Summary of Three Dissertation Recitals

By

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DEDICATION

To my parents Shari Brown-Balla and Chris Balla

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ABSTRACT

The repertoire in the following dissertation recitals represents musical traditions ranging from antiquity to the diverse contemporary styles of today. Compositions for both large and small wind bands were performed, and each recital integrates a variety of musical perspectives.

The first recital was a collection of performances across the 2021-2022 academic year with the University of Michigan Symