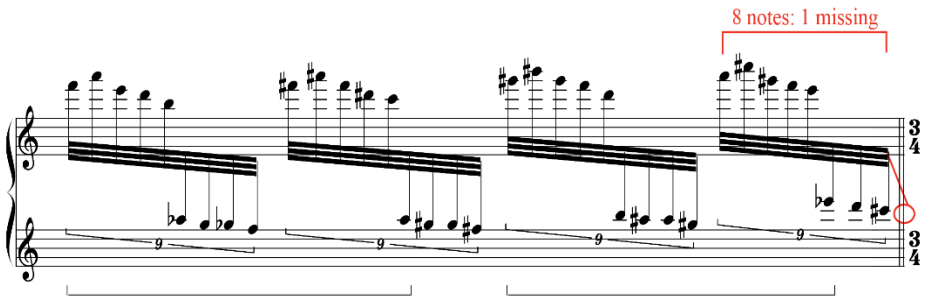

Figure 4.37: “Joy” – Mistake no.1, p. 15/ m.4

The second error is on p.16/ m.1: the left-hand ledger lines are nonsensical and seem to be merging with the upper right-hand staff. In my opinion, these notes should be [A#6, C7], because there is a clear established pattern before this mistake where two notes in the left hand are followed by a note

[215] Ornstein, “Scores: About the Notation.”

in the right hand that is a semitone lower than the previous one, except in the second half of the second beat. Likewise, maybe the 1st and 4th 32nd-notes of the first beat should be D-sharp, rather than E-flat and D-natural.

Figure 4.38: "Joy" – Mistake no.2, p.16/ m.1

The next mistake is on p.19/ m.2 (Figure 4.27), where the left hand should be repeating the same two chords, but instead, changes pitches. It is clear throughout the piece – and confirmed by my analysis of Ornstein's 3-step fragmentation process – that this pattern should be repeated twice.

The fourth mistake is on p.21/ m.9, where the right-hand gesture ends with A. Later, on p.22/ m.2–4, the same passage is repeated with the exact same notes, but the last note is always A#5. For this purpose, I suggest that this note should also be the same; i.e: A#5.

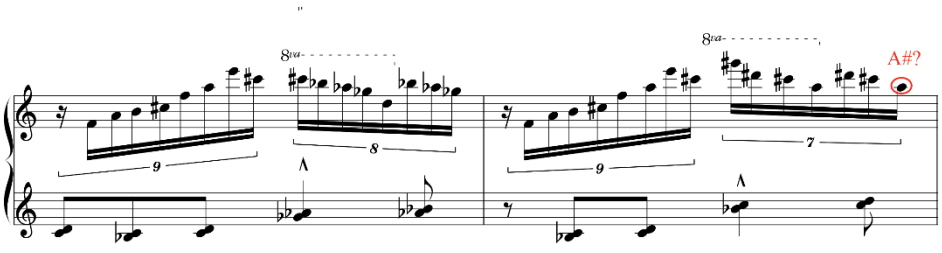

Figure 4.39: "Joy" – Mistake no.4, p.21/ m.8-9

On p.25/ m.1, there is a similar mistake to Figure 4.38, where the left-hand ledger lines are merging with the staff of the right hand. This is the final

return of refrain *A*, which, other than this particular measure, is an exact recapitulation of the same material up until p.25/ m.3. This is the reason why the left-hand dyads should be corrected to [G#6, A6].

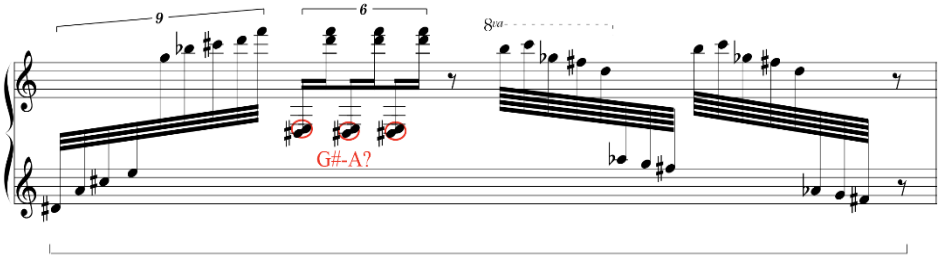

Figure 4.40: "Joy" – Mistake no.5, p.25/ m.1

Finally, on p.25/ m.3, there is another possible candidate for a misspelled passage. The accidentals in the 4th-beat pattern are very random. It becomes clear that beats 3, 4, and 5 should have the same pattern disposed by octaves. Even the order of accidentals is identical to the patterns around this mistake. In other words, the correct notes for beat 4 should be the following: [D#5, E5, C#5, Bb4, A4, G4, F4, E4].

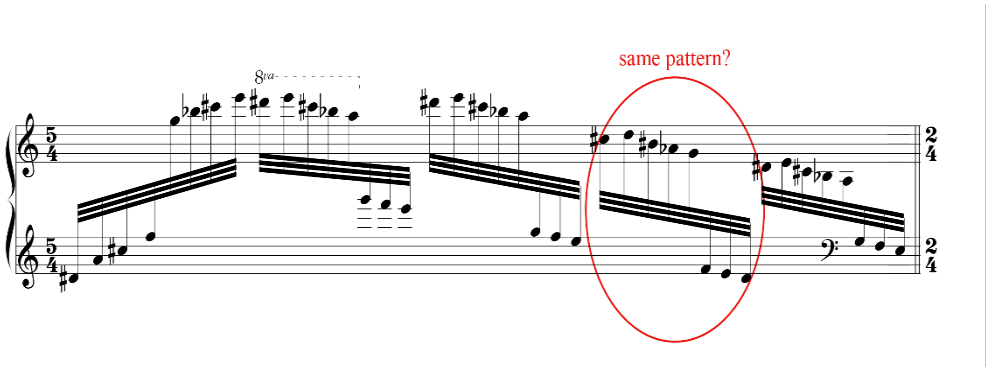

Figure 4.41: "Joy" – Mistake no.6, p.25/ m.3

CHAPTER 4
EXPRESSIVE STYLE

4.1: Fading into Obscurity

On experimentation: "So you see, there is a point beyond which you cannot go. […] That is the last act of [aesthetic] suicide."[216]

Ornstein's concert career was still thriving in the 1920s, and provided financial prosperity and savings for his future family. Ampico, a company that manufactured player pianos, recruited Ornstein among other great pianists, such as Arthur Rubinstein and Sergei Rachmaninoff, to promote their products in exchange for a generous yearly fee.[217]

Between 1919– 1920, Ornstein grew tired of being a poster child for futurism. For almost 10 years he was labeled as "the enfant terrible of contemporary music."[218] As Severo mentioned in my interview, his father did not want to be "the speaking horse or the dancing monkey" anymore. [219] He felt like a show piece and a "freak show."[220] His primary aspiration was that people would really listen to his music and feel it.[221] As a reaction, he strayed away from performing his experimental compositions and went back to playing more traditional repertoire. Initially, this shift did not damage his reputation, as music critics perceived it as a "new mastery and artistic maturity." They started labelling him as a "lyric poet."[222] By 1920, Leo broke out of his own niche and established himself as an "unqualified superstar."[223]

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[216] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 12.
[217] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 206.
[218] Lawrence Gilman, "Opera Magazine: Devoted to the Higher Forms of Musical Art." (R.C. Penfield, 1915).
[219] See Chapter 5.2- "Leo the Pianist" (Interview with Severo Ornstein)
[220] Ibid.
[221] Ibid.
[222] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 145.
[223] Ibid, 146.

At first, being labeled a lyric poet did not damage his reputation, but audiences attending his concerts were expecting to hear his notorious futurist compositions. By 1921, people started to truly understand his music,[224] and to accept his multifaceted stylistic ventures. His fiery persona and youthful looks[225] were a unique selling point, as it separated him from the rest of the Russian-Jewish pianists in America. People did not simply come to listen to any avant-garde music, they came to hear and see Leo Ornstein in flesh and blood.[226]

As Ornstein began turning away from the avant-garde and embraced modal and folk elements, his cutting-edge music was overtaken by the latest modernist fads. Some critics were grateful, but most were perplexed and disappointed with his return to conventionality, though one had to admit that "Ornstein had always been Janus-faced";[227] a composer writing both advanced and more romantic music side by side. Many critics dismissed his expressive works: "This sort of thing is not progression but retrogression."[228] Lawrence Gilman, after listening to his Piano Concerto, thought that Ornstein was "advancing very rapidly backwards."

Ornstein saw the overutilization of material and tone-clusters in experimental music as "aesthetic suicide."[229] He believed that even the most developed ear had a limit as to what it could take in, and that there was no sense in writing something where one could not differentiate texture. "I had to make a decision how far it would be sufficiently audible to the audience."[230] In my interview with Severo, he expressed how his father was fed up with people

[224] Ibid, 192.
[225] Ibid, 207.
[226] Ibid, 145.
[227] Gordon Rumson, "A Composer across the Century," Classical Music Daily, 1999, http://www.mvdaily.com/articles/1999/12/original.htm.
[228] "New York Concerts," *Musical Courier* 84 (n.d.): 58.
[229] In an interview with Vivian Perlis, Ornstein pointed out the futility of perpetual experimentation to one of his young fans. As an example, he mentioned how playing all the notes in the piano at once, as a cluster, is a form of experimental limit, or aesthetic "suicide". (Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 12.)
[230] Ibid, 31.

dictating how he should be writing in a particular style and not retreating to Classical form.[231]

Ornstein eventually retired from his concert career in order to devote himself completely to composing. He admitted to Vivian Perlis that performing was never the center of his life, and that travelling was a "burden."[232] Ornstein did not always enjoy performing, due to his acute stage fright, although he still had to give concerts to provide for his children. Nightlife and small talk after concerts were aspects that he detested.[233] Furthermore, he relished anonymity[234] and was indifferent to the lack of recognition his music had received after his period of fame.[235] Ornstein dismissed seeking fame as a life goal that led to vanity, and maintained an almost naïve perception that, if his work had any significant musical value, it would eventually be appreciated and performed.[236] Little did he know, that unless his son Severo spent 10 years of his life collecting and transcribing his manuscripts, his legacy may have faced near extinction. All things considered, Leo Ornstein was glad to give up performing[237] and his fading into obscurity was an entirely deliberate choice.

For the next 33 years, between 1937– 1970, Ornstein stopped composing, with only rare sparks of inspiration, and completely withdrew himself from the limelight. By the 1960s he was completely forgotten. He dedicated a lot of time to teaching and founding the Ornstein School of Music. This school was focused on a holistic and intuitive education plan that nurtured the jazz pioneer saxophonist-composer John Coltrane.[238] After he retired from teaching in the mid-1950s, Ornstein and his wife, Pauline, traveled around the United States and

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[231] " 'You should be in this style, or that style. What are you doing? Why are you giving up on your radical stuff! Why are you retreating into Classical form?' and he was basically saying: 'Screw them, this is what I am doing!' " [See Chapter 5.3- "Leo the Composer" (Interview with Severo Ornstein)]
[232] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 25.
[233] Ibid.
[234] Ibid 24.
[235] Ibid 22.
[236] Ibid 23.
[237] See Chapter 5.2- "Leo the Pianist" (Interview with Severo Ornstein)
[238] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 220.

visited Mexico.[239] One of the only concerts with Ornstein's music, during his 33-year period of absence,[240] was organized by the *League of Composers,* which sponsored a concert in memory of Paul Rosenfeld in 1949. Henry Cowell was present, and despite having been one of the most prominent advocates of Ornstein's music in the past, he dismissed his later style as not fitting the modernist agenda, and would no longer consider him original.[241]

Ornstein finally settled down to write music again in the 1970s, and enjoyed a very prolific period. In my interview, Severo gives most of the credit to Pauline Ornstein, who pushed Leo and "wasn't going to let him get away."[242] Had it not been for her, the world may never have had *A Morning in the Woods* and countless other works written after that date.

4.2: Style Overview

> *"If you were to strip the color elements from one of my chords you would find its actual structure one of Grecian severity of outline. But it requires study to distinguish between the fundamental tones and those purely incidental."*[243]

Ornstein's expressive style is instantly recognizable. When he is not experimenting with tone clusters and extreme percussive effects, he writes in a distinctive lyrical manner. During his concert career in the late 1910s, his compositional style started incorporating certain motivic elements that can be thought of as his "signature", or a sign of maturity. Prior to analyzing works in this expressive style, it is important to build a framework, in order to understand how he manipulates recurring motivic cells.

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[239] Severo Ornstein, "About Leo Ornstein," accessed May 9, 2021, http://poonhill.com/leo_ornstein.html.
[240] Excluding performances within the Ornstein School of Music.
[241] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 243.
[242] Apostolou, See Chapter 5.11- "Years of Absence" (Interview with Severo Ornstein)
[243] Martens, *Leo Ornstein: The Man - His Ideas - His Work*, 244.

Some of the basic elements present in his expressive works are the following: extensive use of augmented-2nd and augmented-4th intervals, irregular rhythmic groupings, polyrhythms, shifting accents and also use of expression marks like *cantabile, misterioso, intense, frenetico*.[244] In works like *To a Grecian Urn S154, Solitude S116,* and *A Reverie S150,* he makes subtle use of the aforementioned elements and has simpler meter and phrasing. In his Piano Quintet S610 and Piano Sonata No. 4 S360, he combines passionate lyrical melodies along with clusters, (0145) and (014) Hebraic motivic cells, polyrhythms and polymeter.

Five motifs frequently appear in his expressive works: the turn, the anticipation, the leap,[245] the "Hebraic trichord cell", and the "codetta".[246] The latter is a technique used in the end of a work, which includes bass chord drones juxtaposed with fragments or "echoes" of thematic material in the treble register. Hebraic cells are used in multiple ways. They become the basis for melodies, hybrid modes, chords, and contrapuntal imitation. In my opinion, these five elements are essential in defining his expressive style. I will make a comparative analysis of how these motifs and pitch sets appear in his expressive works.

4.3: Turn motif

The motif that appears most frequently in Ornstein's expressive works is the turn motif. It can be defined as a brief melodic gesture that changes direction with CAS <+, -> or <-, +>, one to three times. It also consists of fast note durations that lead to a single slow note duration. In most cases this motif appears in step-wise motion, and is indistinguishable from a traditional Baroque *cadence* or turn; however, in Ornstein's music it is characterized by numerous rhythmic variations and intervallic transformations. He will sometimes outline wider intervals and odd rhythmic groupings.

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[244] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 172.
[245] The turn, anticipation, and leap motifs were originally identified by Gordon Rumson. [Rumson, Gordon. "Some Musical Fingerprints in the Compositions of Leo Ornstein." unpublished. (unpublished paper supplied to the researcher by Severo Ornstein)]
[246] "Hebraic trichord cell" and "codetta" are new descriptive titles I chose, in order to label motifs discussed in my Thesis.

When Ornstein would perform these motifs, he did not play them *leggiero* like Baroque ornaments, but with a controlled bell-like singing tone. In his site, Severo Ornstein has uploaded recordings of his father's *Composing Sessions.*[247] After interviewing him, he clarified to me that these were tapes with multiple edits. Ornstein would use them as a reference for drafts of new works and he would carelessly write over the same tape multiple times. In *Composing Session 1* one can hear his singing tone and how, even in seemingly ornamental passages, the hand and wrist are applying weight to bring out the principal melody.[248] The way he annunciates these kinds of motifs sounds like the vocal *flamenco* style *cante jondo* and brings to mind Ravel's *Alborada del Gracioso* and De Falla's *Ritual Fire Dance.*

In the example below (Figure 5.1), the turn motif is used to embellish a diatonic melody descending in step-wise motion (right hand in red). It is first stated in 32nd-notes, then is repeated, and finally it is augmented in 8th-notes and expanded, by an additional starting note. The motif is always syncopated and, in this case, it always begins in the second 8th-note ("and" of beat 1). The composer allows space in the texture for the motif to be projected *cantabile*.

The CAS of the turn motifs in the first two measures below is <-, -, -, +> and the CC is <3-2-1-0-1>. The third measure has a CAS of <+, -, -, -, +> (including the note F4 in the following measure not shown below), and a CC of <2-3-2-1-0-1>. All motifs have the same amount of notes, they share a subset of <3-2-1-0-1> and end with a <-, +> tail [Db5-C5-Db5], [Ab4-G4-Ab4], [F4-Eb4-F4].

[247] Severo Ornstein, "Audio," poonhill, accessed May 14, 2021, https://poonhill.com/audio.html.
[248] An example of this is in 0:55-0:57 of *Composing Session 1.*
(Ibid.)

Figure 5.1: Solitude S116 –Turn Motif in Red, p.2/ m.7–9

Another example of the turn motif can be found in Four Impromptus – S300a (Figure 5.2). Here, Ornstein utilizes the turn motif in an inner voice in the left hand. The motif embellishes a simple ascending *cantabile* line in the tenor. In this case, the texture is thicker and harmonically dissonant, while the turn motif is diatonic.

The CAS of the first motif is <+, -, -, +> and the CC is <1-2-1-0-1>. The CAS of the second motif is <-, -, +> and the CC is <2-1-0-1>. This CC is a subset of all three Figure 5.1 turn motifs.

Figure 5.2: Impromptu No. 1 from Four Impromptus S300a – Turn Motif in Red, p.2/ m.1–3

In his celebrated Piano Quintet S610, Ornstein begins with “one of the clearest examples of a passage that many critics, as well as Ornstein

himself, heard as Jewish or Russian."[249] This occurs in the beginning of the second movement, where the first violin and cello are playing two octaves apart, as they open with a melody that Michael Broyles describes as "haunting."[250] As shown in Figure 5.3, the turn motif in red first appears in measure 3 and is in triplets. The gesture ascends and descends in step-wise motion, in the following bar ascends one last time, and ends in the note E. The 2nd violin and viola are sustaining a dissonant tetrachord drone, while allowing the turn motif to be projected in the foreground. Broyles interpreted this passage as "haunting" and "Jewish," probably due to the mystical trance-like atmosphere, which is also reinforced by (0145) tetrachord and (014) trichord pitch sets. The melodic notes E and F of the 1st violin and cello are clashing with the G# octaves in the 2nd violin and viola and the A grace note of the 2nd violin: [G#5/G#3, F6/F4, E6/E4] are a (014) trichord and [A5, G#5/G#3, F6/F4, E6/E4] are a (0145) tetrachord in prime form. For a more thorough analysis of this technique, please see Chapter 4.7.

The CAS of the turn motif in red below is <+, +, -, -, +> (including the notes E4/E6 from the following measure, played by violin 1/cello). The CC is <0-1-2-1-0-1>. The CC <2-1-0-1> and CAS <+, -, -, +> subsets are included in all previous turn motif examples as well.

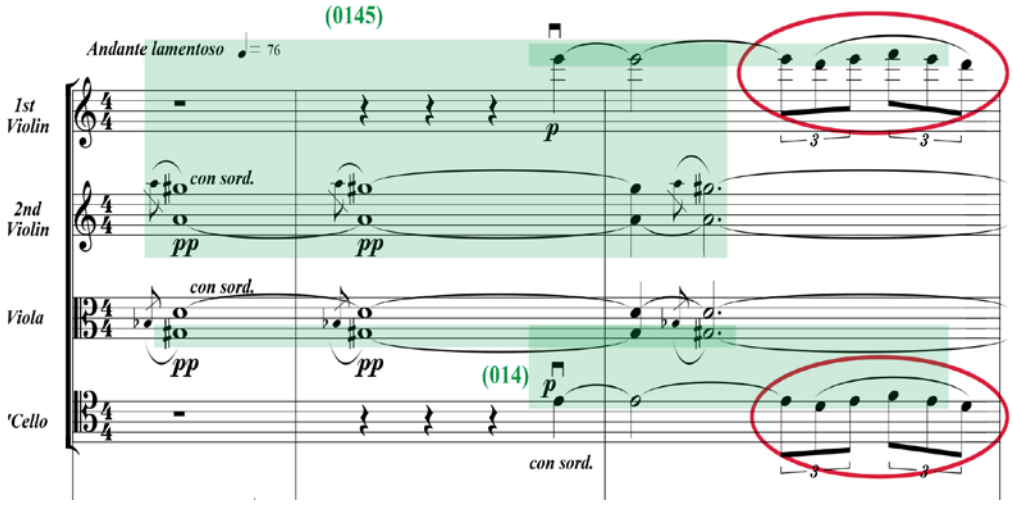

Figure 5.3: Second Movement from Piano Quintet S610, Turn Motif in Red, p.111/ m.1–3

[249] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 172.
[250] Ibid.

An intervallic transformation of the turn motif can be seen in Figure 5.4. The melodic contour is similar to previous examples, but the intervals are wider. The first motif in red begins with a group of three adjacent quintuplet 16th-notes, but then wedges out to a minor 3rd and a perfect 5th in opposite directions, and finally closes with a descending whole-step. The second motif also begins with a group of three adjacent notes that is followed by a diverging wedge of a perfect 4th and a perfect 5th, and closes with a descending whole-step.

The CAS of the first motif is <+, -, -, +, -> and the CC is <1-2-1-0-3-2>. The CAS of the second motif is identical and the CC is <1-2-1-0-2-1>. The subset <1-2-1>, included in both turns below, is an inversion of <1-0-1>, which is a subset that is present in all aforementioned turn motifs.

Figure 5.4: Solitude S116 – Turn Motif in Red, p.8/ m.1–2

In other works, Ornstein chains together multiple groups of turn motifs. Figure 5.5 shows turn motifs in red and anticipation motifs in green. In his piano work *A Reverie S150*, Ornstein uses turn motifs that usually begin with groups of three ascending 16th-notes and lead to descending triplet 8th-note turns in diatonic step-wise motion. The first turn motif outlines an Fb Lydian pitch space over a recurring Bb pedal in beat 3, while the second turn motif outlines a Bb major-minor pitch space. The major-minor mode has the following whole-step interval sequence: {1, 1, ½, 1, ½, 1}.

The CAS of the first motif in red is <+, +, -, -, -, +, -, -> and the CC is <2-3-4-3-2-1-2-1-0>. The CAS of the second motif in red (m. 3, Figure 5.5)

is <+, +, +, -, -, -, +, -, ->, which, excluding the first note, is identical to the first turn motif. The CC is <1-2-3-4-3-2-1-2-1-0> and is also identical, if the first note is excluded. The subsets <2-1-0-1> and <-, -, +> are included in all turn motifs from Figures 3.1, 3.2, and 3.3.

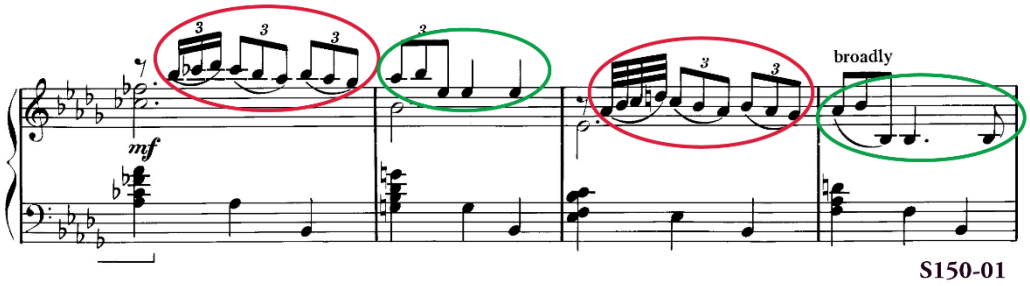

Figure 5.5: A Reverie S150 – Turn Motif in red, Anticipation Motif in green, p.1/ m.8–11

4.4: Anticipation motif

The anticipation motif is a gesture that usually begins on beat 1, or as a syncopation of the first beat. It consists of accented passing tones that lead to repeated notes. Occasionally this motif acts as a closing cadence, ending with 2 or 3 repeated notes. The direction of the melodic line is based on 3-note cells that have one of the following CAS c-segs:

1. <-, =>
2. <+, =>
3. <=, ->
4. <-, =>

These kind of 3-note cell motifs are also utilized as subsets in longer chains of anticipation motifs (Figure 5.7, 3.8, 3.9), or with extensive repeated notes (Figure 5.6, *A Morning in the Woods* – p.1/ m.7, 9).

Figure 5.5 includes two anticipation motifs in green. They start on beat 1 with ascending step-wise motion, and then descend with a leap followed by two repeated notes. Both motifs are superimposed over dominant 7th chords

and a Bb pedal in the bass: first inversion Eb^7 (Figure 5.5, m.2) and second inversion Bb^7 (Figure 5.5, m.4). Both anticipation motifs have the same c-seg: CAS <+, -, =, => and CC <1-2-0-0-0>. The general outline of this melodic idea is based on 3-note cells with CAS <-, => [1st motif: Bb5, Eb5, Eb5] and [2nd motif: Bb4, Bb3, Bb3].

In the following example from the first movement of Ornstein's Piano Quintet, the 1st violin plays the principal theme. This primary theme is extremely passionate and has a particularly Hebraic and Middle Eastern sound. It opens with a 2-measure phrase in the C Byzantine mode or "double harmonic scale" or Hitzaz Kar, which has the following whole-step interval sequence: {½, 1½, ½, 1, ½, 1½}. This mode has two Hitzaz (0145) 4-7 melodic cells, starting from the 1st and 5th degrees. The melody in the following passage rises, falls, and then ends with an anticipation that is immediately followed by a repetition of three notes. The CAS of the anticipation motif in Figure 5.6 is <-, =, => and the CC is <1-0-0-0>.

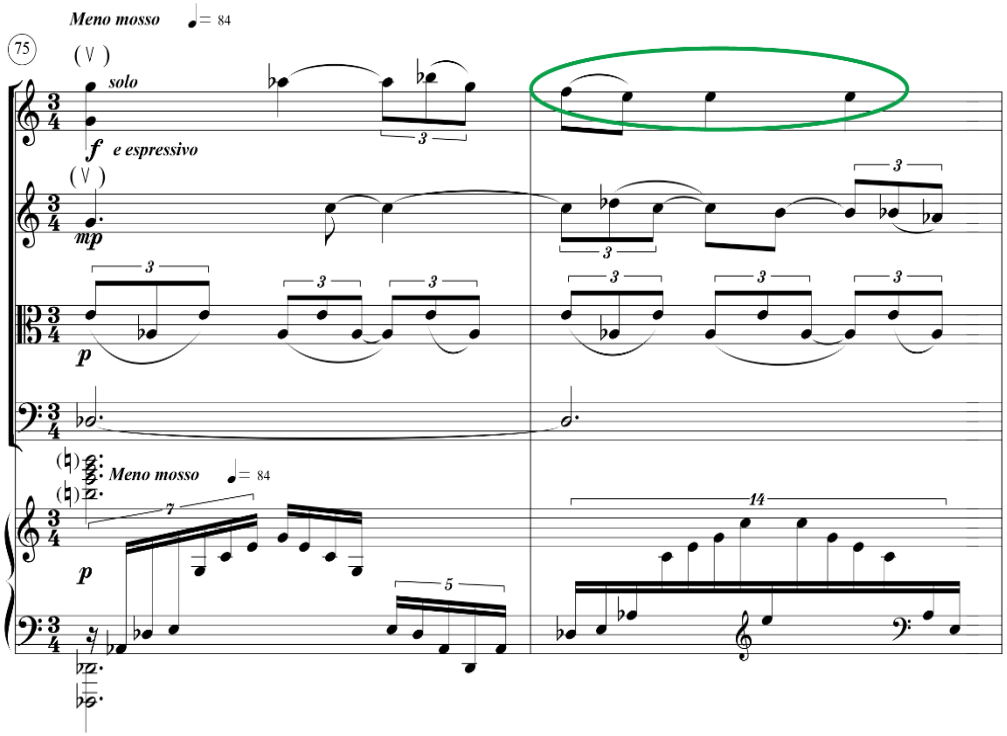

Figure 5.6: First Movement from Piano Quintet S610, Anticipation Motif in green, p.111/ m.1–3

Another example from Impromptu No. 1, S300a uses the same motif in ascending step-wise octaves with quarter note anticipations. The pattern appears as a syncopation of beat 1 and it is surrounded by turn motifs that are marked in red. The arpeggiando harmonies of the left hand are halted in order to bring out the lyrical anticipations in the right hand.

The turn motif CC of turn motifs in red is <2-1-0-1>, which is a subset of previously mentioned motifs in Figures 3.1, 3.2, 3.3, and 3.5. The anticipation motif CAS in green is <=, +, =, +> and the CC is <0-0-1-1-2>. This motif is based on 3-note cell c-seg subsets with CAS <=, +> and CC <0-0-1>. (D-D-E). This is related to the anticipation motif c-seg of Figure 5.6 as a retrograde inversion (CC <1-0-0> and CAS <-, =>).

Figure 5.7: Impromptu No. 1 from Four Impromptus S300a – Turn Motif in Red and Anticipation Motif in green, p.11/ m.4

Another way Ornstein utilizes this motif is with descending leaps. In the following example, taken from his Fantasy Piece No. 3 S440a, the anticipation motif is marked in green. It is played by the right hand and accompanied by B major quintal and quartal harmonies. The left hand is playing fluid arpeggios that move polyrhythmically in 8th-note tuplet ratios of 8:6. The anticipation motif appears in 8th-notes and 8th-note triplets. It begins as a syncopation in beat 1 and leads to a quarter note or a half note.

In Figure 5.8, the c-seg of the first anticipation motif is CAS <=, -, =, -> and the CC is <2-2-1-1-0>. The second anticipation motif has CAS <-, => and CC <1-0-0>. Finally, the third motif has CAS <=, -> and CC <1-1-0>. The melodic contour of the first and third anticipation motifs in Figure 5.8 are an inversion of the motif from Figure 5.7 (green). Also, the second anticipation motif below is a retrograde inversion of the motif in Figure 5.6 (first 3 notes). The following motifs are based on 3-note cell c-segs with CAS <=, ->: [G#6, G#6, D#6], [D#, D#6, A#5], [A#5, A#5, F#5], or its inversion <-, =>: [B5, F#5, F#5].

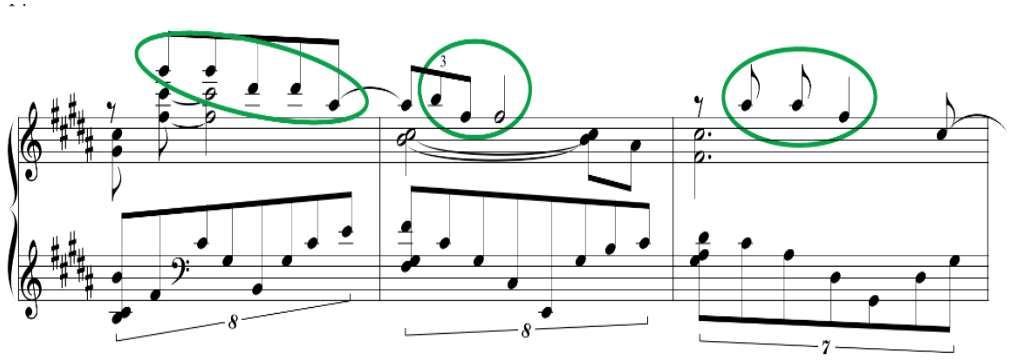

Figure 5.8: Fantasy Piece No. 3 from Three Fantasy Pieces S440a, Anticipation Motif in green, p.14/ m.1–3

Sonata No. 4 S360 is one of Leo Ornstein's most popular works in the expressive style. Each movement has a distinct mood, the first movement is very appassionato and brings to mind the romantic idiom of Rachmaninoff's Piano Sonata No.2 Op. 36. The second movement is in arch form (ABCBA) and is rich in folk-inspired melodies that resemble the modal language of Ernst Bloch and De Falla. The *B* section has an unfolding melody in the middle staff that can only be performed by redistributing it in both hands, in order to play all three staffs at the same time. The anticipation motif in green is embellished with short grace notes that approach each note in step-wise motion. The phrasing of each anticipation implies an expressive emphasis and pleading emotion that is also present in *flamenco* and Ladino vocal traditions. Another element indicating a folk influence is the usage of F# Phrygian dominant modes. The Phrygian

dominant mode or Freygish has the following whole-step interval sequence: {½, 1½, ½, 1, ½, 1}.

The CAS of the first anticipation motif below, not including grace notes, is <=, -, =, -, => and the CC is <2-2-1-1-0-0>. The second motif has identical CAS and CC. Both anticipation motifs are also identical to Figure 5.7 and 3.8. They are based on a 3-note cell c-seg with CAS <=, -> [B3, B3, A3], [A3, A3, F#3], [E4, E4, D4], [D4, D4, C#4].

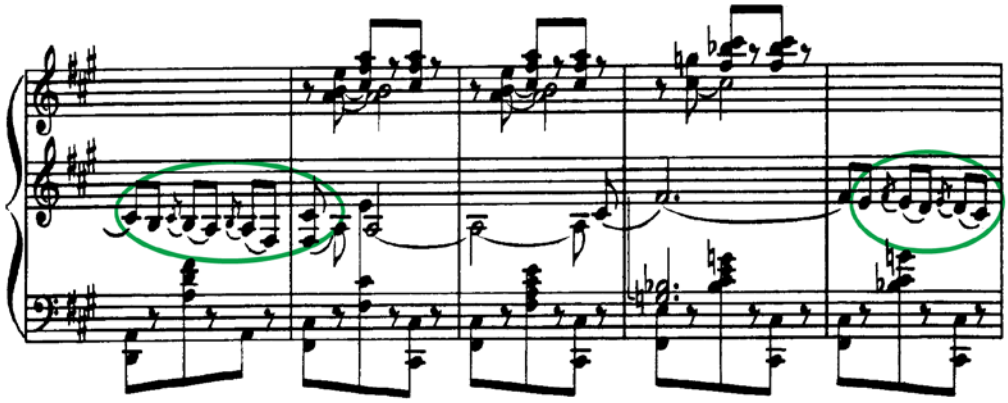

Figure 5.9: Second movement from Sonata No. 4 – S360, Anticipation Motif in green, p.12/ m.6–10

Another variation of this motif is used in Ornstein's *Solitude S116*, where anticipations are proceeded by a rising 4th leap and descending step-wise motion. In this case the passage is in C# Phrygian and the anticipation motif emphasizes melodic pitches that are clashing with the C# minor accompaniment arpeggios. In this context, the anticipation motif feels unresolved and *doloroso*. Finally, the motif is resolved in step-wise motion to a consonance.

Both anticipation motifs in green have CAS <+, -, => and CC is <0-2-1-1>. This c-seg is based on a 3-note cell that starts on the second note with CAS <-, => [E4, D4, D4], [B5, A4, A4].

Figure 5.10: Solitude S116 – Anticipation Motif in green, p.5/ m.1–3

More examples of this anticipation motif will be explored in the analysis of *A Morning in the Woods S106a*.

4.5: Leap motif

In Ornstein's work, the leap motif is associated with sorrow and introspection. The motif is dotted and usually appears in *piano* or *pianissimo*[251] and resembles the Baroque *nachschlag* ornament, which is a grace note performed after the beat. All leap motifs have CAS <+, -> and CC <0-2-1>.

In the example below, taken from a piano solo section in the third movement of the Piano Quintet S610, the right hand states a leap motif in the middle of a melodic line with hints of regret and pain. The entire passage is in the octatonic OCT (0, 1) mode and contains cross rhythms of 4 against 3. The anticipation motif breaks this polyrhythmic pattern and emphasizes the duple meter outlined by the left hand. The motif rises by a minor 3rd and then falls by a major 2nd.

[251] There are some exceptions like *Arabesque No. 2 "Primal Echo,"* an experimental work, where the anticipation motif emphasizes *sffz* octaves in the right hand.

Figure 5.11: Third Movement from Piano Quintet S610, Leap Motif in purple, p.199/ m.3–5

The example below is identical in terms of intervallic structure, but is emphasized by homophony and a sparse texture. The left hand is sustaining quintal and quartal harmonies, centered in the key of Ab Mixolydian. While this bass sonority is being sustained by the pedal, the leap motif is heard in the high register of the piano as a distant memory. The shift between the G–sharps and G–naturals in the melody is hinting at a juxtaposition of Ab major and Ab Mixolydian modes.

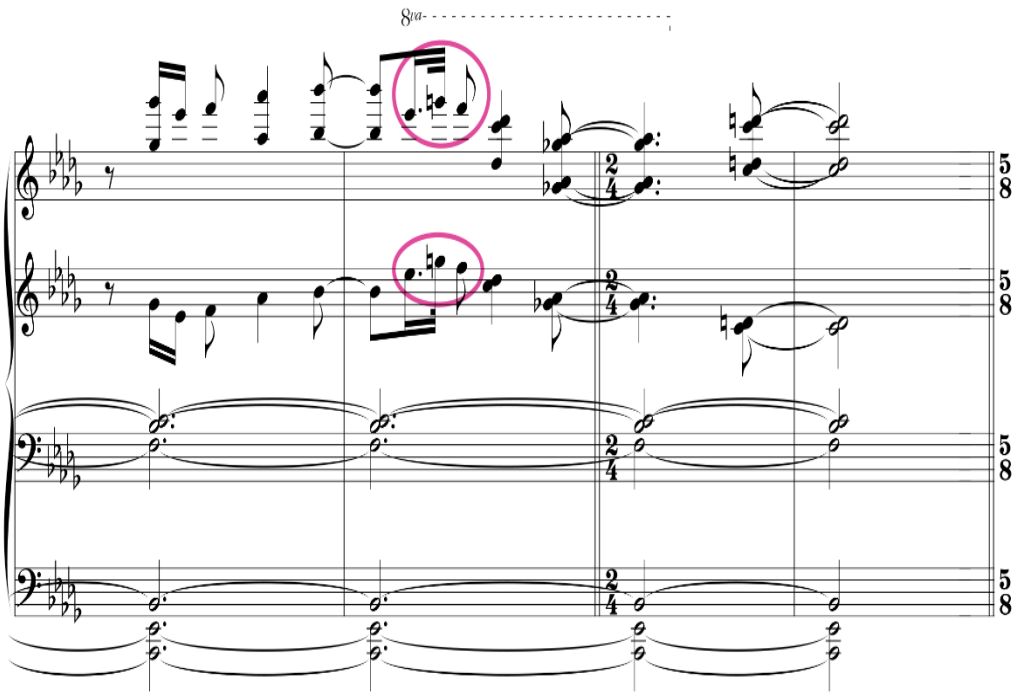

Figure 5.12: To a Grecian Urn S154, Leap Motif in purple, p.4/ m.1–4

A variation of this motif can be seen below, in Metaphor No.1 S200a,[252] where the leap motif is embellished with step-wise acciaccaturas. The A Dorian melody in the right hand circles around the note E5. Turn motifs in red are emphasizing 16th intervals between E5 and E3 in the soprano and tenor voices. The melody leaps by a major 3rd and then descends in step-wise motion.

Figure 5.13: Metaphor No. 1 from "Metaphors" S200a, turn motif in red, leap motif in purple, p.1/ m.1–4

In the third movement of his Piano Sonata No. 4 S360, Ornstein uses the leap motif, but this time it is approached by perfect–4th leaps in *pianissimo*. The second leap motif in the example below can be described as an embellishment of the anticipation motif [G, F#], which descends in 8th-note motion and repeats twice.

[252] For the origin of the title of the piano cycle "Metaphors," please see Chapter 5.12 – "Revival."

Figure 5.14: Third movement from Sonata No. 4 – S360, Leap Motif in purple, p.22/ m.1–2

4.6: Codetta motif

Strongly associated with nostalgia and longing, the codetta motif appears in expressive works as an ending passage that provides relief. It consists of sustained bass chords and melodic fragments or "echoes" in the high register of the piano. These treble echoes are outlining melodic cells that are usually based on thematic material.

In the example below, taken from Ornstein's work *Solitude*, the bass includes arpeggiated Bbsus[2] harmonies. The middle staff includes a codetta motif and a fragment of the primary theme. The thematic fragment is followed by a repetition of the last note [C4].

The motif is repeated three times, the first two are almost identical, and the third one is a 3-note fragment from the three last notes of the

preceding “echo”, but in a different order. The entire section is in Ab major pentatonic and is played as softly as possible. Indications like *coda* and *calmato* are reinforcing a lightness of touch and gradual *rallentando* that could be useful for the last three measures.

The first two turn motifs in red have a CAS of <+, -, -, +, -> and a CC of <1-2-1-0-3-2>. The subset CAS subset <+, -, -, +> is included in turn motifs from Figures 3.2, 3.3, and 3.4.

Figure 5.15: Solitude S116, Codetta Motif in purple and red, p.8/ m.3–6

In the work *To a Grecian Urn S154*, Ornstein uses simple harmonic material, repeated notes and a 5-note melody (in red) that evokes images of childhood. At the end of the piece, the principal theme is brought back and fragmented in the high register of the piano, and outlines a Db Lydian melody. The return of the main theme in red also transforms the meter, which is

irregular during most of the work. In the opening, there is an ostinato pedal tone F in quarter notes in the bass, which is contrasted with mixed meter changes (5/8, 3/8, 4/8, 2/4, 3/4, 4/4). Another similar work featuring mixed meter changes over a steady duple ostinato is Stravinsky's *L'Histoire du Soldat.* In Ornstein's *To a Grecian Urn,* the codetta motif aids in resolving all metric irregularity to simple 3/4 meter.

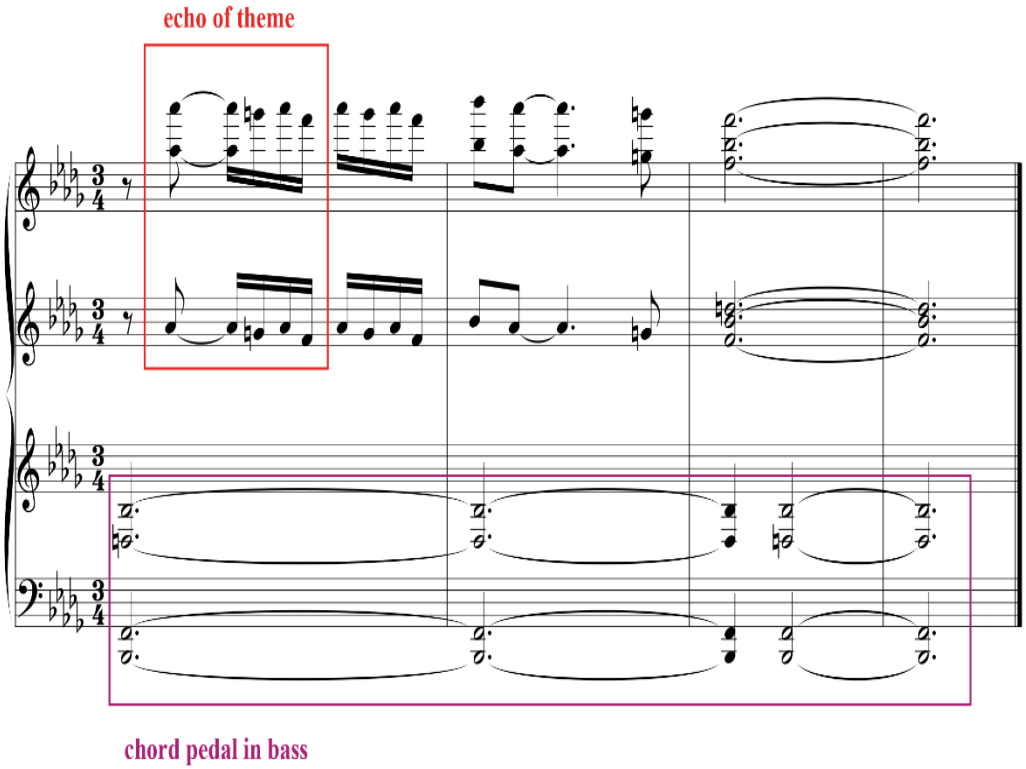

Figure 5.16: To a Grecian Urn S154, Codetta Motif in purple and red, p.5/ m.9–12

Finally, in the second movement of Sonata No. 4, the left hand outlines widely spaced chords that are shared across both hands. Melodic echoes in the right hand and ascending arpeggios in the bass center around a clearly established F# pitch center. All arpeggios start with a [F#1, F#2] octave pedal as the inner voices outline diminished-7th chord extensions that descend chromatically (2nd measure: [E3, G3, Bb3, C#3], 3rd measure: [D#3, F#3, A3, C3]). Every arpeggiated chord in the bass is followed by a descending 4th motif

in the soprano that derives from thematic material in the *C* section (p.13/ m.9). The left-hand harmonies should be played softly and *leggiero*, while carefully voicing the pedal F#1 with the pinky. The echoes in the right hand are very effective if performed with a weighted touch and bell-like sonority.

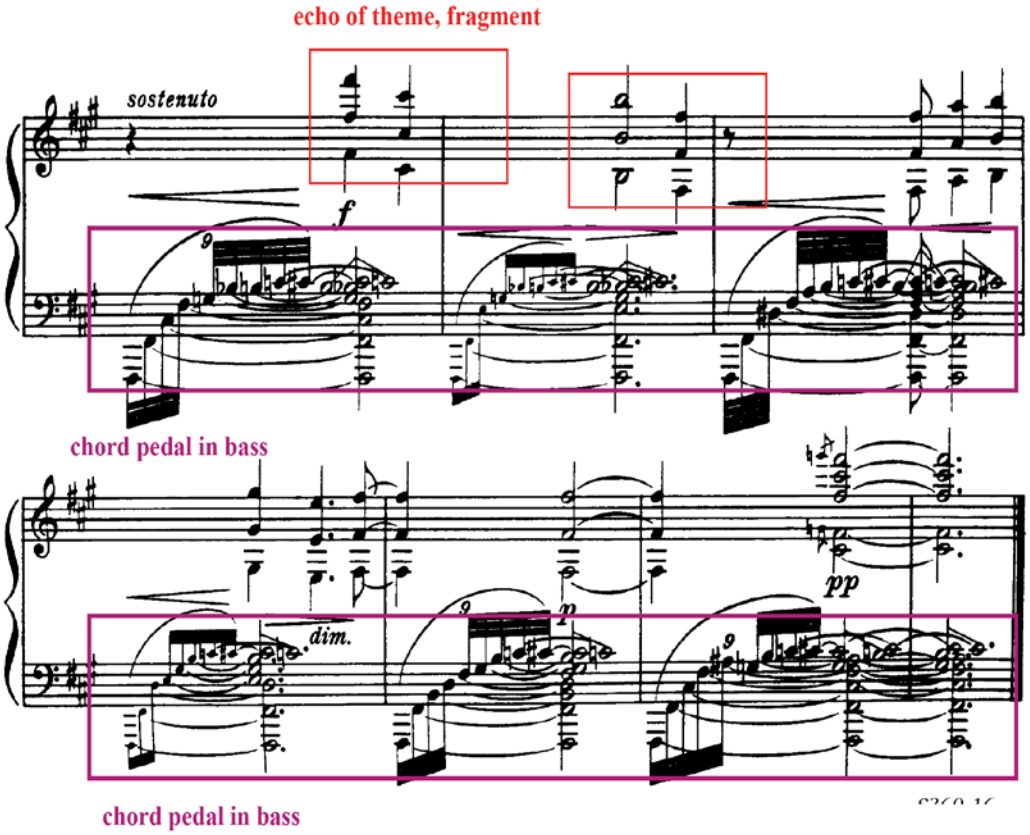

Figure 5.17: Second movement from Sonata No. 4 – S360, Codetta Motif in purple and red in purple, p.16/ m.11–18

4.7: Hebraic Trichord Cell Motif

As discussed in Chapter 1 and Chapter 3, Ornstein makes frequent use of (014) trichords and (0145) tetrachords in his music, which, as a result, contribute to a Hebraic or Eastern European sound. In his expressive style, these sets become much more prominent, not only as harmonies and melodic cells, but also as modes and pitch spaces.

In the second movement of Sonata No. 4, (014) sets are used both as a harmonic and melodic device. In Figure 5.18, the *Con fuoco* section begins with a Gmin^{maj7} trichord with the following notes: [G, Bb, F#], which is (014) trichord in prime form. The right hand plays repeated octaves that intensify and gradually rise in register. They combine with the harmony to create even more (014) cells. In measure 1 beat 2, the right hand plays: [B/F#, Bb, G], which is a (0145) tetrachord in prime form. Other melodic cells, such as [Bb, C#, D] (m.2), [C#, D, F] (m.2-3), and [D, F, F#] (m.2-3) are also (014) trichords in prime form. Excluding the bass octave ostinato Eb, this whole passage is in F# Byzantine or double harmonic mode [F#, G, A#, B, C#, D, E#] (Figure 4.19). Ornstein fully exploits the fact that this mode has four (014) trichord subsets.

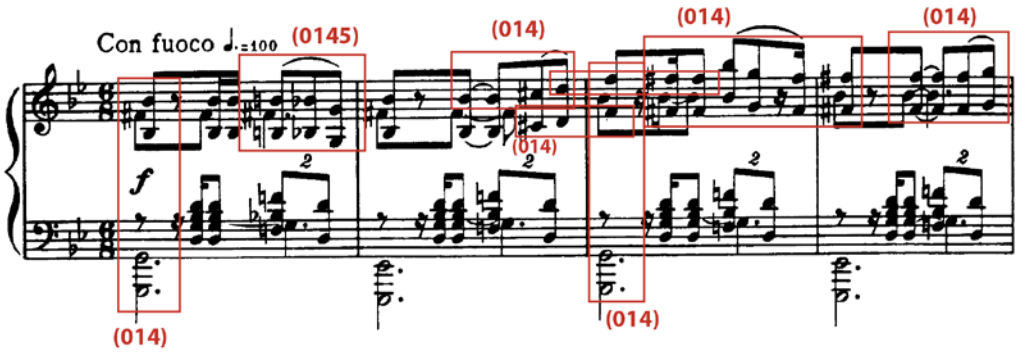

Figure 5.18: Second movement from Sonata No. 4 – S360, (014) sets, p.13/ m.9–12

Piano Quintet S610 uses Hebraic (014) trichords extensively in a plethora of ways. In the first measure of the graph below, the piano superimposes multiple (014) trichords: [A1/A2, F3, G#4], [E4, G4, G#4], and [A1/A2, C4, G#4]. Violins 1 and 2 also outline a melody in octaves with (014) trichord cells: [B, D, Eb], while the cello is doubling another (014) trichord with the piano. In the *Doppio movimento* section (Figure 5.19, m.2), the same trichords form between viola/cello and piano/cello. The piano outlines [D2, A2, F3, G#3, C#4], which is a (01478) 5–22 pentachord. Ornstein transposes the upper (0148) 4–19 tetrachord, excluding the bass, by a descending whole-step: [A2, F3, G#3/G#4, C#4] to [G2, Eb3, F#3/F#4, B]. The pitch collections in this section do not connect with each other to form synthetic modes, but they do create cohesive

aural relationships. Despite the extended tertiary harmonic language and dissonant counterpoint, this section still has a characteristically Eastern European or Hebraic sound. As mentioned before in this dissertation, this kind of nuance and originality is why Ornstein's music cannot be pigeonholed as being Jewish, as opposed to a composer like Ernst Bloch.

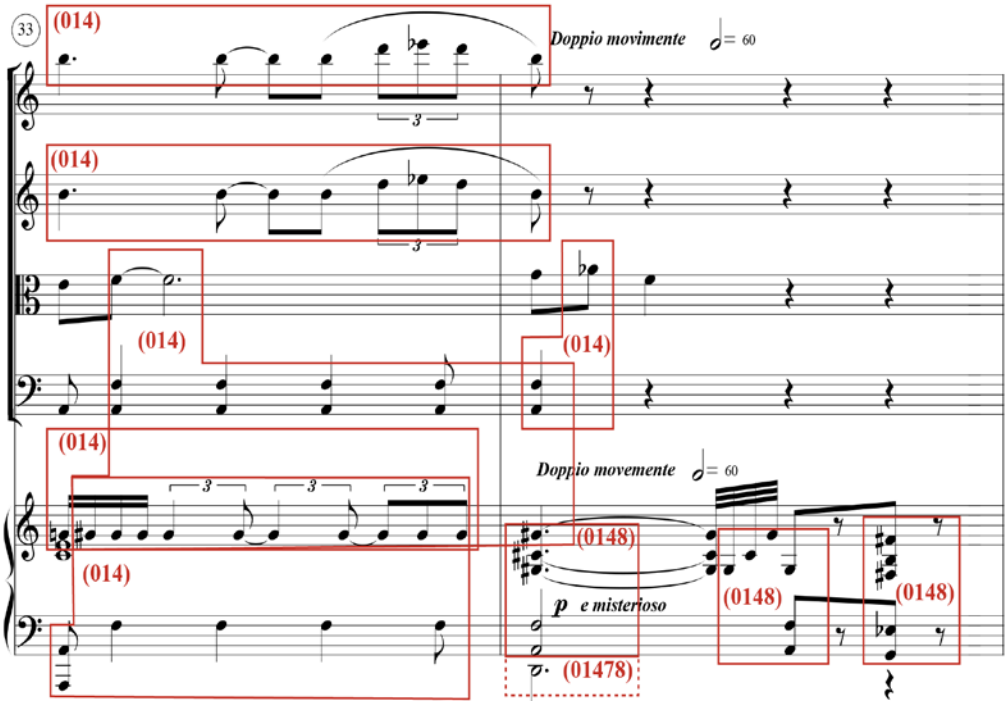

Figure 5.19: Second Movement from Piano Quintet S610, (014) sets, p.122/ m.1–2

Another example from the same work combines (014) trichords to form a hexatonic mode that encompasses the pitch space of all instruments at the same time. In the passage below (Figure 5.20), the piano outlines (014) trichords and (0145) tetrachords in prime form: [G#, A, C], [C, D#, E], and [D#, E, G, G#]. Hebraic trichord cell motifs are also formed in the cello/viola [B, C, G#] (m.1), violin 1 [G, G#, B] (m.2), and violin 2/viola [G, G#, E] (m.2). In the second measure, the right hand of the piano outlines one more (0145) tetrachord melodic cell in octaves: [C, D#, E, B]. Registral arrangement and orchestration of these pitch sets is ingenious. Ornstein doubles melodic cell trichords in all three octaves between violin 1/violin 2/viola, so that this motif is projected over the piano, which is outlining the same motif, in different transpositions.

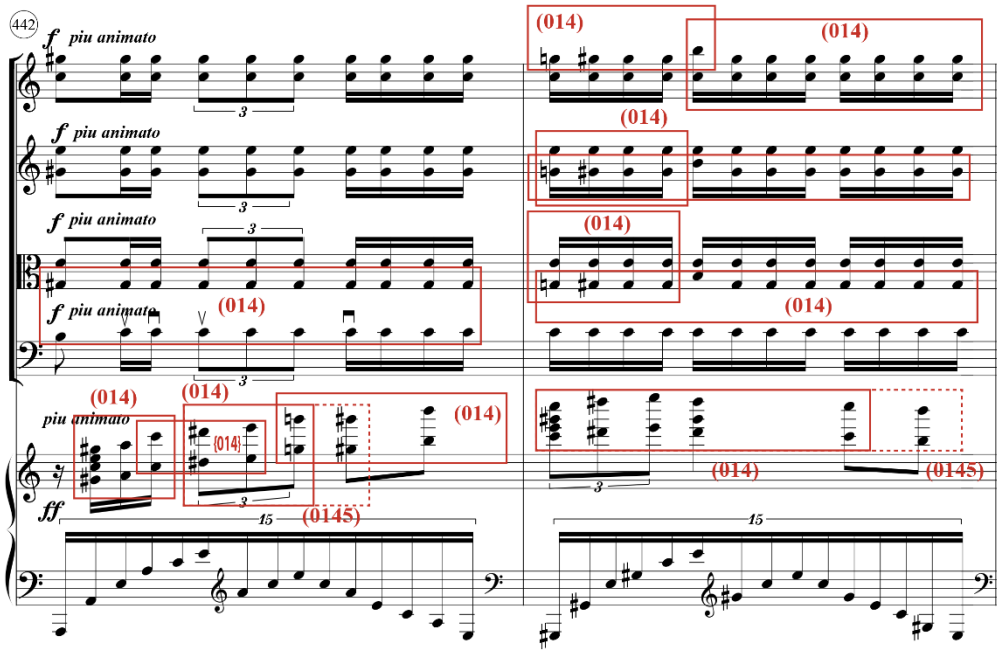

Figure 5.20: First Movement from Piano Quintet S610, (014) sets, p.104/ m.1–2

If one combines all the pitches from Figure 5.20, a hexatonic collection is revealed with the following whole step interval sequence: {½, 1 ½, 1 ½, ½, 1 ½}. This hybrid hexatonic scale starts from G# and forms a (012569) 6-z44 hexachord. As shown in Figure 5.21, this hexachord includes 4 (014) trichord subsets.

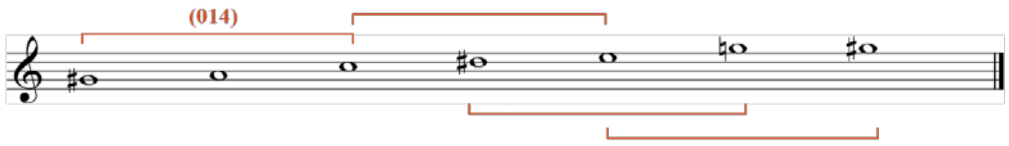

Figure 5.21: Hexatonic collection from Piano Quintet

Another example of a passage that superimposes (014) trichord sets, in order to form a hexatonic pitch space can be seen below. Violin 1/violin 2 and violin 2/cello play (014) melodic cells and harmonize with each other. Each instrument group outlines the following melodic trichord motifs: [D, F, F#], [Bb, C#, D], [F#, A, Bb]. The entrances are staggered and resemble call and

response. The piano is outlining a (0148) 4–19 tetrachord, or a D+^{maj7} harmony that is transposed in Bb (m.2) and finally in F# (m.3). Expressive anticipations in violin 1 are echoed by 8th-note triplet figures in the violin 2/cello. The dialogue between each instrument is similar to the call and response idea from Figure 5.19.

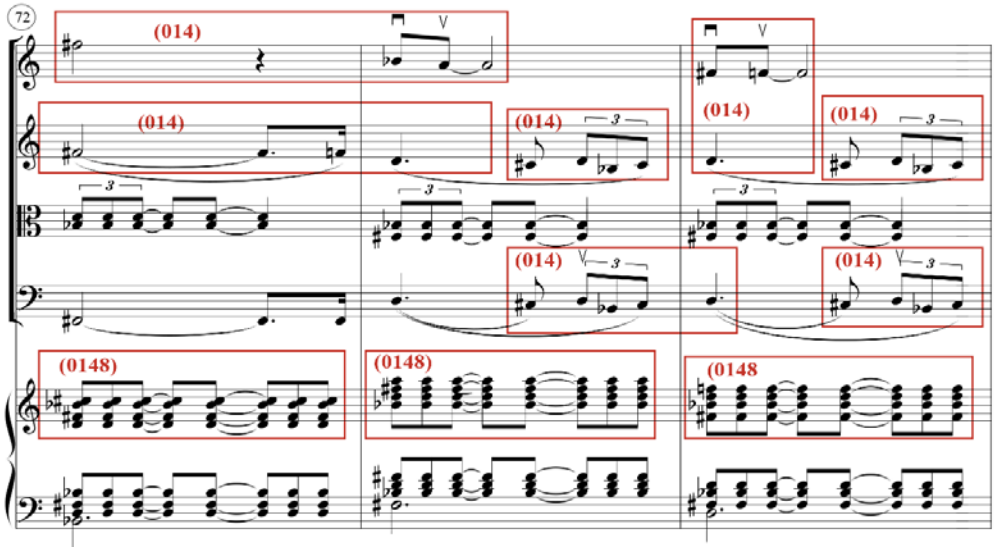

Figure 5.22: Second Movement from Piano Quintet S610, (014) sets in hexatonic collection, p.133/ m.4–6

All pitches in Figure 5.22 can be combined to form a hexatonic collection, based on a (014589) 6–20 hexachord. As shown below, there is a total of six (014) subsets in this collection. Ornstein chose very wisely to write this passage in this mode, because it has tremendous self-similarity and intervallic cohesion. This hexatonic collection is a truncation of Messiaen's third mode of limited transposition.[253]

Figure 5.23: Hexatonic collection from Piano Quintet

[253] Messiaen, Olivier. *The Technique of My Musical Language*. Translated by John Satterfield. Paris: Alphonse Leduc, 1956, 60-61.

4.8: *A Morning in the Woods S106* – Analysis

In 1971, after a long time away from composing, Ornstein started composing again. *A Morning in the Woods S106a* is one of his most popular lyrical works for the piano. The title suggests an inspiration from natural scenery. During my interview with Severo, I asked him whether Leo Ornstein was inspired by nature and he responded that: "He loved nature. He loved to be out in the woods. His studio was way up on a mountain side in New Hampshire."[254] On other occasions, Ornstein mentioned that he was obsessed with gardening, measuring his plants and even named his cabbages "Wild Men." He was fascinated with New England rural life.[255] As a touring pianist in 1910–1920, it was his dream to live a "perfectly quiet country life."[256] Before he started composing, he would wake up at 5 am to take a walk and "look at the sky."[257] In a way, this work signifies a new period of peace and balance in his life, which allowed him to compose again.

The score of *A Morning in the Woods* was originally transcribed by Severo Ornstein with the *Mockingbird* notation software (possibly revised with another notation software from the early 1990s) and published on his website. The score contains some errors, such as redundant accidentals.[258] Unfortunately, this is the only existing edition, as is the case with most of Ornstein's works. These are most likely Leo Ornstein's errors that were deliberately maintained by Severo in his transcriptions. [259]

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[254] See Chapter 5.5 – "Personality" (Interview with Severo Ornstein)
[255] Von Glahn and Broyles, "Musical Modernism Before It Began: Leo Ornstein and a Case for Revisionist History," 188.
[256] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 26.
[257] Ibid.
[258] Also, there is a confusing use of two accidental notation systems: one present in standard notation and another restating accidental every time within a bar.
[259] Severo was very clear to me that he never changed notes and dynamic markings, except if he had his father's permission or if someone convinced him about an alternative solution. He is very open to suggestions about possible errors. I suggested some changes in Joy from Three Moods and he was very eager to consider my reasoning after careful inquiry and evaluation with the original.

The harmonic language is very rich and incorporates diatonicism, interval-based modality, and chromaticism. Ornstein incorporates the (014) 3–3 and (0145) 4–7 Hebraic melodic cells in several themes. As opposed to his experimental works, there is a complete absence of tone clusters and percussive elements. Surprisingly, the meter remains in 6/8 for the entirety of the work, with the exception of 4 measures.

In terms of motivic development, this work is a great example of how Ornstein combines turn, anticipation, leap, Hebraic trichord cells and codetta motifs all in one. The form of this work is totally rhapsodic and does not follow a macroscale scheme, other than a short exposition and recapitulation. As shown in *Figure 5.1*, short phrases and melodic cells are developed at a micro-level to form longer sections, very similar to Eastern European and Hebraic folk music. Understanding the way short motivic themes are interconnected reveals a linear development of material that resembles thematic improvisation.

Figure 5.24 includes an extensive motivic analysis. As shown below, the form is the following: Exposition (A: p.1/ m.1, B: p.1/ m.7), C (p.2/ m.2), D (p.3/ m.1), E (p. 4/ m.4), B' (p.5/ m.5), F (p.6/ m.1), G (G1: p.7/ m.1, G2: p.8/ m.1), Recapitulation (A: p. 9/ m.1, B: p.10/ m.3), B'/Coda (p.11/ m.1).

The numbers of measures in each major section follow an isomorphic regularity: 11, 4, 11, 8, 4, 8, 16 (8+8), 11, 8. Despite Ornstein's rhapsodic thematic development, there seems to be an underlying scheme of section durations in groups of 3: (11, 4, 11), (8, 4, 8), 8, (8, 11, 8). Each section group is followed by significant contrasts in texture, harmony, and dynamics.

Melodic motifs are labeled by small letters corresponding to the section they appear, i.e.: if a motif appears in section *A*, it is named *a*, etc. If *a* is altered it will be labeled as *a'*. Finally, if a measure superimposes two motifs at the same time, they will be labeled with a slash, i.e.: *a2/b2*.

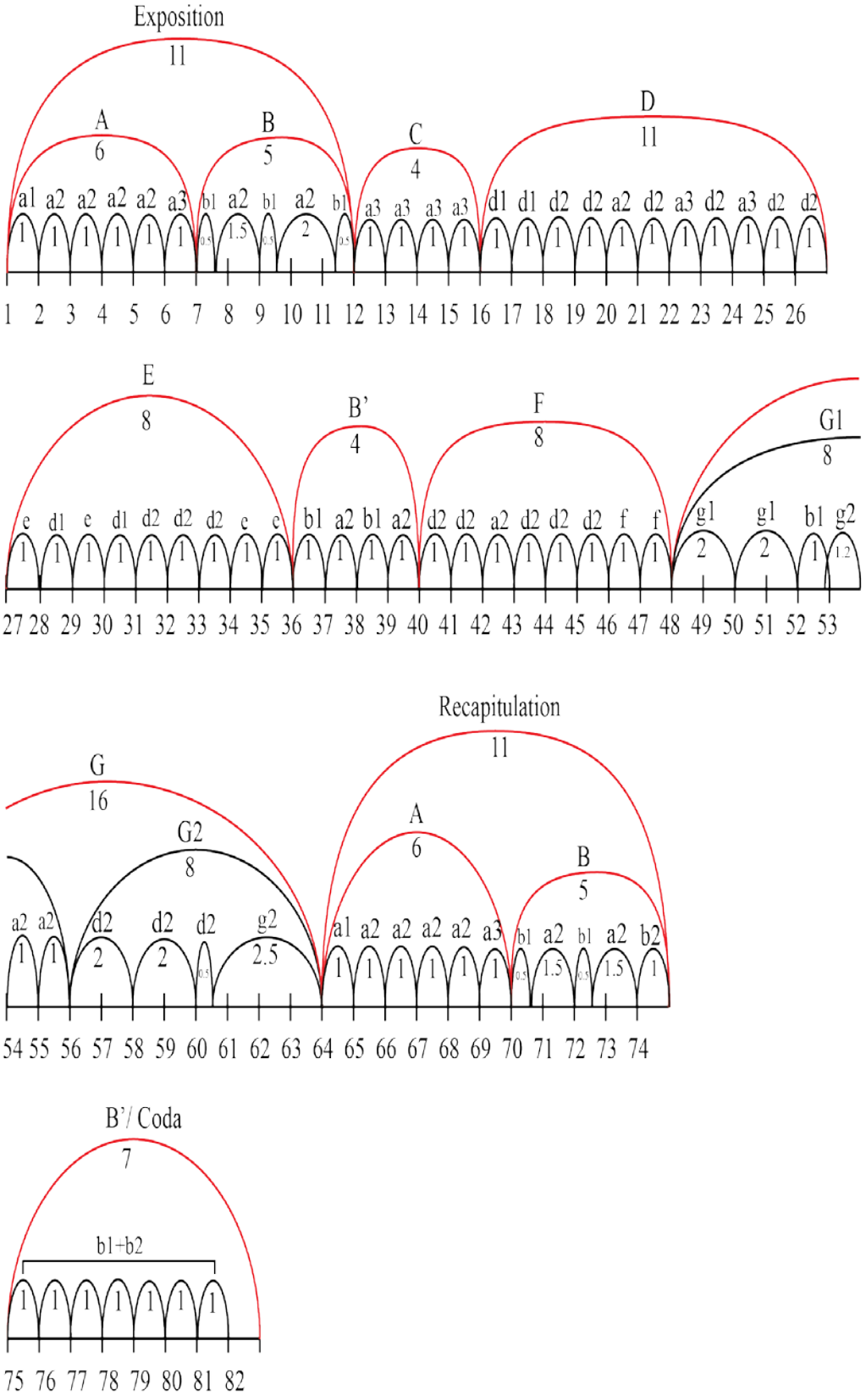

Figure 5.24: A Morning in the Woods – Arc Diagram

Section *A* unfolds in a diatonic pitch space of Bb Aeolian, implied by the key signature. Harmonies are based on quartal voicings and evoke a feeling of content, peace, but also uncertainty. The first four measures in Figure 5.25 consist of turn motifs that outline the following chords: $Ab^{6/9}$/Gb, $Dbmaj^{9}$/C, $Gbmaj^{7sus2}$, $Dbmaj^{9}$/C, Ab^{sus2}, $Gbmaj^{7\#11}$/F, Ab^{sus2}, and $Gbmaj^{7\#11}$.

As shown in the Figure below, phrase *a1* includes turn motifs similar to the ones discussed in Chapter 4.3. The first three turn motifs (m.1–2) have identical c-segs: CAS <+, +, +, -> and CC <0-1-2-3-2>. These kind of turn motifs are present throughout Ornstein's oeuvre, an example of this was shown in *A Reverie S150* (Figure 5.5).

Phrase *a2* expands the turn motif with wider intervals. In the third measure, the turn motif in red has CAS <+, -, -, -, +> and CC <2-3-2-1-0-1>. If we exclude the first note, the resulting cseg is an inversion of the turn motif *a1* in m.1–2, CAS <-, -, -, +>, which is similar to motifs from *Solitude S116* (Figure 5.1). The wide interval turn motifs in green are also based on phrase *a*, with wider intervals. They have a CAS <+, -, -, +, +, +, -> and a CC <2-3-2-0-1-3-5-4>. The first four notes are a retrograde inversion of phrase *a1* c-seg <+, -, ->, and the last five notes are identical to phrase *a1* c-seg <+, +, +, ->. This is insightful, because it reveals that Ornstein uses general melodic shapes as ideas and varies them by mutating their intervallic structure.

Another feature of phrase *a2* is rhythmic diminution of the turn motifs. In m.2–4 (Figure 5.23), each measure contains two turn motifs (red and green) that first appear in quintuplets and then septuplets. The green motifs are transformed from septuplets to nonuplets. Here, the rhythmic density of every second beat, i.e., the number of notes within the second dotted 8^{th}-note of each measure, is gradually increased. Furthermore, the green turn motif's overall note density is increased, whereas its total duration of one 8^{th}-note remains the same.

This beautiful opening should be played with a light singing tone. A way to create variety when performing this opening is to play *leggiero* when turn motifs have wide intervals (phrase *a1*, phrase *a2*- green), and bring out more

of the turn motifs with adjacent intervals (phrase *a2*- red), because their melodic contour is more lyrical.

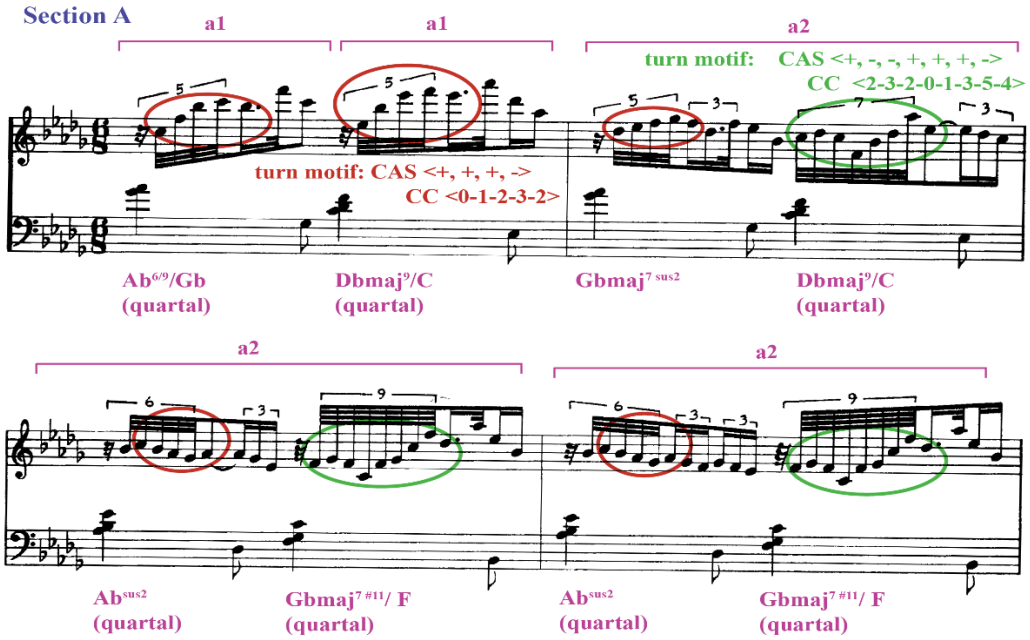

Figure 5.25: A Morning in the Woods – Section A, p.1/ m.1–4

Section *B* begins in p.1/ m.7 (Figure 5.26) and introduces an anticipation motif similar to the motifs discussed in Chapter 4.4, in fact its c-seg is identical to the anticipation motif from Piano Quintet (Figure 5.6). This will become a central element that will drive the piece forward and impart it with a lyrical character. Ornstein transforms the *a2* turn motifs from Section *A*, by increasing the tuplet ratios and, as a result, the rhythmic density. The 4 turn motifs from p.1/ m.9–11 (Figure 5.26– in red) have the following c-segs:

1) CAS <+, -, -, -, -, +> CC <3-4-3-2-1-0-1>
2) CAS <+, +, +, +, -> CC <0-1-2-3-4-3>
3) CAS <-, -, +, +, +, +, -> CC <2-1-0-1-2-3-4-3>
4) CAS <-, -, +, +, +, +, -> CC <2-1-0-1-2-3-4-3>

All these motifs share a common 5-note ending. Turn motif no.2, 3, and 4 have the same subset tail end, <+, -, -, ->, which is identical to phrase *a1*.

The tail end of turn motif no.1 is an inversion of this 5-note subset, <-, -, -, +>. At the same time, motifs no. 3–4, have identical c-segs to the green turn motifs from Figure 5.25, there is only a minor alteration in the contour, as the first pitch moves downwards instead of upwards. The section ends with a leap motif (in purple), which first appears in p.1/ m.6. The c-seg of this motif is CAS <-, +, -> and CC <1-0-2-1>, which is identical to the leap motifs from Sonata No.4, discussed in Chapter 4.5 (Figure 5.14, second leap motif in purple).

Harmonically, Section *B* is in Bb Aeolian and briefly moves to octatonic OCT (0,2) in p.2/ m.1. The bass outlines minor-7th dyads that continue into Section *C*. The interpretation of this section can be *cantabile* with a ringing tone of the right hand that can be especially effective in this register.

Section *C* modulates to Eb Freygish (Phrygian-dominant), a mode inflecting bittersweet major–3rd and minor–6th intervals, which create a noticeable change in emotional affect. Hebraic (014) motivic cells are generated as a result of using this mode (in blue). Ornstein recycles quartal harmonies from the opening, but instead of using them diatonically as chords he utilizes perfect 4^{ths} and tritones in fast right–hand arpeggios. These quartal harmonies create (016) 3–5 trichord cells (Figure 5.26, m.5).

The same exact process is repeated on p.2/ m.5 (not in graph). The bass harmony moves from A7 to C7, while octatonic pitch space is being shifted to OCT (0,1). In the following measures, (016)-based arpeggios and leap motif melodies from Figure 5.26, m.5 are transposed up by a minor 3rd.

Leap motif *a3* first appears as Section B is closing with a c-seg CAS <-, +, -> and CC <1-0-2-1>. All leap motifs below (Figure 5.26, m. 3-5) have identical c-segs and undergo a process of melodic expansion by widening ascending intervals from a major 3rd (Figure 5.26, m.3), to a perfect 5th (m.4), and finally to an augmented 4th (m.5).

Figure 5.26: A Morning in the Woods – Section A and C, p.1/ m.9–p.2/ m.3

Section *D* begins in p.3/ m.1 with an appassionato gesture outlining an Emin^{maj7} harmony, the left hand is playing in triplet 16th notes while the right hand is arpeggiating and outlining a new lyrical motif (*d1* in arc diagram, Figure 5.24). The tumultuous nature of Section *D* brings to mind the pianistic idiom in works by Rachmaninoff and Scriabin.

In Figure 5.27, motif *d2* is shown. This anticipation motif is similar to motifs from Piano Quintet S610 (Figure 5.6). As the melody progresses, Ornstein expands and varies its contour. In the graph below, the first three measures occur in an octatonic pitch space based on collection OCT (0,1). The harmony outlines tertian harmonies that derive from this octatonic mode. There is an abundance of major–sharp–11 chords in first inversion: $C^{\#11}$/E– $Eb^{7\#11}$/G (m.1–2), $C^{7b9\#11}$ (m.3). In m.4, all this dissonance is resolved beautifully in E^{9}. In Figure 5.27, m.4 the hectic octatonic harmonies are resolved to the warmer mode of E major-minor. The middle voice in the right hand colors this lush sonority by emphasizing D4 and C4. The yearning atmosphere of this particular mode resembles Ladino and Spanish musical practices.

The c-seg analysis of this section reveals how anticipation motifs are interconnected. The anticipation motifs in red (Figure 5.27) are analyzed in the graph below:

a. CAS <-, =, +> CC <1-0-0-1>
b. CAS <=, -, =, +> CC <1-1-0-0-1>
c. CAS <+, =, +> CC <0-1-1-2>
d. CAS <-, =, -> CC <2-1-1-0>
e. CAS <-, =, => CC <1-0-0>

The listed c-segs are related as follows: 1) *a* and *e* are subsets of *b*, and 2) *c* and *d* are related by inversion. Originally, the anticipation motif from phrase *d2* is on the beat, but as it transforms by operations that affect contour and duration it becomes more syncopated. Sometimes it is played after the beat (b, c, e) and sometimes before (d). The rhythmic duration of anticipation motifs shrinks and expands as follows: a > b > c < d > e.

In terms of pitch content, the right hand is outlining (0148) tetrachords that are subsets of the Hebraic (014) trichord. In p.3/ m.5, if we combine the alto melody and chordal accompaniment in the top staff, the following tetrachords are formed: [C5, C#5, E5, G#5], [A4, Bb4, C#5, E5], and [F#4, G4, A#4, C#5]. All these tetrachords are (0148) 4-18 in prime form.

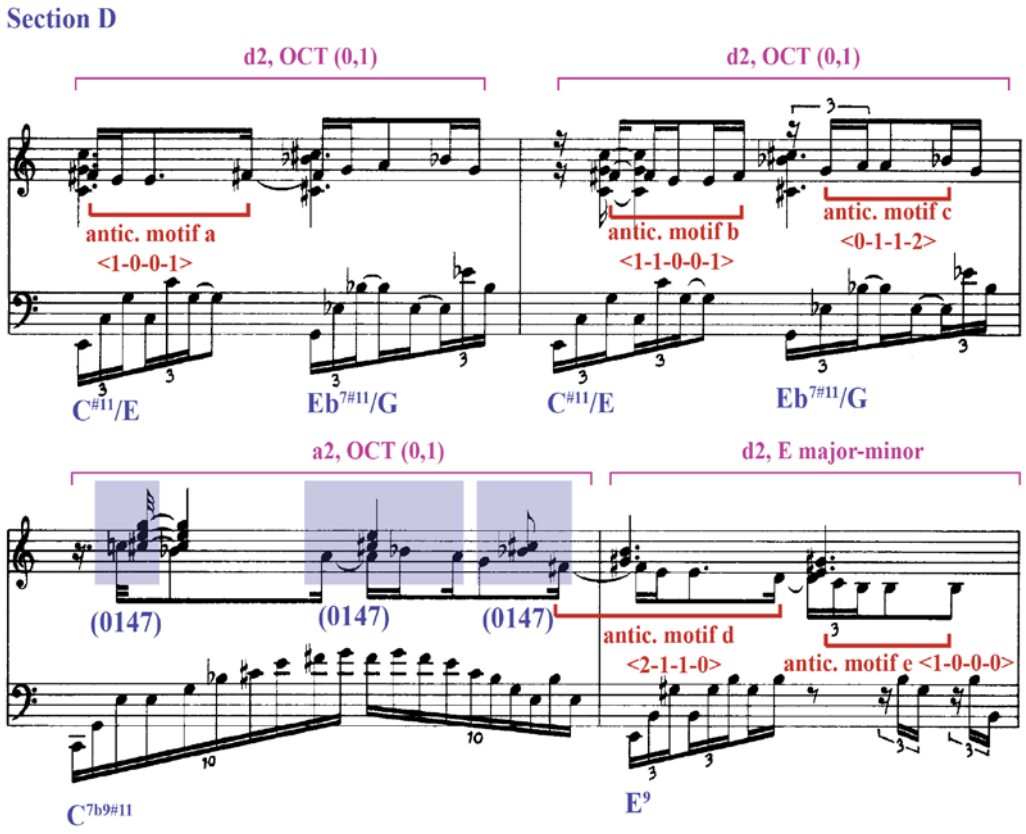

Figure 5.27: A Morning in the Woods – Section D, p.3/ m.3–6

Section *D* further develops anticipation and leap motifs. Figure 5.28, demonstrates how these melodic motifs are distributed in each phrase. Phrase *a3* has a particularly interesting harmony, where the left hand outlines $C^{maj7b9\#11}$ arpeggios, while the right hand is playing ascending quartal arpeggios. The quartal sonority derives from a C# quartal cycle: [C#, F#, B, E]. The clash between C# quartal tetrachords against a C2 bass is subtle, because of the open voicing and harmonic resemblance to the OCT (0,1) collection, that was used earlier in Section *D*. The aforementioned octatonic mode is utilized in the last two measures of this section, while the harmony moves from $Gmin^{maj7}$ to $Gmin^{maj7\#11}$ and finally to C^{7b9}.

The motifs in Figure 5.28 have the following c-segs:

1. Leap motif (in red, m.1): CAS <+, -, +, -> CC <0-1-0-2-1>
2. Anticipation motif (in red, m.2): CAS <-, =, -, =, -> CC <3-2-2-1-1-0>
3. Anticipation motif (in red, m.3): CAS <-, =, -, =, -> CC <3-2-2-1-1-0>

The leap motif has an identical c-seg to p.2/ m.3 (Figure 5.26) and the anticipation motif derives from p.3/ m.6 (Figure 5.27, antic. motif *d*). It expands the CC <2-1-1-0> with an added anticipation <3-2-2-1-1-0>. In measure 2 below, (016) 3–5 trichord cells are brought back from Section *C* (Figure 5.24 m.5) in quartal spacing.

The multiplicity of polyrhythms in the arpeggios of Section *D* can seem daunting to a pianist tackling *A Morning in the Woods* for the first time. Practicing these passages requires a slow, methodical approach, in order to ascertain how all these simultaneous rhythms are combined. In the passage below, it is easier to feel the 8th-note beat of the right-hand arpeggios, and then to combine the left hand in relation to this steady beat. If one tries to feel the left hand polyrhythmic tuplets, it will be much harder to play accurately, because there are irregular rhythmic groupings that go against the 6/8 meter.

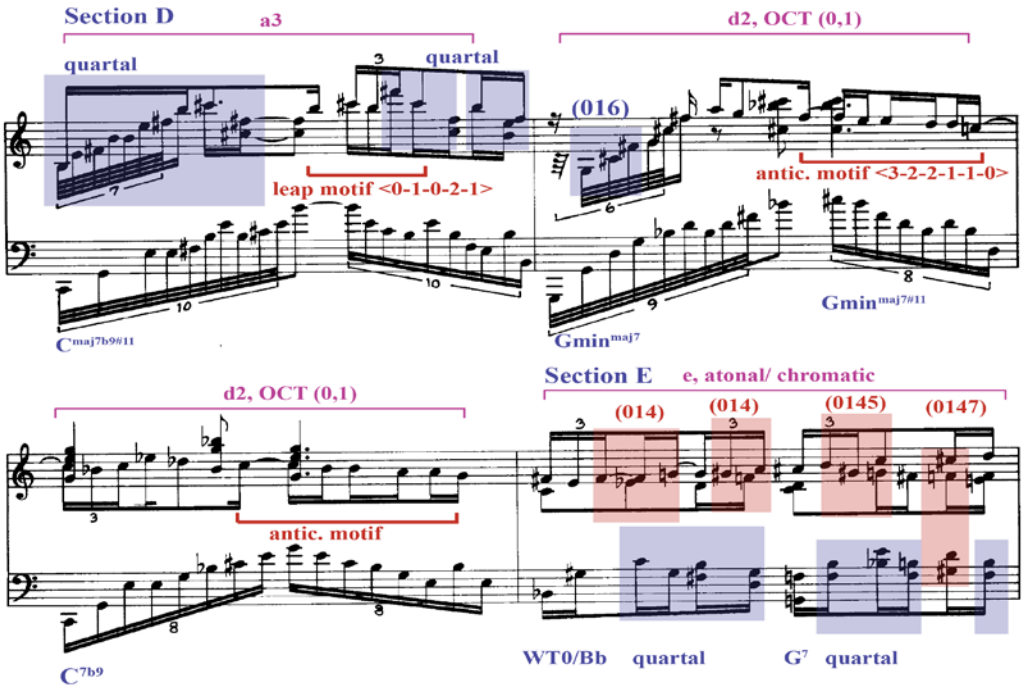

Figure 5.28: A Morning in the Woods – Section D, p.4/ m.1–4

Section *E* is completely atonal, based on (014) sets and subsets. In Figure 5.28 above, the right hand is split into two voices that wedge outwards:

the upper ascends chromatically, while the lower moves in minor 3rds and contrary motion. Both voices combine to create Hebraic (014) trichords and (0145) tetrachords. Ornstein also uses (0147) tetrachord sets, which derive from p.3/ m.3 (Figure 5.27). The first 8th-note of the *D* section contains harmonies from the whole tone collection WT0. The left hand consists of quartal-based chords with both perfect and augmented 4ths. Similarly to Section *B*, the spacing of the bass dyads is usually a minor 7th.

Section *E* evokes a completely new mysterious and psychedelic mood. It sounds like a combination between Ornstein's experimental style and late romanticism (i.e.: Strauss, Scriabin, and Szymanowski). This section is probably the main reason why many pianists feel bewildered performing *A Morning in the Woods.* In fact, I have been approached by pianists on my Youtube channel, where I have uploaded this work,[260] asking me how to memorize and perform Section *E.* Perhaps the most technically challenging aspect of this passage is maintaining a *cantabile* melody on top, while performing the complex accompaniment *a tempo*. This can be done by employing smart fingerings, where the chromatically ascending top voice is fingered with 3-4-5, while the inner alto voice is performed with 1-2. This is a well-known piano technique, explored extensively by Chopin in his Etude Op.10 No.2. As shown below, the right hand has to build an independence of fingers 1-2 and 3-4-5, in order to play the upper voice melody *legato* and the alto voice dyads *staccato*. Mastering this Étude will prepare the pianist technically for interpreting Section *E* from Figure 5.28 with clarity and ease.

Figure 5.29: Chopin Etude Op.10 No.2

[260] Andreas Foivos Apostolou, "Leo Ornstein- Morning in the Woods," Foivosapostolou, 2015, https://www.youtube.com/watch?v=EcKVav7rIzk.

Section *E* further develops (014)-based sets in p.5/ m.1–4. As shown in Figure 5.30, the right-hand octaves outline a rising (0145) 4–7 tetrachord melody that leads to anticipation motifs. The motifs shown below have the following c-segs:

1. m.1: CAS <-, =, -> CC <2-1-1-0>
2. m.2: CAS <+, =, +> CC <0-1-1-2>

Both motifs are related by inversion and they derive from Section *D* phrase *d2* (p.3/ m.4, 6 – Figure 5.27*).* In Figure 5.30 m.1, the left hand outlines a $D^{6/9}$ chord, and for the rest of the *D* section, the bass outlines primarily minor-7^{th} and augmented-4^{th} dyads in combination with (014) trichords. Ornstein uses the Hebraic trichord both as a harmonic and melodic cell. In Figure 5.30-phrase *e*, the right hand derives from p. 4/ m.4 and features two-voice counterpoint made up of ascending (014) trichord and (0145) tetrachord motivic cell sequences that wedge out in contrary motion. In p.5/ m.2 the first beat is in the whole tone collection WT0. The melodic line peaks in p.5/ m.4, in the 9/8, where a short phrase loops every dotted quarter note, while combining two interwoven (014) trichords. The bass line moves in minor 3^{rds}, and then augmented 4^{ths}, while outlining an isomorphic shape. In Figure 5.30 m.2 beat 2, the left hand has the following c-seg: CAS (+, +, -, +, -). Measures 3–4 maintain the same melodic contour in the left hand following the regularity of the 6/8 and 9/8 beat. There is also an abundance of minor-7^{th} dyads in the bass.

Section *B* returns in p.5/ m.5, where the right hand outlines the anticipation motif *b1*. This time the motif projects pain and regret. It emphasizes pitches, such as C5, F#5, and D#5, that clash with the E minor bass triad. The quartal voicing of the (0147) tetrachord, [G4, C5, F#5, D#5], is combined with another (0147) tetrachord transposition in the middle staff, played by the left hand, [G3/G4, B3, E4, Bb4]. Beat 2 of Figure 5.30 m. 5, combines a $Bb^{ø7}$ tetrachord in the bass and a turn motif in the right hand. Both hands use pitches that are in the F# acoustic scale [F#, G#, A#/Bb, B#/C, C#, D#, E]. The middle staff second chord is a (0148) tetrachord in prime form and is also included in the F# acoustic scale (Lydian-Mixolydian). As the bass motion moves in augmented

4ths from Emin to Bbø7 the turn motif is developed even further in m.6 (Figure 5.30). This phrase derives from Section *A* (Figure 5.25 phrase *a2*), but is now distorted with (014) melodic cell sequences. In m.6/ beat 2, the nonuplet 32nd-note figure in the right hand is particularly difficult to perform, but becomes easier if fingered as follows: 1+2, 3, 2, 1, 2, 3, 1, 2, 5, 1+3. This impressive ascending turn motif lands on a perfect-5th dyad and is immediately followed by two notes that combine to form a (0147) 4–7 tetrachord.

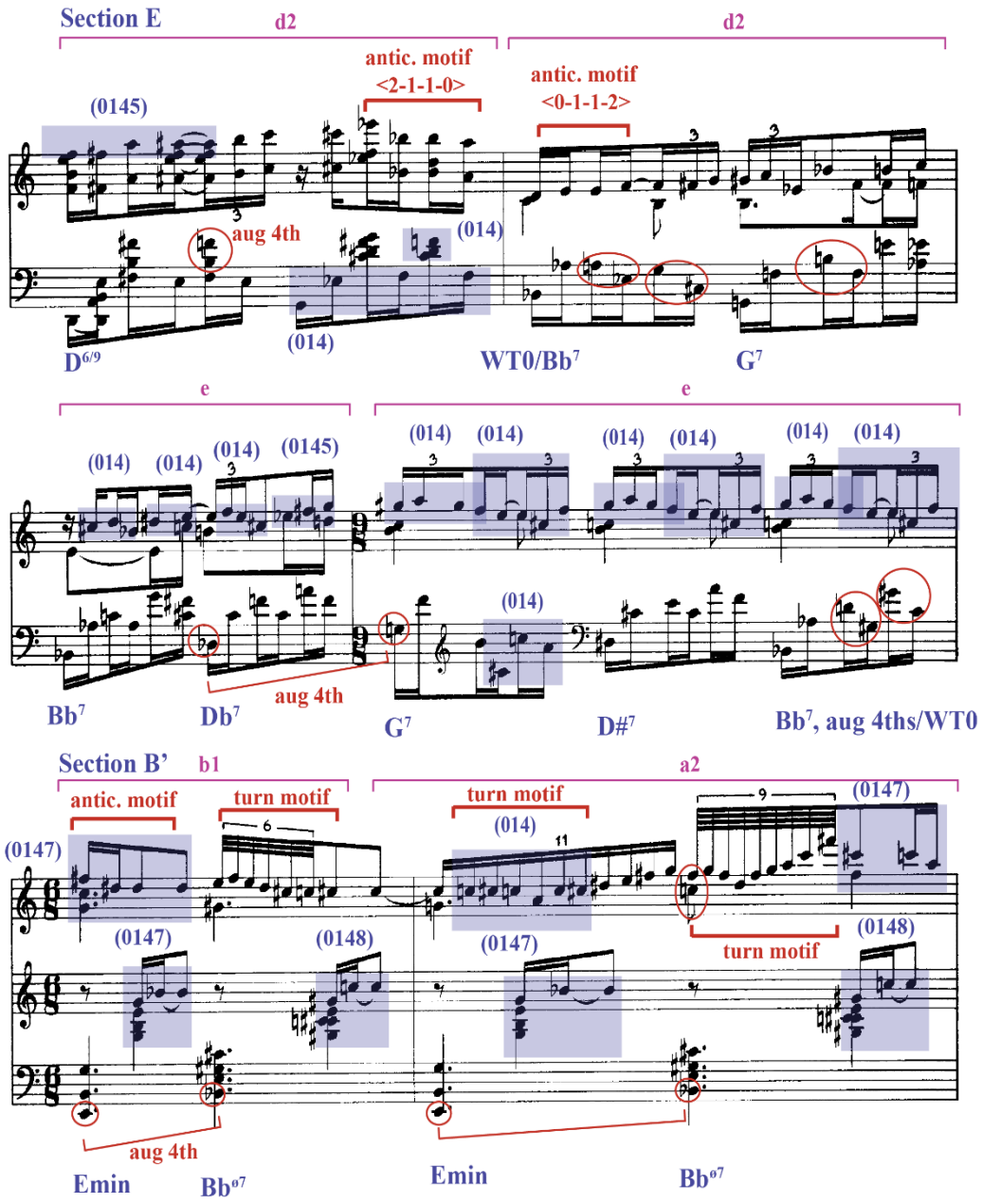

Figure 5.30: A Morning in the Woods – Section E and B', p.5/ m.1–6

Section *B'* should be interpreted with an intention to bring out each layer in a balanced way, especially the expressive soprano melody outlining anticipation and turn motifs. The middle staff echoes the anticipation motif of the right hand and should be performed lightly with a singing top voice. Furthermore, the bass notes should be voiced with the left-hand little finger (pinky), in order to highlight the important augmented 4th ascending motion.

Section *F* begins in p.6/ m.1 and features anticipation and turn motifs. The motifs in Figure 5.31 have the following c-segs:

1. CAS <+, =, => CC <0-1-1-1>
2. CAS <-, -, +> CC <2-1-0-1>
3. CAS <+, =, +, =, +> CC <0-1-1-2-2-3>
4. CAS <-, =, -, =, -> CC <3-2-2-1-1-0>
5. CAS <+, -, -, +> CC <1-2-1-0-1>
6. CAS <=, +, =, +> CC <0-0-1-1-2>
7. CAS <-, =, -, =, -> CC <3-2-2-1-1-0>

C-seg *1* is an anticipation motif identical to motifs from phrase *a2* (Figure 5.25) and phrase *d2*, which also includes major-2nd dyads (Figure 5.27). C-seg *2* is a turn motif that derives from phrase *a2*. C-seg *3* is an anticipation motif that is an inversion of motif *d2* <3-2-2-1-1-0> from Section *D* (Figure 5.28). C-seg *4* is an inversion of C-seg *3* and identical to motif *d2*. C-seg *5* is a superset of c-seg *2* and includes <2-1-0-1> as a subset that derives from Section *A*. C-seg *6* is identical to C-seg *3*, excluding the first pitch. Finally, C-seg *7* is identical to c-seg *4* and motif *d2*.

Motif *d2* in Figure 5.29 is unfolded as a whole-tone WT0 collection that is harmonized with a A#min^{7} chord in the bass. This is followed by the turn motif in OCT (0,1) and harmonized with a C#+^{maj7}/D# chord. In m.3, the ascending 16th-note anticipation motif *3* in the right had leads to a (0147) 4–7 tetrachordal harmony that is immediately mirrored by its melodic contour inversion (motif *4* in graph below), which is made up of Hebraic (014) 3–3 motivic cells that are all included in the octatonic mode OCT (0,1). M.3 contains

a right-hand turn motif that is in whole tone collection WT0. As shown in Figure 5.3–m.3, turn motif *5* is superseded by a (0145) 4–7 harmonic cell in the right hand, while the left hand outlines $G^{ø7}$ and $Bb^{ø711}$ chords. The last measure from the excerpt below is based on an Eb^{7b9} chord and quartal sonorities. In fact, the last beat contains pitches that are included in the perfect-4th cycle: [G, C, F, Bb, Eb, Ab].

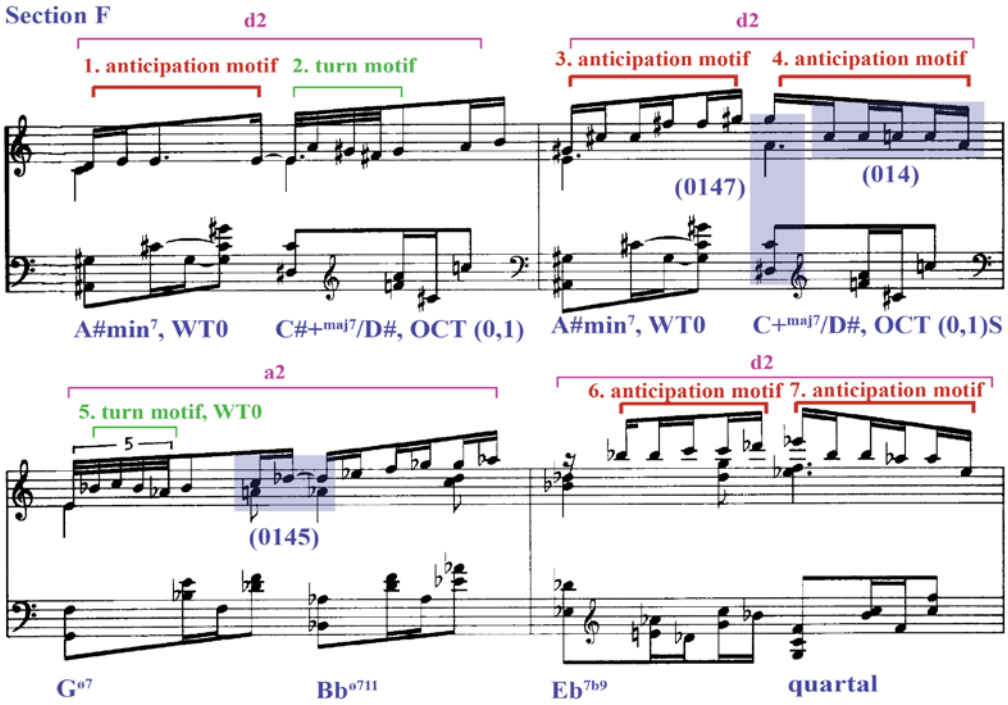

Figure 5.31: A Morning in the Woods – Section F, p.6/ m.1–4

A very lyrical and even sensual section begins in p.7/ m.1 (Section *G1*, Arc Diagram Figure 5.24). The harmonic progression begins with modal mixture in the key of F minor. Ornstein introduces a new melody which is rich in minor-3rd intervals. Prior to settling in F minor, the harmony moves from the parallel major tonic to the minor subdominant. The phrasing of the *cantabile* melody has a regular 2-bar phrasing and every time the bass moves from F3 to Bb3, the composer harmonizes it differently. It is interesting to see, not only how Ornstein varies this tonic- subdominant bass motion, but also how the music

smoothly transitions, as section *F* is coming to an end, from the key of Db Lydian into F minor. The following list shows the chord progressions per 2-measure phrases:

1) Cmin^{7b911}/G- Eb^{9}/Bb- Db^{9}- Eb^{7} (p.6/ m.7-8, Figure 5.32)
2) F^{7}- Bbmin/Db (p.7/ m.1-2, Figure 5.32)
3) Fmin- Bbmin/Db (p.7/ m.2-3, Figure 5.32)
4) Fminor- Bb^{7} (p.7/ m.4-5, Figure 5.33)
5) Db$^{\#6}$- Fmin (p.7/ m.6-5, Figure 5.33)

In the graph below, quartal harmonies in Db Lydian and cross rhythms create a transparency of texture. This is followed by a modal progression in F minor (Figure 5.30, m.2): ^{b}VI- ^{b}VII- I. As the section comes to a close, a nostalgic motif appears in the right hand, it consists of 3rd intervals and has the following c-seg: CC <-, -, +>. The melodic contour moves down two times and then up one time. The contour and intervallic structure of this motif is used in the main motif of Section *G*. In m.3–4, the closing motif is inverted: CC <+, +, ->. The intervallic structure is based on 3^{rds} perfect 5^{rds}.

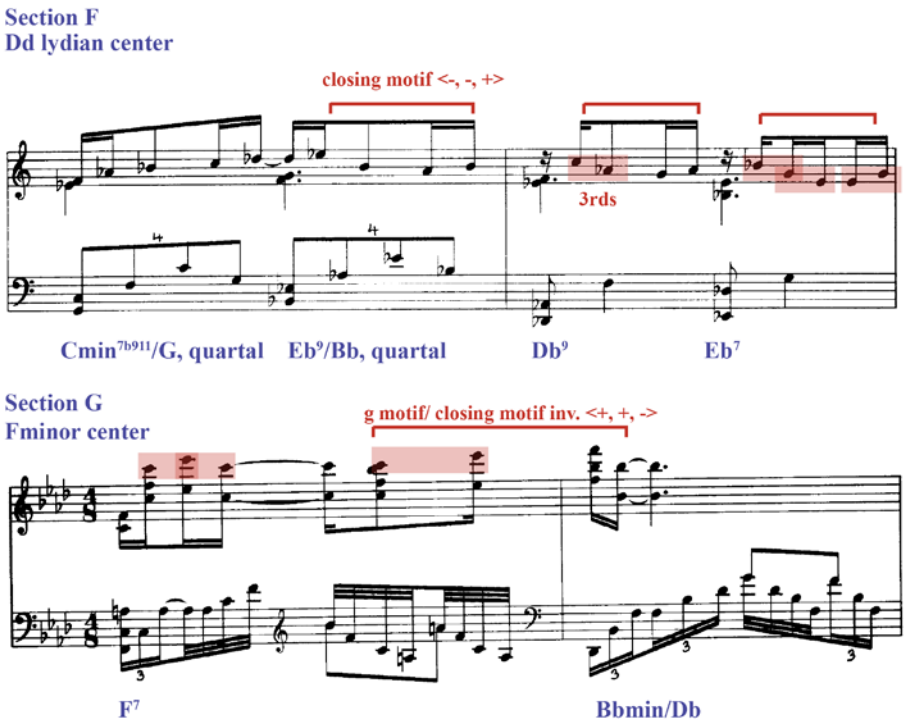

Figure 5.32: A Morning in the Woods – Section F and G1, p.6/ m.7–p.7/ m.2

The way Ornstein uses modal mixture in section *G* is quite masterful. The move from a F^7 dominant chord to a Bb minor chord, creates the illusion of a Bb minor key center. As the progression continues it becomes clear that there is an interplay between parallel keys of F minor and F major. In Figure 5.33, the harmony moves to Bb major and back to F minor, and a few bars later a German 6^{th} chord ($Db^{\#6}$, p.7/ m.6) is also used as a transition back to F minor. In Figure 5.33, the anticipation motif *b1* returns in the right hand, while the left hand outlines motif *g* in the tenor voice. This countermelody is accompanied by ascending and descending arpeggios of varying rhythmic rates. A new turn motif appearing in the right hand below, *g2*, will be further developed in the following measures.

Performing Section *G1* is very rewarding for both pianist and listener. Each voice has a distinct character and very intentional registral distribution. The superb idiomatic writing renders this virtuosic passage easily sight readable. A beautiful duet between the right-hand octaves and left-hand thumb in the tenor elevates this section into orchestral music. Despite its simplicity, this passage is loaded with a passionate feeling. In my interview with Sarah Cahill, we discussed about how the lack of dynamics can be liberating.[261] A passage like this can be just as effective if performed simply without any dramatic excitement. I personally hear it as a gradual build-up to Section *G2*.

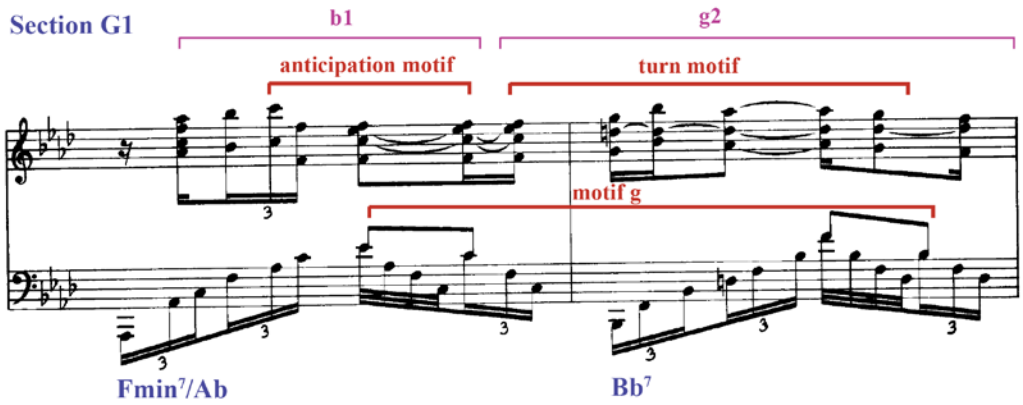

Figure 5.33: A Morning in the Woods – Section G1, p.7/ m.4–5

[261] Please see Appendix A

In the middle of this lush F minor world, a new dramatic section (Section *G2*, Arc Diagram Figure 5.24) propels the music forward. Rapid triplet 16th-note and 32nd-note arpeggios take over in the left hand outlining D^{o7} (m.1), $Db^{\#6}$ (m.1) and $Fmin^{maj79}$ (m.2) harmonies. Fierce anticipation motifs in the right hand are chained together in sequence with 16th-note octaves. The anticipation motifs outline series of harmonic and non-harmonic chromatic tones that, when each 2-bar phrase ends, resolve in consonant triads.

In terms of performance, an increase of rhythmic activity in the music can be followed by a fierce Rachmaninoff-esque touch. *Accelerando*, pedaling and voicing of the bass are vital in setting up a stormy tempestuous atmosphere.

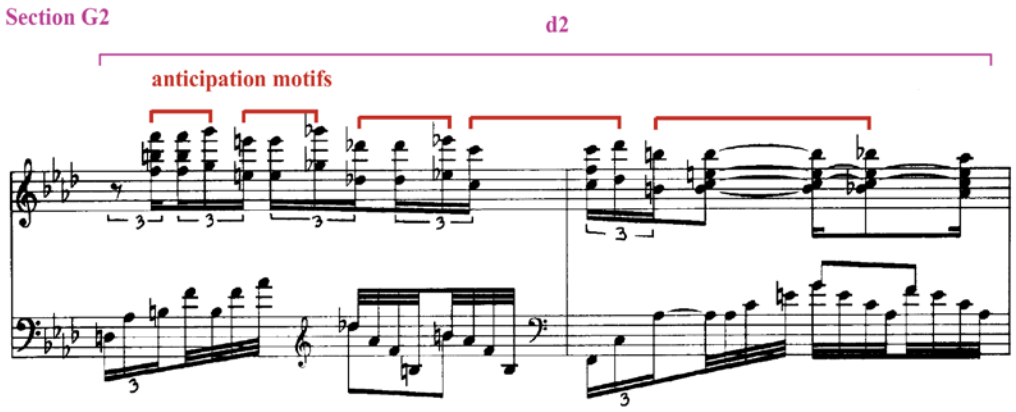

Figure 5.34: A Morning in the Woods – Section G2, p.8/ m.1–2

As section *G2* progresses, the repeated chromatic alteration of E-natural in the right-hand 16th-note triplet octaves is harmonized with $Db^{7\#9}$ arpeggios in the left hand (Figure 5.25). After a series of descending anticipation motifs, the *g2* phrase returns from p.7/ m.4–5 (Figure 5.33). In the graph below, motif *g2* is played by the right hand and harmonized with a simple left-hand F minor arpeggio, leading to $Db^{7\#9}$, and finally to $G^{ø7}$. In p.8/ m.7– p.9/ m.1, the lowest fundamental pitches in each ascending arpeggio of the left hand are gradually rising by 3rds. The ascending motion builds up intensity and leads to the recapitulation of Section *A* in p.9/ m.1, which elegantly resolves back to the

key of F. The omission of a minor 3rd and open spaced quintal chord harmonization is particularly interesting. During this entire work Ornstein avoids harmonic clichés and predictable chordal voicings.

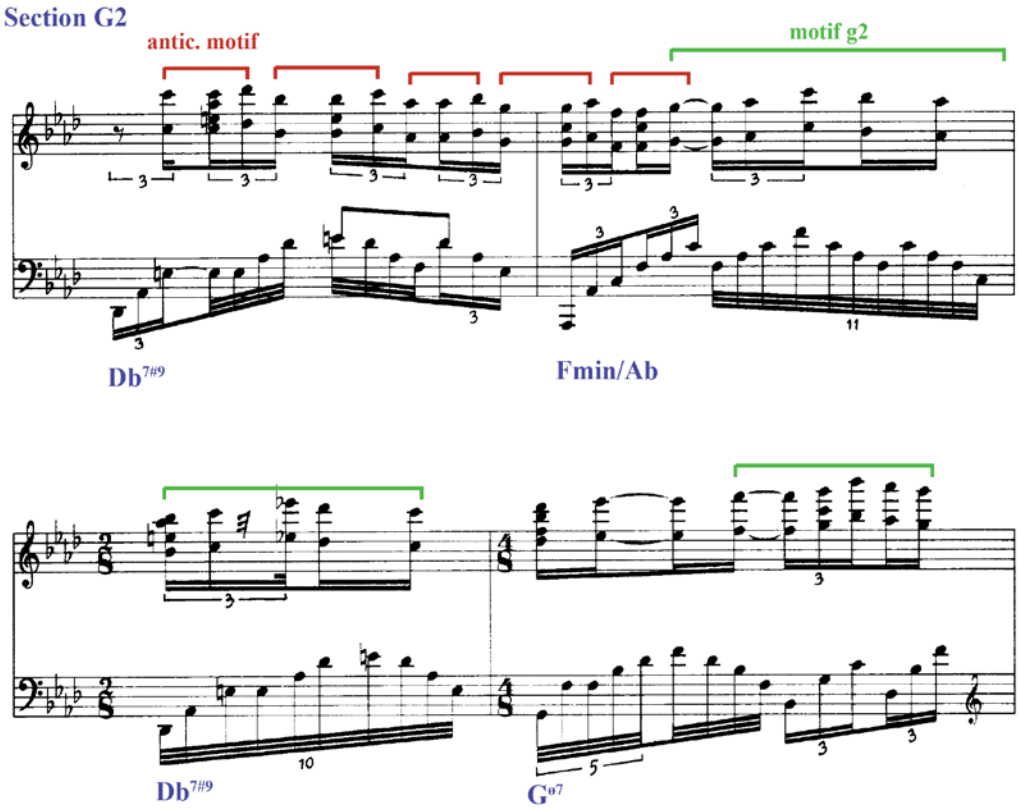

Figure 5.35: A Morning in the Woods – Section G2, p.8/ m.5–8

The recapitulation of Section *A* and *B* has only minor differences, mostly in the left hand, where right hand turn gestures are imitated to create a harp-like texture. As the Section *B* recapitulation is coming to an end, a new turn motif in the right hand is developed and later used in the coda. In Figure 5.36, the *b2* motif in red descends in 32nd–notes and step-wise motion, then leaps up a perfect 4th and finally descends a whole-step. The c-seg has a CC <-, -, +, ->.

The Coda starts in p.11/ m.1 with a codetta motif. As described earlier in this chapter, a codetta motif is an expressive technique where Ornstein juxtaposes bass chord pedals and echoes of thematic motifs in the treble register.

In Figure 5.36, a Bb bass is followed by echoes of the *b1* anticipation motif. It has been transformed with a quintuplet arpeggio preceding the main motif in m.2 below [B5, Bb5, Bb5]. The Phrygian feel of this B chromatic inflection signals a shift in mood that is similar to the transition from Section *B* to Section *C* (Figure 5.26).

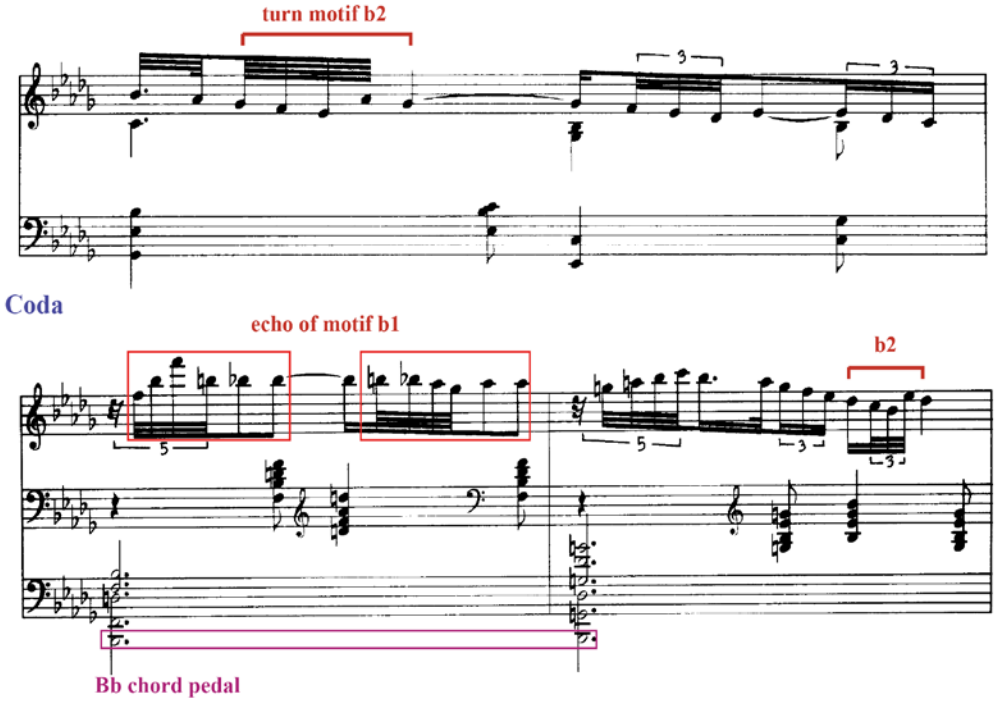

Figure 5.36: A Morning in the Woods – End of Recap and Coda, p.10/ m.7–p.11/ m.2

This final introspective section is in Bb Aeolian and has beautiful modal mixture and chromatic median harmonic progressions (p.11/ m.1–8): Bb- $G^{ø7}$/Bb- Gb^{7}/Bb- Eb/Bb- $C^{ø7}$/Bb- A^{7}/Bb- Bb. As shown in Figure 5.37, the turn motif *b2* is repeated every dotted quarter note. Ornstein only uses the three last notes of the motif and adds two repetitions, in order to combine anticipation motif characteristics from motif *b1* (Figure 5.26). This motif first appears as a sequence of an ascending perfect–4^{th} leap and a descending whole–step followed by two repeated notes. It is transformed by changing the order and direction of the intervals by starting with a descending whole step, followed by a descending perfect 4^{th} and finally 2 repeated notes. In the three last measures an echo of motif *b1* can be heard in the treble register. As discussed earlier in this chapter, this kind

of codetta motif has been used by Ornstein in other works, such as *To a Grecian Urn* S154, *Solitude S116* and the second movement of Sonata No. 4 S360.

Figure 5.37: A Morning in the Woods – Coda, p.11/ m.3–8

The main element that makes this work so effective and cohesive, despite its lack of macroscale form is motivic development. As in rhapsodic poetry and prose, patterns flow linearly and intuitively. As new motivic ideas are presented, they become a common thread that connects each section to the next. *A Morning in the Woods 106a* is a great example of how Ornstein's works achieve auditory cohesion through motivic self-similarity, without relying on larger form or a thorough harmonic scheme.

CHAPTER 5
INTERVIEW WITH SEVERO ORNSTEIN

5.1: Foreword

My first encounter with Severo Ornstein was through my Youtube channel, after he complimented me on my performance of *A Morning in the Woods SO 106*. A few years later, in 2017, we started a long correspondence that led to the interview provided herein. On September 6, 2018, I met Severo Ornstein and his wife, Laura, at their home in Woodside, San Francisco. It was a picturesque gray-brown clapboard house in the middle of the densely forested mountains of San Mateo. The first thing that caught my eye was the front entrance of the house, which had a metal engraving of the opening fugue subject from Bach's *Chromatic Fantasy and Fugue*, Leo Ornstein's favorite work.[262] The notes, staves, clef, time signature and accidentals where all intricately molded into a sort of modern temple pediment. The house interior was beautifully decorated with Japanese art works, African paper ornaments, a framed score of an excerpt from Ornstein's Impromptu No.1, SO 300a, [263] and a picture of Severo Ornstein in rock-climbing gear, posing on top of the Himalayas next to a sign reading: "Poon Hill View Point." This little piece of trivia explains the bizarre title of his publishing website "Poonhill." Before the interview, I performed a few of Ornstein's works for Severo on his beautiful Bechstein baby grand. The selection included the second movement of Sonata No. 4 S360, "Joy" from *Three Moods S005*, and *A Morning in the Woods S106a*. We then shared our ideas about the music and discussed some possible editorial corrections. This served, as it were, to break the ice, and immediately afterwards we embarked on the interview, which was conducted in one long 3-hour session.

[262] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 11.
[263] The depicted excerpt was from p.8/ m.11 until: p.9/ m.2.

Figure 6.1: Left: Front view of Severo's home with a metal engraving of Bach's Chromatic Fugue subject. Right: Severo, Laura and I enjoying some baklava.

Figure 6.2: Left: Severo and I. Right: Tree landscape in San Mateo

5.2: Leo the Pianist

ANDREAS-FOIVOS APOSTOLOU: As a concert pianist, Leo Ornstein always impressed his audience with his lyricism, virtuosity, and fierceness. Based on newspaper reports of his time, he evoked an extreme range of audience reaction from awe and astonishment to, quite literally, fainting. What qualities of his playing made him great?

SEVERO ORNSTEIN: He stopped playing concerts just about when I was born and I think he played in one or two after that. I never heard him perform, so I know only from the same way you do: from things I read or that people tell me. I've talked to people who ***did*** hear him play.

A.F.A.:[264] Please talk about that.

S.O.: Well, Walter Piston. We lived across the street from him at one time, up in Cambridge, Massachusetts. I didn't know him, but my wife was out for a walk and she ran into him one day. She was telling him who she was and who I was and he had apparently heard dad. He was very elderly at that point, but he said something to her about how he was the most marvelous pianist, he was just in awe of dad's playing. It was just what was going around the house for me, when I was a kid. I didn't know that there was anything extraordinary about his playing. I didn't realize how unusual it was, until later, when I learned a lot of music and listened to pianists. I thought: "My goodness, they make mistakes!" The idea that someone would make a mistake was something that never occurred to me before.

[264] Names are abbreviated as follows: "A.F.A." (Andreas-Foivos Apostolou), "S.O." (Severo Ornstein", L.O. (Laura Ornstein)

He was a very nervous performer. I've had a lot of people tell me how great he was but, of course, I just took it all for granted.

A.F.A.: Did you hear him practice?

S.O.: Oh, he practiced all the time! He practiced day in and day out. In fact, I asked him very late in life: "Why are you practicing so hard all these hours? What are you doing, you are not playing or performing any longer?" He didn't really have an answer and shrugged it off. When he was teaching, he felt he had to be in good shape to show the students what to do, but even after he stopped teaching, he was in such a habit that he couldn't stop. He did practice many many hours, my mother told me that, when he was playing back before I was born, he would practice 8–12 hours a day. He had to compensate for a very small hand and had to make leaps where most people could just reach. This is why he practiced more than most pianists. He told me one time: "Only a damn fool would play piano with a hand like that!" When I shook hands with Arthur Rubinstein, his hand just completely enveloped mine and I realized: "Oh my God, no wonder you can play like that!"

A.F.A.: Do you remember any of his repertoire and practicing techniques?

S.O.: It was all over the map! As a kid I would sit by him, on the piano bench, and one thing he did was to count the repetitions. He would put a little pile of match sticks and it was my job to recognize when he had repeated the passage and move the match from one pile to another. Some of the pieces just went around and never stopped, so I had to pay attention and recognize the repeats.

A.F.A.: Leo Ornstein performed many of his pieces from memory, without having to write them down, one example is the first three Piano Sonatas. Of course, that was before you were born . . .

S.O.: . . . exactly, and I think it was years before he wrote down the moods [*Three Moods S005*]. As a matter of fact, someone wanted him to write those down, because he was going to perform them in the '40s. He must have played them a lot.

A.F.A.: So, he remembered these atonal virtuosic works verbatim for years, how was that even **possible**? [265]

S.O.: I don't know, but he still remembered them. Then, there was a piece that he wrote called "*The Tartar Dance.*" He had taught it to Andrew Imbrie and someone wanted my father to write it down. They wanted to play it. He sat down at the piano and he started to play it. He remembered the opening, but then he ran aground at one point. He struggled a little bit and after two minutes or so he said "Ah. I am not going to bother with this, I can write better stuff today. I have better things to do with my time." But he remembered that he taught it to Andrew and wrote to him. He said that he didn't have the score any longer, but he remembered it. And so he played it onto a tape. I've got the tape and, in fact it's on the web now, it's on Youtube.[266] You know the composer, Andrew Imbrie?

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[265] *Three Moods S005* were written around 1914. These works last around 11 minutes and are extremely complicated, virtuosic, and atonal. The claims by Severo can be verified from an interview of Leo Ornstein with Vivian Perlis where the former mentions that *Three Moods* were never notated, until Leo Ornstein was "cornered" and "forced to do it." (Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 28.) He confirms that it was during a concert in memory of Paul Rosenfeld. This concert was sponsored by the League of Composers on January 23, 1949 and Grant Johannesen was performing Ornstein's work.(Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 243.) It is really extraordinary that he remembered these pieces for 35 years.

[266] In the description of the Youtube video uploaded on Severo's channel, he explains that Andrew Imbrie's recording is followed by a "snatch of the brief effort" Ornstein made to remember the

A.F.A.: He was his student in the Ornstein School of Music. Great composer! So, the *Tartar Dance* hasn't been transcribed?

S.O.: It has never been, no. It's a good project for a student somewhere to write that down. But, it's not altogether trivial. It moves along and you have to get the complicated harmonies just right, otherwise it wouldn't be the same. I have not tried to pursue that.

A.F.A.: Did you notice his memorization skills in any other facets of his life?

S.O.: I don't know anything about it, except what my mother told me. He would memorize an entire movement of a sonata in a day or two. He would remember 10–12 pages of music a day, so he must have had a phenomenal memory when he was younger. Later, I think less so, although he would surprise me by suddenly saying: "Oh, you don't know this piece?" and he'd play something like the Brahms D minor Violin Sonata, which I mentioned before.

A.F.A.: You mentioned before that he was able to pick up lines of the violin and blend them in with the piano part.

S.O.: Oh yeah, unbelievable. He could even play parts of the *Rite of Spring* for me and, you know, that's a challenge and a half. I don't know that he ever saw the music for it, but he had enough of it in his ear. [267] He admired the *Rite of*

piece."(Severo Ornstein, "Leo Ornstein - S157 - Tartar Dance," Youtube, 2009, https://www.youtube.com/watch?v=BSfuonhNuHg.)

[267] This can be verified by Leo Ornstein's own words from an interview with Terence J. O'Grady. When asked by the interviewer about the resemblance of *Wild Men's Dance S054* with *Rite of Spring*, Ornstein replied: "That's possible but I never heard it until much, much

Spring. It never crossed my mind that he could do that and get the whole orchestra in there.

A.F.A.: That's amazing. We were talking about his performing career and fame. How did he feel about it, did it cause him distress?

S.O.: Well. He didn't like playing in public, he just really hated it. In fact, people would come to the house and ask him to play. I remember he would say afterwards: "People pay hundreds of dollars to hear me play and this person thought I would just play for him!" He wouldn't do that; he'd never play for anybody. He would for **me**, but in the family it was different. He hated playing and he was a nervous performer.

A.F.A.: Tell me about his stage fright. Did he talk about this at all?

S.O.: Well, he didn't, but my mom did. She, of course, had spent quite a few years with him, by the time I came along. They'd been married for 10 years when I was born. At one point he said to my mother: "If we are ever going to have children, we better do it now!" It was his idea basically to have children. She was indifferent and would go along. He described her as rather "not good with children," and I think she wasn't, she was for **him**. But otherwise, she was a little bit an Eleanor Roosevelt type, [268] if you know what I am talking about.

later. And as a matter of fact, I think I've only heard the Rite of Spring once." (Terence O' Grady, "A Conversation with Leo Ornstein," *Perspectives of New Music* 23, no. 1 (1984): 128.)

[268]"Eleanor Roosevelt type": A wife who is whole-heartedly dedicated and in awe of her husband. Broyles also confirms this in his book, where he mentions that Pauline was so much in awe of Leo's musical gifts that later in life she "would regularly compare him to Bach." (Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 291.)

A.F.A.: What did she mention about his stage fright to you?

S.O.: She described the scene of him trying to get out of the back door. At the last minute, he couldn't face walking out on the stage. But he did it time and again, until he figured out that he didn't have to do that. It was his only meal ticket for years, you know. So, he did that. I think when he was a fearless youngster, he was surprising everybody. As he got older, he became more afraid, because he had a reputation to keep up then. In the early days, he said that he would go out on the stage and open with some horrific Liszt piece that would stun the audience and I think he did that with relative ease. But then later on, he got to hate performing. So, when he found he could make a living just teaching . . . "Wow!" That was a great relief. By the way, Andreas, I discovered a profile of him that was written in New Yorker in 1925.

A.F.A.: Interesting.

S.O.: I should give it to you, because it was ***very*** sensitive.

A.F.A.: I would love that.

S.O.: The people who were writing his biography were wondering: "Why did he stop playing? Why would someone who was right at the height of his career, why would he just suddenly . . . disappear?" There are a lot of theories and explanations. He **hated** playing, no question!

A.F.A.: He hated playing for people, but he liked playing, since he practiced all the time.

S.O.: Yes. He didn't mind playing for someone he felt was **worthy**, you know, who could understand what he was doing. But just the general public thing, concerts and so forth was, eh . . . **terrible**.

A.F.A.: He preferred composing, right? He wanted to have more time for writing.

S.O.: Oh, yes. He really wanted to have time to compose and that's why this article in the New Yorker is so surprising. The guy who wrote that piece in the New Yorker had it right. Dad finally got tired of being the speaking horse or the dancing monkey. He didn't want to be a show piece and wanted people to really listen to his music and feel it. He began to feel like he was a freak show and his music was like a freak show too, but that's not how he saw it at all. He thought it was really interesting and wonderful music. So, he was glad to give up performing. But he still continued playing a lot. He didn't mind playing, especially for his students, because they were anxious to learn and they were interested. He was apparently a much-loved teacher, from what I've been able to find out from his students that I knew.

A.F.A.: Like Andrew Imbrie.

S.O.: Also, when I was a teenager, I visited the School [Ornstein School of Music] and knew some of his students you know. One of my sister's classmates was a student of his, a particularly gifted girl. She was completely devoted to him. I think a lot of his students loved him, as I encountered later in life. I should tell you a story if you got plenty of tape there.

A.F.A.: Please do.

S.O.: When I was teaching at Washington University in Saint Louis, at some point, in a branch between the Medical School and Computer Science, I went to a party one night and there was a guy there, who was introduced to me and he said:

> -Ornstein, are you related to Leo Ornstein?
>
> -Yes, I am his son.
>
> -I ***hate*** that man!
>
> -Well, really? Why?
>
> -When I was in New York, on the lower East Side, my father dragged me to ***all*** of your father's concerts. All the other kids on the block wanted to be musicians, I wanted to be a doctor. I was the only Jewish kid in town who wanted to be a doctor! And my father said [Knocks hand on table decisively]: "You are going to play like Leo Ornstein!"

So, this guy went into teaching music at Washington University and **still** thinking at age 55 that maybe he would go back to Medical School. He was yearning to be a doctor; he was quite popular and was doing very well. He became a second-rate pianist, you know, the one they call when the real one can't play. He knew that about himself. He gave me a record that he made and told me he hated the life of performing. It was quite an introduction! Usually, if people knew about my dad they would say: "Oh, you lucky kid!" But this guy was forced by his father to imitate him and had failed.

A.F.A.: This really shows the extent of your father's fame and how people aspired to be like him. Did he talk at all about his artistic circle, famous performers, artists and so on?

S.O.: He didn't talk much about other people he played with and I was often surprised to find out the people he knew. It would just come out in a story he was talking about somehow.

A.F.A.: You mentioned Arthur Rubinstein earlier.

S.O.: When I was in high school, I went to a concert that Rubinstein was giving in New York with my local buddy, who was also a pianist. Afterwards, we went and talked to Rubinstein and he said: "Oh, your father! I have **great** admiration for your father." I was impressed with the size of his hand, as I said earlier, but afterwards my friend said: "You didn't tell him how well he played!" and I thought to myself: "Of course he played well. What would he do?" So, I sent him afterward a recording of my dad's works. It was the first modern recording of the Quintet, Sonata No. 4, SO 360, the Arabesques, SO 62, and a few other things played by Martha Verbit. He wrote back and thanked me for it. He also wrote about participating in a shameful little performance, where they were trying out Ampico player pianos.

A.F.A.: I was going to ask you about this. Your father advertised these player pianos, along with Rubinstein, Rachmaninoff, Godowsky and Hofmann.

S.O.: Yes. So, Rubinstein remembered it as a shameful incident in their life, because they were exploited to sell pianos. Somewhere, I collected piano rolls with my dad at some point and there was a little booklet with a picture of four pianists on stage. Two of them were Rubinstein and my dad, I don't remember exactly who the other pianists were.

A.F.A.: Did he look up to any pianists?

S.O.: He never listened to people. He admired Rubinstein, because of course he played with him, so he knew. He thought he was a good, solid and sensitive pianist.

A.F.A.: Did they play together for the Ampico player piano promotion concerts? [269]

S.O.: That's the only time, as far as I know.

A.F.A.: What did they play?

S.O.: I think they took the Schumann Carnival and each had a part to play. My dad played the "Chopin" section, which is a very gentle, easy one. He talked about "squeezing" the music. There is a recording of him playing the *Fantasie Impromptu* on the web. The comments that people make are: "Oh, he is distorting it all out of hell!" That was the style of playing at the time. Styles of piano playing have changed dramatically. I tried to listen in terms of today's quite rigorous standards, and tried to see what they were talking about. To me, it seemed perfectly natural, but indeed he played with tempo.

[269] Leo Ornstein was one of Ampico's "big four" classical pianists, along with Sergei Rachmaninoff, Josef Hoffmann, and Leopold Godowsky. Arthur Rubinstein also recorded and participated in many concerts in the 20s. They recorded piano rolls and played concerts as promotion for player pianos. (Broyles and Von Glahn, 199.) It is not clear exactly when Ornstein signed the contract with Ampico, but it was between 1913 and 1916. (Ibid, 200.)

A.F.A.: He lived during the Golden Age of Piano and he heard Josef Hoffman play.

S.O.: Exactly! Everybody did that.

A.F.A.: It is also more historically accurate.

S.O.: Yes, not only historically accurate, it actually honors the spirit of the music itself. A guy just recorded last week one of dad's pieces called *The Deserted Garden SO152*. You'd think it was a machine playing. He just had no sense of fluidity at all.

A.F.A.: So, your father's sense of tempo was very free.

S.O.: Very free! He had his own idea of how it should be. One of his students I remember, a young girl that was a high school student. He admired her, because she was able to reproduce what he would do with a piece of music.

A.F.A.: The flexibility of rhythm.

S.O.: Yes, she could catch it, capture it and reproduce it herself.

A.F.A.: Do you think his heavy use of polyrhythms was a way to achieve rhythmic freedom between the hands?

S.O.: I don't think that would be too deliberate for him, he never really had an idea about how it was going to be. It just came out that way. It came out **whole.** However, sometimes he tried things differently. In fact, if you listen to the *Long Remembered Sorrow S102,* snippets [from the Composition Session recordings online], he works it out in different ways, as he is playing through the piece. I knew that he was working things over. He liked to think that it came to him whole and a lot of it did, but he was also a real craftsman at building bridges. He would never be satisfied at anything he had to do as a craft.

5.3: Leo the Composer

A.F.A.: I would like you to talk about his writing process. How did he start writing a piece, did he follow a system or was it a matter of inspiration?

S.O.: Well, it was very much a matter of inspiration. He would break off in the middle of some piece he was practicing and, suddenly, music would start to flow. If my mother was around, she would immediately say to him: "Write it down! Write it down, before you forget it!" Sometimes it went on for five minutes! A whole piece would come out and then he would go back to the Liszt again. Sometimes he would stop and write it down, more often he would just let it go. Music just disappeared into the air! Just, **very** frightening. [Frustration] But, when he actually came to work on a piece and really start writing it down, I think he struggled with it. He had trouble remembering: "How did I get from here to there?" He was never satisfied if he had to make a bridge of some kind. He was never satisfied that it was as good as what he had originally thought. It had flowed along smoothly but he couldn't remember it all. This is why I worked on the Mockingbird program: to essentially create a memory assist mechanism for my father. I don't know if it was very successful. He tried to use it for some time,

when the tape recorders first came along. There were wire recorders and various kinds of recorders that preceded the tape recorders until they started to become more ubiquitous. He tried using one of the older ones to capture stuff, but it was never successful. He would get distracted, because they would have to search around to find the version he wanted. It was too cumbersome and he was used to remembering things himself. It was a hopeless mess. He continued to use it, but I don't think it ever proved helpful. [270]

A.F.A.: So, he blended his composition sessions with improvisation.

S.O.: Yes! This is why the *Composing Sessions*, that I put little bit snips of on the web, are a jumble. You really have to know what to look for. There are some things in there that are long enough stretches and could have been a full piece, but they are just snippets of a few minutes.

A.F.A.: I think there is an excerpt from the work *To a Grecian Urn S154*. [271]

[270] In a 1980 lecture about Mockingbird, Severo talks about how his father "struggled with the problems of writing down music on paper." Until 1980, there were no computers powerful enough for Severo Ornstein's program. He worked with John Maxwell from MIT on this project. In order to put music in the program quicker, Mockingbird allowed input and output from synthesizers. In other words, users could record something they played and instantly convert it into musical notation and also play back their score through the synthesizer. This method has a huge advantage over programming-in each note. (Ornstein and Maxwell, *Mockingbird -- A Musician's Amanuensis, Lecture by Severo Ornstein and John Maxwell*. Video timecode 1:12')

[271] The recordings Severo is referring to are included in "Composition Session 1" and "Composition Session 2," which are available on his website. In Composition Session 1 (video timecode 2:29'- 3:25'), there is a snippet of Leo Ornstein playing *Grecian Urn S154* that corresponds to p.4/ m.6 of the score available on Severo's site. (Ornstein, "Audio.")

S.O.: Oh yeah! There is a lot of recognizable stuff in there. Yes, that's right! *Long Remembered Sorrow S102a* is in there too. There are several things in there that never turned into a piece. There's one that I love that is still there.

A.F.A.: He also had an incredible ability to improvise and emulate different styles. Did you witness any of that?

S.O.: Not so much. The thing that surprised me was that he could pluck a piece out of the air. It might be a standard chamber work or orchestral and he would give a piano rendition of it. As far as improvising, well, he did a lot of it.[272]

A.F.A.: The *Composing Sessions* audio files you have uploaded online sound very improvisatory.

S.O.: Mind you, that is taken from a tape which was backed up and written over multiple times. That was not a continuous stream. So, that's why there are little bits and pieces mixed in.

A.F.A.: I didn't realize, now it makes more sense.

[272] Leo Ornstein taught a Language and Literature of Music course in the Ornstein School of Music, where he would demonstrate various compositional techniques by improvising in different compositional styles. (Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 216, 353.) Severo's reply indicates that he didn't practice improvising too much. Other sources verify that he had an innate ability, which surfaced from a very young age. His brother-in law, Titiev, used to play a melody on the violin and Leo was able to reproduce it and reharmonize it on the spot. (Broyles and Von Glahn, 8.)

S.O.: They would back up, looking for something, and then start recording again. Once or twice, he deliberately turned it on. For example, there is a complete recording of the *Tarantelle S155* on a **terrible** little upright piano!

A.F.A.: I listened to it. The music stops at some point and starts again.

S.O.: It's a piece that has a break in the middle and starts to repeat from the beginning. You can tell that they stopped the recording and then picked it up again.

A.F.A.: I was confused at first, because it sounded as if he had made a mistake. In reality, they were just very bad at editing.

S.O.: Yeah, they were not good technicians by any stretch of the imagination.

A.F.A.: How long ago were these recordings made, in the 60s?

S.O.: No, it was earlier than that.

A.F.A.: Your mother often described how Leo Ornstein threw away many sketches that were amazing.

S.O.: Oh! [Sigh] When their place got cleaned out, their closet was full of sketches. If he had finished all the things he started he would've written more than most composers in a lifetime. He just started on things and then they would

"die." I mean, he started to write a Trio at one point and, as you said, a Symphony, but they didn't materialize.[273]

He would get distracted and he never had a plan about things. He was really an inspirational guy and if "it **hit** him" and he liked it, then he would work on it and complete it. He only finished a fraction of the things he thought of.

A.F.A.: Can you please repeat the story you told me in the car about your father suddenly having an idea, while you and your sister were swimming?

S.O.: Well, it happened not once, but many times. We had a place in New Hampshire and owned a piece of a river, so we would go there swimming very often during the summer. They had the summer off and didn't have to teach, so we could all go swimming. I remember many times in which suddenly something would occur to him. He would have an idea and start humming and singing. We kids were swept up into the car and he would be singing along the way as we went home. He tried to keep it in his head and when he got home, he could put it on a piece of paper. We didn't resent it. That's how life was, you know. We always wanted to go swimming, but that was just how he was and it didn't seem unusual to us.

A.F.A.: Complicated music was playing in his mind and he had to write it down, before he forgot it.

[273] In a 1977 interview, Leo Ornstein mentioned working on a new symphony, which would take him years to complete. (Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 29.)
I asked Severo about this work before our interview and whether the manuscript was preserved. He mentioned that it is currently stored in the Leo Ornstein's paper archives at Yale Music Library along with other unfinished scores.

S.O.: Yes. He wanted to make sure to hang onto it, because he liked what he was hearing. Sometimes, an idea would flow through and he couldn't remember how it started. It could have a perfectly natural beginning. I've heard him play what could've been a full movement of a sonata and then just go back to practicing some Beethoven sonata. It would just get lost off into space!

A.F.A.: Before this interview, we talked about musical ideas that kept repeating in his head and tormenting him, like an earworm. [274]

S.O.: Yes, that did happen to him. It was part and parcel of the composing process. He was afraid of forgetting, but he was also bothered by things that wouldn't leave. He was absorbed and the only way he knew to shed the thing was if he got it down on paper. Then, he was psychologically able to let go. Somehow, once it was on paper, he could relax, because it was preserved now. The other thing, in that regard, was when they finally recorded the *Nocturne and Dance of the Fates SO 821–822*. He had written it many years before and it had been premiered by the St. Louis Symphony, but he hadn't been present. In modern times, after he was "rediscovered" in the 70s, the Louisville Symphony recorded it. He had never heard it before. After listening to the recording, he said to me: "I must never do that again! It drove everything else out of my head and that just stuck with me for a week. I couldn't write at all!"

A.F.A.: Leo Ornstein criticized experimentation as a "means to an end," and compared it to "aesthetic suicide." Did he like contemporary music?

S.O.: He thought that a lot of it was just nonsense. He wasn't completely condemning, I remember he pointed me, for example, at the first quartet of

[274] By "earworm," I refer to involuntary musical imagery; a single melody or an entire passage that sticks in someone's mind and endlessly repeats.

Schoenberg, which is a perfectly legitimate piece of music, but he went off the rails. As I say, his comment was: "Writing this kind of music is too easy, you just sit down and decide to write it. That's not how it works, you have to have an idea suddenly occur to you, something you can't concoct." You can't write themes like the Chopin *Préludes*, you can't create those. You try to make something that sounds like that. He always talked about substance, as opposed to "treading water," or "the machinery creaking." I remember, when he listened to Beethoven Symphony No. 7 Op. 92, he said it was like "machinery creaking." However, he loved Sonata No. 32 Op. 111 and the late Quartets.

A.F.A.: Did he talk about imitating himself, or restraining from a particular style?

S.O.: Yes, he was deathly afraid of that and he had good reason to, because in fact, he did imitate himself in various pieces. Some of them are in ABA structure and had a very distinctive tone. He didn't want to repeat himself and tried to avoid that.

A.F.A.: It's hard to do that.

S.O.: Yeah, exactly! He, inevitably, was going to fail to some extent, because he had a voice! He had a particular idiom that was how he heard things. I think he is certainly more varied than most composers.

A.F.A.: Much more! The spectrum of his opus is huge.

S.O.: It is very wide.

A.F.A.: Other composers that maybe have a similar stylistic spectrum like that are Stravinsky and Ligeti. Most great composers settle down to a particular style, or have 2–3 different writing periods. Many historians, and musicologists say that your father has 3 styles, which is a little wrong, in my opinion. They first talk about his early futuristic style, then the more conservative, lyrical style and finally one which blends both. But I don't buy that, because if you see it chronologically, it's all over the place. He would go back . . .

S.O.: . . . exactly! I know, because I was there! He was simultaneously working on pieces that you couldn't believe came out of the same guy! They were so different. As I said, it was deliberate, because I remember the Impromptu No.4 SO 300a that I eventually learned myself was written as a relief from a much more complex and serious work, which bore no relation to this. He was just taking the day off, from a more serious work.

A.F.A.: Do you think he ever imitated himself deliberately?

S.O.: In Sonata No. 8 SO364, he was thumbing his nose at everybody. If you listen to it, the first movement is mostly dissonant harmonically. The middle movement is made up of four little children's pieces and the last movement is pretty wild. But, within the first and the last movement, there is a sudden moment in which suddenly the sun comes out and there is this lovely melodic tone that is surrounded, immersed in this tarn of notes! The same is true in the last movement, where there is suddenly a wonderful melodic line. In the outer movements he had a moment in the middle that was just delicious. Oh, it made you hair stand on end! He deliberately did that! Marc-André [Hamelin] didn't like that. He recorded that, but didn't like the contrast. He thought the middle movement was too silly, compared to the outer movements, he was more into them. I loved it! The contrasting style makes the very melodic and simple harmonic part stand out so clearly. It is such a wonderful contrast. I don't know that he did it deliberately, he

would of course deny anything like that. He would deny that anything was deliberate, it was just what came to him. He was thumbing his nose at people who said: “You should be in this style, or that style. What are you doing? Why are you giving up on your radical stuff! Why are you retreating into Classical form?” and he was basically saying: “Screw them, this is what I am doing!”

A.F.A.: Do you know any artists that criticized him for that, people that initially admired him?

S.O.: I don’t know that I do. I had the impression, from my mother and other people I talked to, that it happened. Some people wrote about it, like Paul Rosenfeld. They were disappointed that dad gave up on being such a plowing head. He wrote a Violin Sonata SO 614, which is really a radical piece.

A.F.A.: Critics did not respond well to that piece. They said it had no structure, which is not true.

S.O.: He said: “I almost went over a cliff and I backed off.” He said that was over the edge, he didn’t want to go there. It was too formalist and somehow violated what he was experimenting. He also wrote for example a first quartet, that’s never been played and the manuscript is not in good shape. I asked him about that, when I tried to get all his music printed and he said: “Don’t bother with that. It was an early experimental piece, it’s not worth fussing over.” So, I have never dealt with that.

A.F.A.: What was his favorite work that he wrote?

S.O.: The Piano Quintet SO 610.

A.F.A.: This happens to be my favorite work of his as well.

S.O.: He also liked the Piano Concerto SO 824, a lot. It is very different.

A.F.A.: Did he find any artists of his time overrated?

S.O.: I don't think he paid that much attention. He wouldn't give them the time of day if he didn't find something interesting in their music. He just dismissed all of Hindemith with a wave of his hand. No real ideas there. He would've said the same about John Adams. He would describe it as "treading water." At one point I went through a Tchaikovsky phase, as everybody does in their youth, and he said "I can turn that sort of thing out by the yard" [Laughs].

A.F.A.: The lack of dynamics, phrases, and metronome markings in your father's scores, were all an artistic choice, or he was just being lazy?

S.O.: Being lazy - and his excuse always was that anybody who reads this kind of music will understand and if they don't, they shouldn't be going near it.

5.4: Melodic Writing and Lullaby

A.F.A.: Speaking about Tchaikovsky, I am always impressed by your father's melodic language.

S.O.: I think he had a terrific melodic gift. So did Chopin, Scriabin, Brahms and a lot of people. He would say: "there are composers who would give their right arm to have this tune," referring to a melody that just came to him. "You can't make that, you can make almost anything else, but you can't really make a good melodic tune." That's just a gift from the Gods or from wherever. You can't decide to write that. You can jazz it up in all sorts of different ways and dress it up in gowns and sequins, but the basic thing you can't make. You have to wait until it shows up.

A.F.A.: Somewhere, I read that when you were young, your father sung lullabies to you and your sister before you went to sleep. Do you remember any of them?

S.O.: Yes, absolutely.

[Severo didn't remember the entire lullaby, so he asked his sister, Edith Valentine, who had actually memorized it in its entirety, to send me a recording of her singing. The following transcription is based on her recording.]

Lullaby by Leo Ornstein

There was a little boy named Georgie and a little girl Molly too.

They went into the woods to see what they could see and what do you think they saw?

They saw a little chipmunk sitting in a tree looking down at them.

“Oh won’t you come down and play with us?”

The little chippy said: “Oh no, no, no! It’s time to go sleepy- byes.”

So Molly and Georgie ran down the hill and into their little house.

They climbed into their little beds and they went sleepy-byes.

They slept to the left, they slept to the right,

They slept all around the bed.

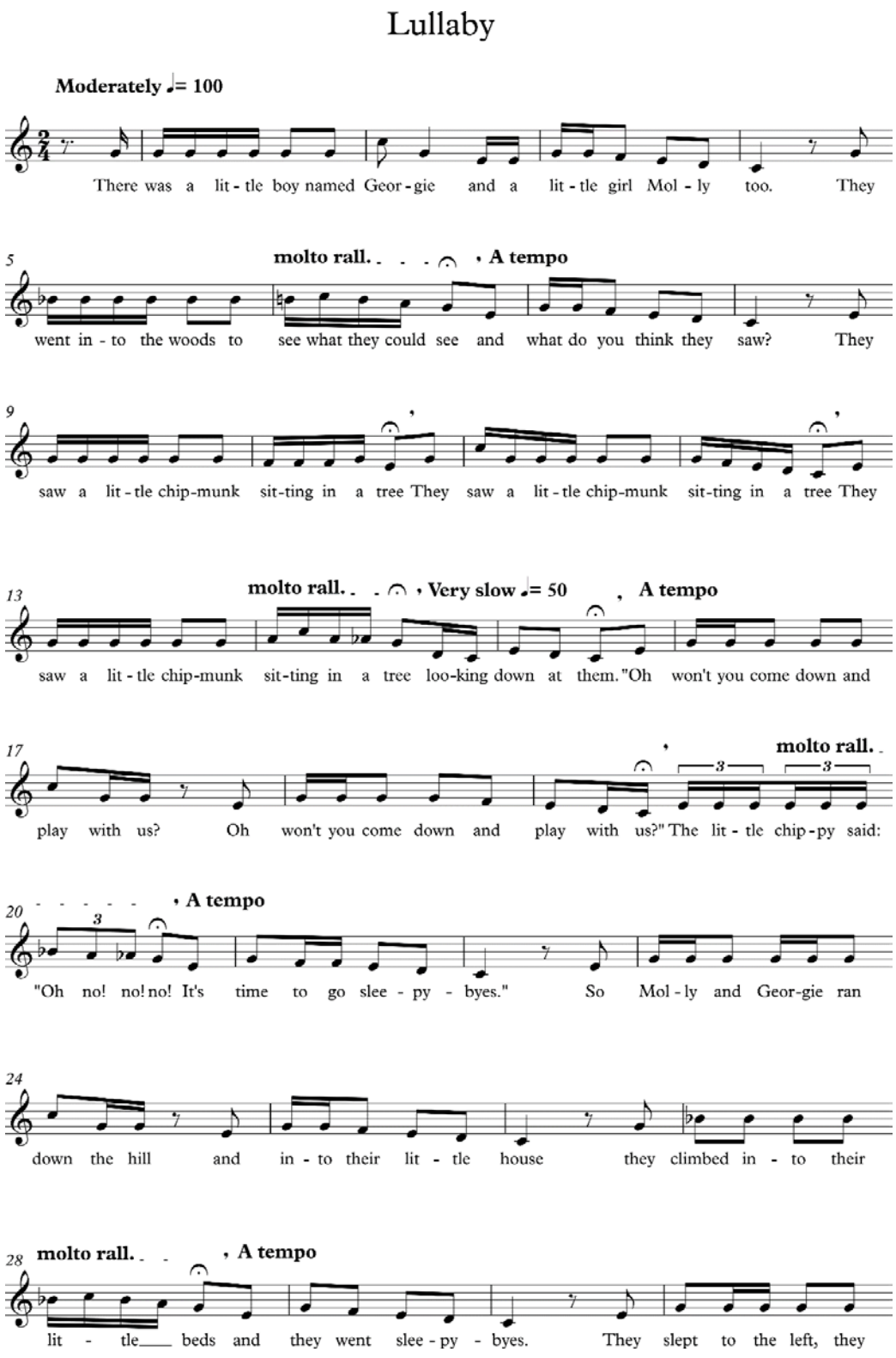

Figure 6.3: Ornstein Lullaby Page 1, transcr.: Andreas Foivos Apostolou

Figure 6.3: Ornstein Lullaby Page 2, transcr.: Andreas Foivos Apostolou

5.5: Personality

A.F.A.: Did he despise journalists and critics focusing on his personality instead of his music and ideas?

S.O.: Oh, sure. He thought that was absolute nonsense! He didn't think of himself as a particularly interesting person, he thought he was relatively mundane. He realized he had this extraordinary gift, that music would flow to him, but he didn't take much credit for it, in the sense that he was an instrument through which stuff flowed and got down on paper. He had no clue where it came from, or why some pieces were better than others. Why some pieces had some real meat on the bones, while others where just ok, but turning the crank.

A.F.A.: Is it true that your father didn't like to promote his own music? Did he perceive it as vain?

S.O.: You know, that's a very good question. There are many possible explanations for why. He was very keen on not letting my mother even respond

to inquiries about what happened (during his 33-year absence from the musical world). He was really hiding out.

A.F.A.: He never listened to performances of his works?

S.O.: No. The only time that I know of, was when he listened to the Nocturne and Dance recording.

A.F.A.: He didn't go to live concerts?

S.O.: No, he never seemed to listen to music.[275] I only remember one time, there was a Wagner opera on the radio and he decided to listen to it. He sat down on a chair and two hours later, I went back and he was in the exact same position. He was totally immobilized, sunk in the music for hours and hours, for the whole damn opera. Never breathed, or seemed to be alive, he was just soaking it up. He would introduce me to some of the Brahms symphonies, especially the second movement of the 4th Symphony. I learned a lot of music because he was playing it all the time as background.

A.F.A.: Your father said that, if his music has real value it will be eventually recognized, if not, it deserves to stay unknown. Did he recognize his own talent enough?

S.O.: Yeah, I think he did. You know, he had such a celebration of himself early on. My mother wondered at times whether he expected [his fame] to continue

[275] In Leo Ornstein's own words: "Quite frankly, I don't listen to too much music." (Grady, "A Conversation with Leo Ornstein," 128.)

while growing up. To some extent, he felt abandoned, when he started writing more conservative music. Basically, he didn't have very much regard for most people. If someone in the middle of a farm field in Iowa heard his music for the first time and sent him a letter, he would be very appreciative. He thought that was a real response and liked it. He didn't want to have anything to do with recognition in a traditional sense. In the early days, when he was playing his radical works, at first, he thought that all the attention he was getting was because people understood his music. He underwent a considerable disappointment when he realized that he was being treated more like the dancing monkey. People were more interested in him as a freak show, than his music.

A.F.A.: He was also a very elegant man, so he had the whole package.

S.O.: Absolutely. He probably had an affair with the famous dancer of his era, Martha Graham. He always had an eye for the pretty girl, as do I, but he was so devoted to my mother, that the idea of having an affair was inconceivable. He was a bit of a puritan in that regard. Our family was inseparable, we went everywhere together. One day, Waldo Frank came to visit. [276] Dad got in his car and we went, separately, in our car. My mother explained: "You know, they are going to talk about things the rest of us won't understand." That was a total surprise! It would never usually happen!

A.F.A.: How was he as a father and husband?

S.O.: As a husband he was very loving. He was also a pretty selfish guy. They were absolutely dependent on one another, as we are [Looks at Laura], but he

[276] The poet, social reformer and activist Waldo Frank was Leo Ornstein's devoted fan and close friend. (Von Glahn and Broyles, "Musical Modernism Before It Began: Leo Ornstein and a Case for Revisionist History," 34.)

didn't always treat her well. He was very impatient and had a temper like his father. He was like Mark Twain, always worried about money even though he didn't need to. He was always saving for the children. He devoted himself to providing a good education for both me and my sister. Although it was much cheaper those days, they had to work hard to do that. During World War II, times were tough and their finances were tight. We actually had a farm, because they had moved to the country to raise kids. He had been making a lot of money when he was playing and he had a lifetime contract with Ampico, which didn't last for long.

A.F.A.: Because the company was shut down.

S.O.: Yeah, the radio came along and the business just fell apart.[277] I remember them being concerned, but, of course, we were kids and didn't know anything about that. We lived very simply and they worked very hard. After World War II, there was a sudden influx of a lot of G.I.'s, who had the G.I. Bill and some of them wanted to play music.[278] So, their little school that started with my mother and him teaching in separate studios, suddenly ballooned and they developed a dance department, an opera department . . .

A.F.A.:. . . even painting classes.

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[277] By the 1920's, the invention of the improved phonograph and radio with speakers, started affecting not only Ampico player piano sales, but pianos in general. (Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 205.) This factor, along with maladministration within Ampico, led the company, in 1929, to switch their market from player pianos to radios. (Ibid, 296.)

[278] "G.I. Bill": The *"Servicemen's Readjustment Act of 1944,"* was a bill that signed by Franklin D. Roosevelt into law on June 22, 1944, just days after the D-day invasion of Normandy. It provided returning World War II veterans with benefits for living expenses, university tuition and educational grants (for studying in conservatories, dance schools, fine arts etc). "GI's" are World War II veterans.
(Franklin D Roosevelt, "Servicemen's Readjustment Act (1944)," OurDocuments.gov, 1944, https://www.ourdocuments.gov/doc.php?flash=false&doc=76#.)

S.O.: Yes, they had a whole flock of teachers of all kinds of instruments and there were like 900 students. It was a big deal in Philadelphia! So, they were able to send us to college, because money got loosened up for them. Dad was always a warrior about money, there was never enough. I think he had a very insecure childhood.

A.F.A.: They were tough on him. Especially his father, who didn't understand what it was like to be a musician. He only encouraged his piano studies, because he brought money to the table. Thankfully, his brother-in-law, Titiev, cared for him.

S.O.: That's exactly right. You know they lied about his age to get him to the Saint Petersburg Conservatory and made him somewhat older. For many years, we didn't know how old he was, he thought he was born in 1895.

A.F.A.: Later, you figured out his age from his twin sister, right?

S.O.: Yes. She had a child and the birth certificate showed her age. Since they were twins, we knew what the date was, 1893. He nearly had to be repatriated, because when his father was naturalized, the government thought he was underage. But, after they retranslated some papers, they decided that he was older when his father was naturalized, therefore he had been an alien all those years in the US. I remember him sitting at his dummy piano, practicing and reading American history to pass the citizenship exams. Not only that, but my mother, who was born in New Jersey, had unwittingly become an alien! The rule was that the wife adopted the citizenship of the husband.

A.F.A.: She became a Russian citizen!

S.O.: Yes! So, she also had to be repatriated with a different process.

A.F.A.: Bureaucracy at its finest.

S.O.: A mish mash! They got it straightened out anyway, but nobody really knew how old he was, until I tracked down this document.

A.F.A.: Do you think his personality affected his music making?

S.O.: Sure, in some of it. Anger! I could hear his voice practically. [Everyone laughs]

A.F.A.: In the *Three Moods S005*?

S.O.: Yes! His personality is reflected in his music. He was very animated when he was worrying about something. Very often it was a matter of money. He could be really difficult and demanding. On the other hand, he was also very loving. He was like his music: all over the map! He was very gracious with guests. For some of them though, he had no respect and was just being polite. For example, he would spend more time talking to a farm hand, who was interesting and wanted to talk about life, than a fancy guest. I learned about treating people on their merits, what they were worth individually and not on their status.

A.F.A.: Was your father inspired by nature?

S.O.: He loved nature. If he was inspired by it, he wasn't conscious of it. He loved to be out in the woods. His studio was way up on a mountain side in New Hampshire.

5.6: Literature, theater, atheism and faux pas

A.F.A.: What other things was he interested in, besides music?

S.O.: Well, he was not interested in talking about music. He thought music was something you did or listened to, but not something to talk about.[279] He didn't think much about musicologists or serious analysis. He knew he was a creator, but when guests came he was always ***much*** more interested about philosophy, history, political, and current events, but not about music. He liked to tell stories about the old days. He told me about funny things that happened in operas. He loved musical faux pas. In an opera, apparently the first violinist had a feud with the conductor, not a unique experience. There was this long vamp[280] from the orchestra and when it was time for the violin, he refused to come in. There was another about Wagner's Ring Cycle, where Brünnhilde was being lowered into the fire and suddenly the mechanism jammed and some guy in the peanut gallery[281] shouted "Hurray! Hell's full!" [Everyone laughs] He had quite a sense of humor.

[279] This can be verified by Leo Ornstein's own words: "My province is to write music, not to listen to it. And the time that I take off (from writing music) I go to things which have altogether nothing to do with music." (Grady, "A Conversation with Leo Ornstein," 128.)
[280] "vamp": a repeating musical figure
[281] "peanut gallery": cheapest seats in a theater, which were often occupied by people who heckled performers.

A.F.A.: Was he interested by Theater of the Absurd?

S.O.: I remember talking to him about Beckett, and he said: “If you put a frame around anything, it gives it a certain character.” I don’t think he was particularly fond of Beckett. He loved John Millington Synge and Luigi Pirandello. Pirandello liked to involve the audience in plays and sometimes they would take part in the lobby, unbeknownst to the people out there. He really mixed up what’s reality, what’s acting and where is the stage. My father loved that, because he went to a performance of “Six Characters in Search of an Author” by mistake and the play opens, as though you have arrived in a theater where they are rehearsing a play. They had never heard of Pirandello before and just went in! He is a remarkable writer. My father, also introduced me to Synge’s “Riders to the Sea,” which is about an Irish family that’s bereft, lost in the sea. Very simple and very beautiful.

A.F.A.: Did he talk about literature or philosophy with you?

S.O.: Yes, he would direct my reading and suggest that I read certain things. In the summer evenings, we would all sit on the porch and read to one another a mystery, or some piece of history. I learned a lot from that. He was a strong atheist, wouldn’t even talk about religion and would dismiss it as a waste of time. We would refer to it as “mumbo jumbo.” My parents weren’t against it either, they would say: “If you want to go to church, that’s fine. Do what you want, but I am not coming with you.” We had all sorts of discussions about philosophical things, I remember. About artists, we read “Dear Theo,” the letters that Van Gogh wrote to his brother, there is quite a bit of philosophy buried in there. He liked to talk about anything but music. He had a large library and was constantly with a book in his hand all of his life.

5.7: Jewish identity

A.F.A.: Did he embrace Jewish cultural or religious practices?

S.O.: No, and he would never admit that his music had a Hebraic twinge, but it **obviously did**! Any fool could see that there was a big Hebraic influence in, for example, the Quintet. He would have said: "No, no! That's not true, it's just the music."

A.F.A.: He thought the same about Bach's work. He said in an interview with Perlis that if you eliminated the subject of religion, it wouldn't make the slightest difference to him. The music itself moved him.[282]

S.O.: He was really antireligious, no question. He would never admit his music was religious whatsoever.

A.F.A.: Do you think that his early religious upbringing in Russia and his father, who was a cantor, had a subconscious influence on his music?

S.O.: Absolutely, it **must have** seeped into his ears, of course! How could he have avoided it? But, he would never have admitted it. That was part of his antireligious thing, it extended to absurd lengths.

[282] "I am absolutely moved by the music, just pure and simple. And even if you were to eliminate the entire subject matter and never told me anything about it, it wouldn't make the slightest difference to me. The music still is the thing that moves me." (Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 20.)

LAURA ORNSTEIN: That was true of my parents too, they were mathematicians.

S.O.: Yeah, but their number theory didn't have a Jewish tint to it! [Everyone laughs]

A.F.A.: His music definitely had a Jewish tint. All the exotic modes, dramatic long lines and small repetitive motifs, contribute to his sounding like Ernest Bloch at times.

S.O.:: He loved Bloch's music. Out of many contemporary composers, he expressed admiration for him.

A.F.A.: He also liked Korngold and performed his music.

S.O.: He knew him. In fact, I found a Korngold manuscript among his papers at one point. I must have given it to the proper authorities, like the Yale Music Library or something. He didn't mention him to me though. He talked about Bloch and, as I said before, Hindemith, but in negative terms. He also particularly liked Stravinsky's Rite of Spring.

5.8: Leo and Pauline: Partners in Music and in Life

A.F.A.: Would you say your mother brought a balance into his life?

S.O.: Yes, certainly. She was much more phlegmatic than him. You had the feeling that she was hanging on tight, as he was dashing around. She was making sure that he didn't get away from her. She had a very proper upbringing, in Park Avenue, New York. Her father was a well-known international lawyer and rode with the president in his car. She happened to be with the same music teacher as my father, so that's how they met.

A.F.A.: Are you talking about their piano teacher, Bertha Tapper, at the Institute of Musical Art (Juilliard)?

S.O.: Yes. So, they were engaged for three years before they actually got married. He was at the height of his fame and she had a very different background. Journalists that were writing about him said: "This marriage won't last a week," because their backgrounds were so different.

A.F.A.: She was high class and he was a Jewish immigrant.

S.O.: Near as I can tell, they were devoted to one another from day one. She was quite a good pianist and played the Beethoven's "Emperor" Concerto Op.73 with an orchestra. It was clear that she led a very sheltered and proper life, which she hated. She rebelled against the stuffed shirts that would come to the dinner parties and had something altogether different in mind. So, when she met my dad, he was her savior. Otherwise, she was very spoiled and when they first went out, her

nanny had to come along to chaperone them. Secondly, when they crossed the street, she froze! He had to drag her across the street, because she was so afraid and timid. She lost that level of timidity quickly. He said to me, at one point: "You know, when I married your mother, I told her that my work would always come first. What a fool I was! What utter nonsense!" She became the dominant stabilizing force in his life.

A.F.A.: It is known that your mother transcribed and helped Leo Ornstein, while he was composing. Can you talk about them being a team?

S.O.: I never watched them, because when they were working, the doors were closed and we were not to go near.

L.O.: Unless the house was on fire!

S.O.: But, later on, I saw them working. When he wrote, he just needed a few notes to remind him how to carry it along. His totally inscrutable hen-tracks on the page, where enough for him to get the basic stuff. But there was a tremendous amount of filling out that had to be done. That was what they worked on together. When he began writing a piece it would be just scratches; you would look at it and think: "There is no music here." Then, they would slowly but surely fill it in. She was certainly his critic, but she just loved everything he did. He was always fiddling and trying to make something better, as they went along. She was very impatient with that, because he was such a perfectionist that it wasn't going anywhere.

A.F.A.: After he finished a piece, he never went back to it, right?

S.O.: Once he had finally finished it, yes. Actually, there is one place in the Cello sonata. I had learned the piano part for that and I was playing it for him. At one point he said: "Oh, I should've done this!" It was in a place that had 16th-notes, but he should've had triplets. So, when I edited this music to put it online, I changed it. That's the only time I did that, but he was very clear about that. I think it sounded better, much more in tune with the rest of the piece.

A.F.A.: How did his life change after your mother's death?

S.O.: They were so close together, I thought that after she died, he would be dead within a year. I just couldn't believe that he would survive without her. He missed her terribly all that time, but he eventually picked himself up and was able to laugh and joke with people.

5.9: Piano Sonata No. 7 S363 and No. 8 S364a

A.F.A.: Did he write Piano Sonata No. 8 S364a after Pauline died?

S.O.: Yes, in fact a very interesting thing happened. After she died, he didn't write anything for about a year and then he started slowly to write some little works. Then, I got a call from contemporary music players in San Francisco and they wanted to perform something of my dad's:

"So, what do you recommend?"

"Why don't you ask him?"

"Is he still alive?!"

"Yes!"

So, they called him up and he was in the middle of working on a little Sonatina. Their ears picked up and they wanted to perform that. It was hot off the press! It turned out, he was working on the 7th Sonata, which is quite a stunning piece. At the same time, I was working on the Mockingbird system and so I said: "Look, I can print this up for you and make it more readable." So, we had a process going, in which he would send me some pages, I would put the music through the computer, print it up and send it back to him. He would make corrections; I would put them in and pass the pages along to the pianist. We had this production line going, as he was writing the thing! Time was getting close to the performance and he called me saying:

"I am stuck! I don't know how to get out of this hole I've dug for myself!"

"Come on, figure it out!"

A couple of days later, he figured it out. The pianist got the last pages of the Sonata only a week before the performance! So, he must have been crazy! Fortunately, he really liked the piece. That was the first thing he wrote after my mother died and I thought he would never write anything again. But he got started on the 8th Sonata and it suddenly blossomed out into this enormous thing. While he was working on it, there were many mistakes. Marc André Hamelin gave me pages of corrections that I went through with a fine-tooth comb and I agreed with all of them except one. We had a difference of opinion and I had the pencil in my hand, so I won! [Laughs]

A.F.A.: When I find mistakes in some works, it's usually a pattern that is repeated a lot and then it is different, but it is obvious that it should be the same.

S.O.: Those are easier to detect. Well, I was very cautious, so when Marc sent this flood of mistakes, I thought: "Oh God almighty, is it really true?" I looked hard at every single thing that he suggested. I had to agree, there were clearly mistakes and I fixed them. What I got from dad was pretty bad. His handwriting,

when he got old, was not clear: a note could be in the line or between. It was really hard and his hand wasn't so steady. He was almost 100 years old when he wrote that!

5.10: Leo the Teacher

A.F.A.: Some of your father's students grew up to have outstanding careers, as performers and composers.

S.O.: Yes, who was the famous saxophonist?

A.F.A.: John Coltrane. He studied at the Ornstein School of Music.

S.O.: I found out just recently. You know dad wrote a piece for saxophone and piano called *Ballade SO108*.

A.F.A.: I have heard it, what a great piece!

S.O.: I remember when he wrote it! He came home and he said: "You know, I have a student who plays the saxophone and he told me that the literature for saxophone and piano is very limited. He asked whether I would write something." So, he wrote that and I suspect it was for Coltrane! Because, how many saxophone students were studying with my father? I don't think many.[283]

[283] Coltrane studied at the Ornstein School of Music with Mike Guerra, a famous saxophonist, praised by Rachmaninoff for his performance of Symphonic Dances, Op. 45. He taught standard method books, but also gave more complicated homework on obscure chord progressions with chromatic scales, which Coltrane enjoyed a lot. It seems that there were actually quite a few

A.F.A.: What kind of repertoire and technical exercises did he teach his students?

S.O.: I remember when his student, Andrew Imbrie would come up to our place in New Hampshire. He was quite tall and our house was built small, because my father was short. I remember Andrew practically scraping his head on the door, as he came in. Someone asked him, while he was there: "What did Leo Ornstein make you do?" and he said: "He just made me practice the usual: Chopin etudes, Bach and standard repertoire, but just over and over."

A.F.A.: I want to ask you about his "match game" practicing method, where he would keep track of repetitions by piling matches. Have you observed him using it as a teaching method?

S.O.: Well, that was his practicing for himself. I don't know whether he passed that idea to his students.

A.F.A.: He actually did. Many of his students mentioned how he would make them do two or three small measure passages over and over again. One of his students, played the Mendelssohn concerto and she would circle certain passages that had to be repeated 70 or 100 times correctly.[284]

S.O.: Well, the piles of matches were big!

saxophone students in Guerra's studio, so it is not certain whether the "Ballade" was written specifically for Coltrane. (Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*, 221.)

[284] Broyles and Von Glahn, *Leo Ornstein: Modernist Dilemmas, Personal Choices*.

A.F.A.: If you made a mistake, you would have to start over again.

S.O.: He was a perfectionist, about playing and about his composing. There is no question about it, nothing was good enough. That's how you got it right.

A.F.A.: From a very young age, he taught you how to recognize repetitions in music, by participating in the "match game" method, right?

S.O.: Yes.

A.F.A.: In *Piano Sketch Books SO68*, your father wrote little pieces for children. Did he share his thoughts about learning methods of his time with you?

S.O.: He thought that most works for children were usually dull as ditchwater. They ought to have a real tune and there is no reason why, even in the simplest compositions, you can't have something children would enjoy, rather than something stupid. Some of those pieces are lovely, they got republished 5 years ago and Janice Weber made a recording of all of them, which was included in a CD. There are gorgeous chorales that resemble Bach. He actually wrote a couple of pieces in antique style for clarinet and flute. I am pretty sure that I put them on my website. I remember when he was writing them, as well as the Sketch Books. In fact, the original Sketch Books had a picture of a cowboy. I was responsible for the cowboy! I was listening to the "Lone Ranger" at that time, and I insisted that the cover should be a cowboy. So, that was my contribution. [Laughs]

A.F.A.: In his Keyboard Literature course at the Ornstein School of Music he would use a radical teaching method. He would demonstrate a work of a certain period and then improvise different possible alternatives. After that he would ask the class what fits better. Did you observe any of his lessons?

S.O.: No, I never watched him teach. That was in his studio and was a very private thing.

A.F.A.: Did you visit the Ornstein School of Music?

S.O.: Oh, I went to the School a lot, but his studio was sacred ground. You don't go near there, 'till the day is over. I remember him playing a number of things for me that I have never heard before, such as the Chopin *Polonaise-Fantasie* in A-flat major Op. 61.

A.F.A.: Was it hard for him to balance teaching with his concert career and composing?

S.O.: I don't know, because the concert career ended when I came to consciousness. I never saw him play publicly.

A.F.A.: He completely stopped performing?

S.O.: I was born in 1930 and he probably gave one or two concerts after that, because I remember this big violin[285], when I was 5 years old, he must have been rehearsing for a chamber concert then. So, by the time I reached semi-consciousness, at 14–15 years old, I never heard him play anywhere except practicing at home, or between lessons, at the School.

5.11: Years of absence (1937–1970)

A.F.A.: Can you please talk about the 33 years where he stopped composing, around 1937–1970, and went around the US with your mother. What happened during that time?

S.O.: I think he was just taking a vacation. When he finally settled down, my mother said: "It's time to get back to work now!" They went to Mexico and to Europe, but I don't remember exactly what they did. At that point, I had a family and had started to raise children, so I was preoccupied with that. I would see my parents intermittently and I thought: "Well, they worked a lifetime, they put us through college, so they deserve to get a break!" I am sure it was my mother, who suggested this, because he was kind of lazy and could take it easy. She understood what she had on her hands and wasn't going to let him get away. This is to her absolute credit! She really pushed him, no question, and we should all be thankful for that.

A.F.A.: Otherwise, there wouldn't be any *A Morning in the Woods.* [286]

[285] Severo is referring to a story he told me before the interview, where he was 5 years old and saw a cello for the first time.
[286] *A Morning in the Woods SO106* was written in 1971, right when Leo Ornstein started composing again.

S.O.: Exactly, or a whole bunch of other stuff, because in the mid ‘70s, he resumed composing. My sister was living in Kansas and they put a trailer near her, because she was getting a divorce, so they wanted to be around. Then they bought a trailer down in Texas and for a while they would go back and forth. It’s so funny they lived in a trailer camp, where trailers were parked. It was ideal, as far as they were concerned. They had luxury, but never needed it and were happy living in their trailer.

A.F.A.: How was it inside?

S.O.: It wasn’t too big. There was room for a little spinet piano.

A.F.A.: He had a piano in there?!

S.O.: Yes, it was in a working-class trailer park! So, at 6 in the morning, the workers would get up and go away and their wives would clean. They were all alone by themselves and nobody was going to complain about the piano.

A.F.A.: So, he was practicing during their trips.

S.O.: Not exactly, by the time they got down there (in Texas), she was holding his nose to the grindstone and saying: “We are going to write today, we are going to work!” It was too god damn hot to go outside and they had air conditioning in the trailer and two beds. It was nothing super fancy, all the other people there had roughly the equivalent kind of trailer. They were perfectly content and would’ve stayed forever, except that they got too old and, my sister and I, finally decided we’ve got to get them out of there. One of us has to look after them, so we gave

them the choice of basically coming to California or Wisconsin. They chose to go with my sister, up into Wisconsin, where she was living, partly because they felt she needed more help than I.

A.F.A.: Was this in the 70s?

S.O.: 1977–1978, something like that. We rented a big Winnebago type of motor home and put them in it. My sister, her daughter and I, drove them slowly but surely, up to Wisconsin. The damn thing broke down badly in the middle of the super highway and we had to rent a car. My mother wasn't able to walk very much at that point, so we had to lay her down in the back of a station wagon and drive like hell to get them to our destination. We just abandoned the motor home on the road, because a big piece fell out of it, the drive shaft was dragging on the road! It eventually was taken care of.

A.F.A.: He wrote a lot of works, after that.

S.O.: Yes, a tremendous amount of stuff was written between 1978–1979.

5.12: Revival

A.F.A.: You are the most dedicated promoter of your father's music. How did you go about finding venues, performers and record labels?

S.O.: Anyway, I could! Vivian (Perlis) did a good job of really putting him back on the map, when she gave a paper about 1971. As a result of that, he got a grant

from some outfit to make the first modern recording of music. There hadn't been any recordings of his music for a long time. At that time, 13-inch vinyl was the standard recording method and there was a thing called "composer's recording ink," which was designed for that and is no longer existent. They asked him what piece would you like to have of yours recorded and he chose the Piano Quintet S610. I wasn't really directly involved and got to know Vivian Perlis through that. When I heard the tapes of the recording, it was the first time I heard the Quintet, and I thought: "Wow!" So, that began my interest in his music, but I still had a full-time job that needed all my attention. It was only when I retired, which I did very early, at 54, that I could really dedicate myself to reviving his music. Suddenly, we found ourselves able to live without working. We weren't sure at first, whether we would have enough money. Lots of people wanted me to go back to work and I didn't feel that I wanted to. I'd done it for 30 years already and that was enough. If we saved, we had just about enough money to live ok. Then, what was I going to do? We had an organization called "Computer Professionals for Social Responsibility"[287] that was basically involved in anti-war work. The Berlin Wall came down, the urgency went away and so the organization gradually died, so I had nothing to do. I still had all these manuscripts, because whenever he would complete a work in later years, my mother would send a copy to Yale and a copy to me. So, I had quite a few manuscripts and they had given their lifetime work to Yale. Vivian had worked that out.

A.F.A.: Did you have to get the scores that were missing from the Yale archive?

S.O.: So, I had to get copies of things and spend a couple of days at Yale going through the collection. My father was so disorderly and they had not attempted to impose rigor on it. You know, librarians are very cautious to preserve everything.

[287] Severo Ornstein was instrumental in starting CPSR. (Judy O'Neill, "An Interview with SEVERO ORNSTEIN OH 183," *Charles Babbage Institute Center for the History of Information Processing University of Minnesota, Minneapolis*, 1990, 27.)

I thought: “Ok, this is a disordered mess. I’ve got to impose order on it,” and I did! I divided them up into the different eras, styles . . .

A.F.A.: . . . so much work!

S.O.: It was a lot of work and I had manuscripts spread all over the house for a long time, you know. I had to go back to Yale and make sure that I had copies of everything they had. At first, I was just working on the piano works, but that’s enough.

A.F.A.: That’s most of it.

S.O.: 1700 pages of piano music is what it was. So, I got all the early works that had been published, and I enforced an order on them by putting them into volumes. Then, I had to start scoring. A couple of years ago, we had just finished working on Mockingbird, but now other programs started to come along. Finale was new, but was very constrained. I tried to use it for my father’s music, but I got errors like: “What do you mean there are 17 notes in 4/4 time?” You know, there were n-tuplets into the structure that couldn’t be forced into their mold. There was an outfit that made a very simple program, that you could do anything with it. It was a graphics program that gave you basic elements and you could string them together, pretty much ad lib.

A.F.A.: It would take ages to line everything up.

S.O.: It’s a lot of work. To line it all up, to put the beams in the right place and to connect them. It amounted to drawing the music all over again. But at least I had

all the basic elements. Once I started using the system a lot, I became an expert. I spent 10 years. I took a very heavy hand, because nobody else had organized the scores. The people at Yale had just preserved the disorder my father had left things in. So, I simply said: "These are all the Waltzes," but if you look at them, they are not all Waltzes. They are mostly in 3/4 time, but that does not make a Waltz. I put them together and I ended up with a collection of random pieces that were not dated. So, I called him up and I said: "Here is what I have been doing. There is a bunch of pieces you haven't dated, or given any clue of what they are. I am going to put them in one volume. What do you want to call them?" After a while, I prodded him and he said: "Call them 'Metaphors'!" That's where the "Metaphors" came from. They were the residue that I couldn't piece together. They weren't sonatas, waltzes, or even named.

A.F.A.: So, he just plucked a title out of the air. It's actually very catchy. Were you disappointed or maybe angry that your father didn't care for the legacy of his own music?

S.O.: I was miffed that he wouldn't do more to make sure that it got preserved. I thought he was lazy and left everything for me to do. He did his part, but he could've helped a little more. [Laughs] He also showed a sort of indifference, when I told him what I was setting out to do. He said: "That's a crazy way to spend your time, but if that's what you want to do . . . go ahead and do it!" He was by no means encouraging about it. When I finally showed up, years later, with volumes of music to show him, he looked at them: "Very nice. I am very gratified. Now let's talk about something else." [Everyone laughs] I have to say, that was a little disappointing, because I really put a lot of work into that.

A.F.A.: You did it solely as a contribution to the arts.

S.O.: So, I had a career, I was involved in the world's first personal computer, I was a fairly well-known figure in the computer field and the beginning of the internet.

A.F.A.: You were also in the team for the first laser printer and the first music notation program.

S.O.: Yes, but this is probably a more lasting contribution. Nobody cares who did the first anything in technology. You know: "Give me my iPhone, I don't care about history!" I actually wrote a book about the history of computing and how I personally observed it.

A.F.A.: Are you referring to your book "Computing in the Middle Ages"?[288] I would love to read it.

S.O.: Well, you can. I don't care if people know who did what, but the music of my father is now preserved! The music is now being played and that's more gratifying than anything else. It was my own idea and it has been a success, as far as I am concerned.

A.F.A.: It's the only reason this music is being played today. Who else would have had the patience to pick up all this music, organize it and transcribe it?

[288] Severo Ornstein, *Computing in the Middle Ages: A View from the Trenches 1955-1983*, Open Access E-Books (1st Books Library, 2002), https://books.google.com/books?id=KW%5C_K0Hg75TsC.

S.O.: Yes, I didn't know who else would do it! Somebody would've eventually, but anyway, I am reasonably proud that I did it, because I think it is a real contribution to the world.

A.F.A.: I know you wrote letters to many important composers, like Elliott Carter and Bernstein. Were they interested; did they help at all?

S.O.:: I don't remember what Elliott Carter wrote exactly, but it was probably something like: "I have enough trouble getting my own music played. Good luck chum."

A.F.A.: Did you face any difficulties, while trying to promote your father's music?

S.O.: No, and when I was working on Mockingbird, I took full advantage of my father's reputation. I talked to Copland, Bernstein, Samuel Barber, and many others.

A.F.A.: What did they say?

S.O.: They all said different things. Well, Samuel Barber said: "Thank you for reminding me. Leo did me a great favor in Paris, back in the early days." Then, I asked dad about it and he didn't remember anything, or knew who Samuel Barber was.

A.F.A.: Really? I am very surprised. I wonder, if he would've enjoyed his music. I think he would like it.

S.O.: I think so too, absolutely. He didn't pay attention to contemporary music.

A.F.A.: What inspired you to get into digital music notation? Was it your love for the music?

S.O.: Yes, and I had seen him struggle to remember and I thought that maybe we could do something to provide a tool for musicians. Not so much for my father, because he couldn't even understand and was very naïve. He could drive a car and maybe run the toaster, but computers were a total mystery to him. I showed him demonstrations of Mockingbird and he couldn't understand what it was. I wrote to Bernstein and others in advance, trying to understand how they wrote music. Every last one of them said the exact same thing: "I am a good pianist, so I try things out on the piano. Nobody else does!" [Everyone laughs]

A.F.A.: They thought it was unique, because using an instrument was frowned on.

S.O.: Yes, because they thought writing on an instrument was limiting.

A.F.A.: Did Leo Ornstein write away from the piano at all?

S.O.: He did both, but most of the time, when I was around, he was trying things out on the piano.

A.F.A.: This is living proof that you don't have to write away from the piano, to create music that is unique and challenging.

S.O.: His music puts a real strain on the performer. You have to be a pretty good pianist. It's not just everybody that is going to play that music and get much out of it. That's because he was a fine pianist himself.

A.F.A.: Your father's music has the ability to captivate audiences. Earlier, before the interview, we were talking about a section in the *Tarantelle S155*.

S.O.: remember when I first heard that, I thought: "I could learn that!" The Tarantelle is a really difficult piece. I could play it, but really struggled. [Severo and I start singing the opening theme of the *Tarantelle* together in unison.]

A.F.A.: The work starts out very melodically and rhythmically driven, but it has a strange middle section with clashing dissonances.

S.O.: Then, suddenly it bursts out! The sequence where it bursts out again is one of my favorites! Martha Verbit was making the recording of the Sonata.[289] She lived in Boston and there was a guy who had a program on the radio station, called "Morning Pro Musica." A guy by the name of Robert Lurtsema, he was "mister Boston Music." He lived next door to this woman, heard her practicing and fell in love with the piece. So, in due course, he arranged for us to get together. We had him and Martha over to dinner. I expected the usual "piano-legged" woman

[289] Severo is referring to Marthanne Verbit's 1995 recording of Sonata No.4 S360. The album *"Past Futurists"* was published by Albany Records.

to come in. You know, the big, Russian kind. Instead, this statuesque "Georgia Peach" blonde woman walks in the door. She was quite beautiful and Lurtsema was used to being the star, but he wasn't this time. We got together, I held out a lot of manuscripts and played some tapes. We were down on the floor, listening to the *Tarantelle* and when she heard the section that opens up, she went: "Aaahhh!" She got it, right away! That segment caused me to want to learn the whole piece.[290]

A.F.A.: Did your father help you with fingerings or technique?

S.O.: I got fingerings from him now and then. I was learning the César Franck *Prélude, Fugue et Variation, Op.18*. There are some very clever things you can do with the hands in the fugue. He divided it in a way that's not on the score.

A.F.A.: I do the same thing in "Joy" from *Three Moods S005*. I think that when pianists have small hands, like me or your father, we have to find smart ways to divide the hands for certain wide range passages.

S.O.: Yes, exactly, you have to find a way. I still got the copy somewhere. In the cover, I ask him to help me out.

A.F.A.: How many works, haven't been recorded yet?

S.O.: A lot. More than one CD's worth.

[290] Severo is referring to the retransition starting in p. 4/ m. 6 through the recapitulation in p.7, m.12.

A.F.A.: Why do you think your father's music does not have enough of the attention it deserves?

S.O.: I think he shunned the music world at one time. He left it, and wouldn't do anything to promote his own work. In some sense, he missed a period of his life, when he could have been helping to promote his works, the way Copland and a lot of people did.

L.O.: But he didn't believe in self-promotion.

S.O.: Yes, that's right, and who knows what complicated psychology he had. I don't pretend to understand it.

A.F.A.: In the Perlis interview, he went as far to say that self-promotion is a form of exploitation,[291] which is a little naïve in a way.

S.O.: Well, the world had come to his door! He was a very gifted prodigy, everyone sought him out and he was celebrated. My mother said he thought that was going to go on forever. I think he was very naïve, but he was also very proud. He was just too proud to go knocking on doors to do the necessary stuff. I've done a lot of that, I had to persuade people to make records, twist arms and bend them every way I could, even if I didn't have much leverage.

A.F.A.: You did so much, wrote countless letters to record labels. I read about when you tried to get a record deal with Orion and how hard it was.

[291] Perlis, "The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis," 8.

S.O.: Orion guy was very sensitive and it was easy for him to get on his high horse. We finally worked it out. I wrote many letters, absolutely. When I was merely 60, I had a lot of energy, so it was ok. It seemed like the thing to do and the more I got into his music, the more important I thought it was. I learned quite a bit of music, going through it you know. I was doing a proof-reading job too and I didn't have a modern scoring system that could play back this stuff. The program I was using had no ability to play anything, it only recognized graphics. I had to figure out where the mistakes were and correct them.

[After the end of the interview, Severo's wife, Laura, took me to a viewing tower next to the house, where I could take in the whole setting of their house. As I was taking pictures and enjoying the surroundings, I heard a soft melody on the piano. It was Severo playing the opening theme of the *Tarantelle*.]

CONCLUSION

Leo Ornstein's writing style is extraordinarily diverse, as was the course of his life. He was championed by early 20th century modernist musical circles for his forward-looking experimental compositions, virtuosity and his multifaceted personality as he rose to fame. During a decade full of concerts, media attention and promotion deals, he disassociated himself from the futurist movement, risking the loss of his fanbase. In reality, he never associated himself with modernism, because he viewed experimentation for the sake of experimentation as aesthetic suicide. At no point in his life was he composing solely in one manner, which is why chronological definitions of his style fall apart. The birth of his expressive style was an outcome of his diverse cultural background, as a Ukrainian Jew, his vast knowledge of the piano repertoire ranging from Bach, Chopin, and Ravel to Bartók and Schoenberg, and his dazzling pianism. His unique sound was also a result of a mature motivic and harmonic language. Over a span of 10 years, he went from being an enfant terrible to a lyric poet.

He willfully withdrew himself from the limelight, due to his stressful concert career, his desire to focus only on composing, and his need to take what turned out to be a 33-year long break. This life choice, in combination with a lack of motivation to promote his own music is the reason why Ornstein was almost completely forgotten, even after his come-back in the 1970s and 1990s.

His genius is undeniable. As a composer, he was able to compose an entire piece in his head from beginning to end and perform it instantly. Furthermore, he possessed tremendous improvisation skills, musical sensitivity and virtuosity. After analyzing his music, I have identified a wide range of compositional devices and recurring motifs.

In respect to the Hebraic elements in his music, Ornstein admitted that he did not associate his use of modes with traditional or religious practices, rather with a subconscious memory of Jewish liturgical singing and Russian Orthodox plain chant. The way he incorporates (014) and (0145) motivic cells is

unique and eclectic, which is one of the reasons why music critics cannot exactly pinpoint the origin of his folk element. Is it Jewish, Eastern European, or Middle Eastern? These geographical and cultural categorizations are not vital, as his music transcends such restrictive descriptions.

Over the past decade, in which I have dedicated myself to the extensive practice and performance of Ornstein's piano works, and throughout my research into his life, it became evident that, had it not been for the preservation efforts of his son, Severo, Leo Ornstein's music may not have survived.

I am deeply grateful to Severo for making it possible to access his father's music online gratis, and to enable me to study and perform in public this extraordinary music that needs to be heard and should never be forgotten.

APPENDIX

Appendix A: Interview with Sarah Cahill

The following interview was recorded on September 8, 2018, at Berkeley University.

ANDREAS FOIVOS APOSTOLOU: As long as you accept, I will transcribe anything that relates to Ornstein.

SARAH CAHILL: Of course, it's an honor. I don't know if you will find anything of use. It's great to talk about Ornstein. Do you know André Aciman, the author of "*Call Me By Your Name"*? The one that was made into a movie. He's also related to Leo Ornstein. I was really into who originally came up with the idea of the forearm [cluster] and I heard that Ornstein came up with some extended techniques before Cowell. When I met him [Ornstein], he was 107; I saw him lying there in bed, I showed him a page from the *Impressions of the Thames S053* and I asked him how he played this. And he said: "with my **knuckles** or with my **fists**! Yeah, really! Why are you surprised?" I was surprised, because they were chromatic clusters so close together, you can't really play them with your fingers, you have to use your knuckles. That was great that he could remember looking at this page he wrote 70, 80 years ago, it was pretty amazing.

A.F.A.: I am also interested in Henry Cowell, because he supported Ornstein a lot at the beginning of his career. He even wrote an introduction to one of his pieces, *The Corpse 703a*. I was surprised to read about how he denounced Ornstein's more conservative and expressive style, after attending a concert in memory of Paul Rosenfeld.

S.C.: Cowell himself became very conservative after being in prison, it really changed him. He was in prison because of an encounter with a young man. It was terrible, he was in San Quentin. After four years he was paroled into the care of Percy Grainger. It didn't have anything to do with his sexuality. Cowell just had an encounter with a young man. I think Grainger was supportive of Cowell's music. Grainger wasn't rich, he lived in a house in White Plains. I went there and I saw, Cowell had a room upstairs. I'm not sure why they paroled him into his care. He was supposed to be in there for something like fifteen years and they let him out after four years. He was writing music, giving music lessons, conducting, he kept going. He wrote *"Rhythmicon"*, which was full of complex meters with 11 against 5, like in Carter's music.

I had heard, Severo said, that Ornstein had left out dynamic markings completely from his music because he wanted the pianist to make his or her own choices on his pieces, I think that's especially clear in *A Morning in the Woods 106a*, where there's an F-sharp E-sharp and then a Rachmaninov-like tune in the right hand so that's a moment when you can be *fortissimo, pianissimo,* and you can go in any direction. It's all about a misty atmosphere and you can go into creating some sort of impressionistic moments. But, it's not about that, every piece sounds different, because everyone has the freedom to put it as they want, with as many climaxes as they want! The fact that you can hear four, five interpretations of that piece, I don't know if there are four or five, that everyone is different. Everyone has the freedom to interpret it as they want, and that's because there are no dynamic markings. Whether he left out dynamic markings because he was writing down the music quickly, he would be at the piano improvising something really fantastic, we have some recordings of him doing that, Pauline, his wife, would say **– Write it down Leo! –** so whether it was because he wrote it down very fast and he would move onto the next thing, or whether he played with the dynamics, tempo, listened to it in all kinds of different ways. Maybe he composed very fast, like Bach as you say, it came out completely naturally and he couldn't get it down on paper fast enough.

A.F.A.: Ornstein loved Bach and *"St Mathew's Passion"* was his favorite piece of music. He would frequently praise Bach for being great and unfathomable compositionally. Do you think there's a connection between the interpretive freedom in Baroque music and Ornstein?

S.C.: You are right, he liked to be surprised by an interpretation of his pieces. It's not as if he went through them in a craftsman like way. I cannot imagine what it was like for Severo to go through all those manuscripts. Some of the pieces that are online you feel it's here's a page, here's a page, let's see if they go together! They were in some disarray. It wasn't all in folders marked *this all goes together!* I mean it's really a lot of work. It's interesting working on the stylistic side of a composer because usually there's a voice which goes from beginning to end. You can't trace the composer of *Airplane*[292] to the composer of *A Morning in the Woods,* to say that they are by the same person though they are written for the piano. It's for you to find out if there are rhythmic patterns that overlap. Perhaps he thinks in patterns. To play *Suicide in an Airplane*, as I did, right after September 11th, 2001 was not a good idea to have that title on the program.

In the case of Ornstein and Bach, music poured out of their head completely naturally. Ornstein was not able to get the music down on paper fast enough. I think that sort of genius is rare. The music came out completely spontaneously. It's a very interesting idea, like the "Metaphors" *S200a* I have been playing, which are not great [in structure] and are completely spontaneous. Let's see if they go together, probably, because they were in some disarray. They weren't in folders marked "this all goes together!" It took a lot of work, really. It's interesting that you are working on the stylistic variety, because usually with a composer there is some sort of voice that goes from beginning to end.

[292] Severo is referring to *Suicide in an Airplane S006*

A.F.A.: I would say this is also true about Ornstein's music. Thinking of a composer's language, of genres, pigeonholing and so on. You've had so much experience as a performer playing modernist music. How do you go about interpreting different styles in Ornstein piano works?

S.C.: To interpret the language of a composer, I think immersion works, to the point where you know where it is wrong to play it in a certain way and you think "**No!**" He would never do this and, after calling Severo, he checked it and he said there was a mistake in the score. He meant this! This chord is wrong! When you know the language of a composer you know when something is wrong. I remember George Steel, the music director and conductor, suggesting for George Antheil's 100th birthday, which was coming up in 2000 or 2001, that I play something by someone related in age, still alive at 106. It was in the late 90s that I got in touch with Severo, while I was working on *A Morning in the Woods 106a* and I got to the end where there is a beautiful pedal in B-Flat major. I called Severo and I said: "I don't care if he's 106, but I'm falling in love with your father, through his music!" I told my husband this, of course. Severo then wrote back later and said: "I told my father don't get out of bed and take the bus to California, because she's married!" It was a sense of connecting, when you study a composer's music and you live with it hours and hours every day and then you feel this deep connection. You can feel when there is a wrong note in the score. It's really wonderful.

A.F.A.: I totally agree. On a similar note, I found some errors in "*Three Moods" S005* and, after showing them to Severo, he agreed to possibly change them in the future. Even with such a variety of different styles, there is a distinct Ornstein voice. In my dissertation, I want to figure out what are the unifying elements throughout Ornstein's piano music. I think short melodic patterns and motifs are crucial to Ornstein's style.

S.C.: What makes Ornstein? There are certain clusters, *staccato* movements that stem from his work as a pianist. Before, we also talked about his relation with the Impressionists and Ravel. In Ornstein's music there are so many layers and in the distribution of the hands there is something that sounds very complicated, yet it fits.

When I met him, he was lying in bed, he was very frail, but his eyes were alive. He wasn't one of those older people who lie there and look sort of out of it. His spirit was raised. He wanted to talk and tell these tales. I had a long relationship with New Albion Records and they did a lot of recordings of Californian composers.

A.F.A.: Perhaps Ornstein didn't see the score as the art itself. It's fascinating.

S.C.: Ah yes, and there is a value in exposing music that is not very well known, like Ornstein's. If you think, there are so many pianists on YouTube and they are playing such wonderful music. If the music is available and you don't have to dig and dig and dig for it, then it should be played. Ornstein's 16000 manuscript scores are available online. There's so much that should be heard. Who buys CDs anymore? We are all going on YouTube. I think I can make more of a difference playing *Solitude S116* by Ornstein than playing Beethoven's Op. 109 in North Dakota, which is great because they like my playing and this repertoire. *Solitude* is such a great piece. The public should hear it. The big question is how do you introduce wonderful music to a public that is not prepared?

Appendix B: Supplemental Recordings

My recordings of Leo Ornstein's works can be found online on YouTube with score.

A Morning in the Woods S106a:
https://www.youtube.com/watch?v=EcKVav7rIzk

"Joy" from *Three Moods S005:*
https://www.youtube.com/watch?v=zs_MMkbdWx0

Appendix C: *A View from Golden Gate*

While visiting Severo, he had the kindness to drive me around San Francisco. We found a vantage point where the Golden Gate bridge could be seen in full view. Shortly after returning to Athens, Greece, I composed a work for piano, inspired by the beauty and marvel of Golden Gate. I am dedicating it to Severo.

My recording of this work is available online on YouTube with score.

Andreas Foivos Apostolou- *"A View from Golden Gate":*

https://www.youtube.com/watch?v=RyuezalHJNg

BIBLIOGRAPHY

Alarcón, Miguel Molina. *Baku: Symphony of Sirens: Sound Experiments in The Russian Avant-Garde. Original Documents and Reconstructions of 72 Key Works of Music, Poetry and Agitprop from the Russian Avantgardes (1908-1942)*. London: ReR Megacorp, 2008.

Anne, Midgette. "Leo Ornstein, 108, Pianist and Avant-Garde Composer." *New York Times*. 2002.

Apostolou, Andreas Foivos. "Leo Ornstein- Morning in the Woods." Foivosapostolou, 2015. https://www.youtube.com/watch?v=EcKVav7rIzk.

Bonney, Michael. "The Compositional Transformation and Musical Rebirth of Leo Ornstein." University of North Texas, 2011.

Bordman, Gerald, and Thomas S. Hischak. *The Oxford Companion to American Theatre*. 3rd ed. Oxford, New York: Oxford University Press, 2004.

Brooker, Peter; Thacker. *The Oxford Critical and Cultural History of Modernist Magazines*. Oxford: Oxford University Press, 2009.

Broyles, M. *Mavericks and Other Traditions in American Music*. New Haven and New York: Yale University Press, 2004.

Broyles, M, and D Von Glahn. *Leo Ornstein: Modernist Dilemmas, Personal Choices*. ACLS Humanities E-Book. Indiana University Press, 2007.

Carl Van Vechten. *Music and Bad Manners*. New York: Alfred A. Knopf, 1916.

Cortot, Alfred. *Principi Razionali Della Tecnica Pianistica*. Editions S. Milan: S. A. Edizioni Suvini Zerboni, 1928.

Cowell, Henry. "America Takes a Front Rank in Year's Modernist Output." *Musical America* 61, no. 23 (1995).

Craven, H T. “Musical America.” *Musical America* 90, no. 7 (1925).

Crumb, Thomas, and Cindy Clark. “Archives at Yale: The Leo Ornstein Papers.” Yale University Music Library, 2021. https://archives.yale.edu/repositories/6/resources/10614.

Darter, Thomas Eugene. “Part II: The Futurist Music of Leo Ornstein.” Cornell University, 1979.

Dickinson, Peter. "Copland: Early, Late and More Biography." *The Musical Times* 131, no. 1773 (1990): 583. Accessed June 27, 2021. doi:10.2307/966180.

“Editing an Oral History Transcript.” *Minnesota Historical Society*, n.d. https://www.mnhs.org/library/learn/collections/oral-history.

Edmund Wilson, Jr. “The Anarchists of Taste: Who First Broke the Rules of Harmony, in the Modern World?” *Vanity Fair*, 1920, 65.

Elder, R B. *Cubism and Futurism: Spiritual Machines and the Cinematic Effect*. Film and Media Studies. Waterloo, Ontario, Canada: Wilfrid Laurier University Press, 2018.

Ellis, David. “The Gentle Art of Transcription (Part 2).” *Electronics & Music Maker*, June 1984, 82–84. http://www.muzines.co.uk/articles/the-gentle-art-of-transcription/7906.

Forte, A. *The Structure of Atonal Music*. Reprint. Yale [Paperbacks]. New Haven and London: Yale University Press, 1977. https://books.google.com/books?id=j9aV2JYHY4AC.

Friedmann, Michael L. “A Methodology for the Discussion of Contour : Its Application to Schoenberg’s Music.” *Journal of Music Theory* 29, no. 2 (1985): 223–48.

Gail Levin. “Alfred Stieglitz, Les Compositeurs Contemporains et Le Modernisme.” In *Carrefour Stieglitz(The Sign of Stieglitz)*, edited by Jay Bochner and Jean-Pierre Montier, 167–78. Rennes, France: Presses

Universitaire de Rennes, 2012. https://www.gc.cuny.edu/CUNY_GC/media/CUNY-Graduate-Center/PDF/Art History/Gail Levin/Stieglitz_Levin.pdf.

Gilman, Lawrence. “Drama and Music: Significant Happenings of the Month. Shakespeare in the New Manner. The Amazing Marriage of Mr. Leo Ornstein and the Muse.” *The North American Review* 201, no. 713 (1915): 593–97. https://www.jstor.org/stable/25108434.

———. “Opera Magazine: Devoted to the Higher Forms of Musical Art.” R.C. Penfield, 1915.

Glahn, Denise Von, and Michael Broyles. “Musical Modernism Before It Began: Leo Ornstein and a Case for Revisionist History.” *Journal of the Society for American Music* 1, no. 1 (2007): 29–55. https://doi.org/10.1017/s1752196307070022.

Grady, Terence O’. “A Conversation with Leo Ornstein.” *Perspectives of New Music* 23, no. 1 (1984): 126–33.

Huneker, James. “Huneker’s Description of Ornstein Recital.” *Musical Courier* 78, no. 6 (1919).

Jones, Jared. “Seventeen Waltzes for Piano by Leo Ornstein: A Stylistic Analysis.” University of South Carolina, 2018.

Milken Archive of Jewish Music: The American Experience. “Leo Ornstein.” Accessed May 11, 2021. https://www.milkenarchive.org/artists/view/leo-ornstein.

Marinetti, Filippo Tommaso. “I Manifesti Del Futurismo.” *Lacerba*, 1914.

Martens, Frederick H. *Leo Ornstein: The Man - His Ideas - His Work*. New York: Breitkopf and Hartel inc., 1918.

Messiaen, Olivier. *The Technique of My Musical Language*. Translated by John Satterfield. Paris: Alphonse Leduc, 1956.

Michael Hewitt. *Musical Scales of the World*. The Note Tree, 2013.

Miller, Ron. *Modal Jazz: Composition and Harmony Volume 1*. Rottenburg, Germany: Advanced Music, 1996.

"New York Concerts." *Musical Courier* 84 (n.d.): 58.

Newmusicbox. "Obituary: Composer and Pianist Leo Ornstein." New Music USA, 2002. https://nmbx.newmusicusa.org/OBITUARY-Composer-and-Pianist-Leo-Ornstein/.

O'Neill, Judy. "An Interview with SEVERO ORNSTEIN OH 183." *Charles Babbage Institute Center for the History of Information Processing University of Minnesota, Minneapolis*, 1990.

Oja, Carol J. *Making Music Modern: New York in the 1920s*. *Making Music Modern: New York in the 1920s*, 2010. https://doi.org/10.1093/acprof:oso/9780195058499.001.0001.

Ornstein, Leo. "How My Music Should Be Played And Sung: A Series of Papers Devoted to the Character and Idiom of My Latest Works, Describing Essential Requirements for Their Adequate Understanding and Providing Suggestions for Mastery of Their Technical Difficulties." *Musical Observer* 12 (n.d.): 713–15.

———. "The Trend of Ultra-Modern Composition." *Musical Observer*, no. 21 (1922).

Ornstein, Severo. "About Leo Ornstein: Ornstein's Personality and Attitudes about Music." poonhill. Accessed May 3, 2021. http://poonhill.com/personality.html.

———. "About Leo Ornstein." Accessed May 9, 2021. http://poonhill.com/leo_ornstein.html.

———. "Audio." poonhill. Accessed May 14, 2021. https://poonhill.com/audio.html.

———. *Computing in the Middle Ages: A View from the Trenches 1955-1983*. Open Access E-Books. 1st Books Library, 2002.

https://books.google.com/books?id=KW%5C_K0Hg75TsC.

———. “Leo Ornstein - S157 - Tartar Dance.” Youtube, 2009. https://www.youtube.com/watch?v=BSfuonhNuHg.

———. “Scores: About the Notation.” Poonhill. Accessed May 2, 2021. http://poonhill.com/about_the_notation.htm.

———. “Scores: List of Works.” poonhill. Accessed May 9, 2021. https://poonhill.com/list_of_works.htm.

Ornstein, Severo, and John Maxwell. *Mockingbird -- A Musician’s Amanuensis, Lecture by Severo Ornstein and John Maxwell*, 1980. https://www.youtube.com/watch?v=0dxaEDKoTys.

Perlis, Vivian. “Leo Ornstein: The Last of the Original 20th Century Mavericks.” New Music USA, 2002. https://nmbx.newmusicusa.org/leo-ornstein-the-last-of-the-original-20th-century-mavericks/20/.

———. “The Futurist Music of Leo Ornstein.” *Music Library Association* 31, no. 4 (1975): 735–50. https://www.jstor.org/stable/896806.

———. “The Last of the Original 20th Century Mavericks: Leo and Pauline Ornstein Speak with Vivian Perlis.” *Archives of OHAM (Oral History, American Music) at Yale University*, 1977.

Perlis, Vivian, and Libby Van Cleve. *Composers’ Voices from Ives to Ellington: An Oral History of American Music*. New Haven and London: Yale University, 2005.

Pollack, Howard. *Aaron Copland: The Life and Work of an Uncommon Man.* 2nd ed. Urbana and Chicago: University of Illinois Press, 2000.

Roosevelt, Franklin D. “Servicemen’s Readjustment Act (1944).” OurDocuments.gov, 1944. https://www.ourdocuments.gov/doc.php?flash=false&doc=76#.

Rumson, Gordon. “A Composer across the Century.” Classical Music Daily, 1999. http://www.mvdaily.com/articles/1999/12/original.htm.

———. “Some Musical Fingerprints in the Compositions of Leo Ornstein.” unpublished. (unpublished paper supplied to the researcher by Severo Ornstein)

Sacks, Oliver. *Musicophilia: Tales of Music and the Brain*. New York, Toronto: Alfred A. Knopf, 2007.

Sarakatsanos, Marios. "Christos Zotos: From Theory to Practice. Modes, Taximia and Comping Technique." T.E.I. of Epirus, 2011. (Σαρακατσιάνος, Μάριος. “Χρήστος Ζώτος: Από Την Θεωρία Στην Πράξη. Δρόμοι, Ταξίμια Και Τεχνικές Συνοδείας.” Τ.Ε.Ι. ΗΠΕΙΡΟΥ, 2011.)

Schultz, Rick. “A Forgotten Composer Gets New Life.” The Orange County Register, 2013. https://www.ocregister.com/2013/11/11/a-forgotten-composer-gets-new-life/.

Seachrist, Denise A. *The Musical World of Halim El-Dabh*. Kent, Ohio: Kent State University Press, 2003.

Simpson, E E. *America’s Position in Music*. Boston: Four Seas Company, 1920. https://books.google.com/books?id=jcMwAQAAMAAJ.

Stevens, Halsey. *The Life and Music of Béla Bartók*. 3rd ed. Oxford and New York: Oxford University Press, 1993.

Straus, J N. *Introduction to Post-Tonal Theory: Fourth Edition*. 4th ed. London: W.W. Norton, 2016. https://books.google.com/books?id=AwZ4DAAAQBAJ.

Strong, Liz H. *Oral History Transcription Style Guide*. Edited by Caitlin Bertin-Mahieux Mary Marshall Clark. Columbia University Center for Oral History Research, 2018.

Taylor, Deems. “Music.” *New York Evening World*, February 18, 1925.

Uchida, Rika. “Tonal Ambiguity in Debussy’s Piano Works.” University of Oregon, 1990.

Vassilev, Maria Suzanne. “Leo Ornstein’s Piano Sonatas No. 4 and No. 8.” University of Miami, 2010.

Wallentinsen, Kristen M. “A Hierarchical Approach to the Analysis of Intermediary Structures Within the Modified Contour Reduction Algorithm.” University of Massachusetts Amherst, 2013. http://scholarworks.umass.edu/theses/1160/.

Zeckwer-Hahn Philadelphia Musical Academy. “Philadelphia Musical Academy: School Catalog 1925-1926,” 1926. https://www.ebooksread.com/authors-eng/philadelphia-musical-academy/school-catalog-1925-1926-lih/1-school-catalog-1925-1926-lih.shtml.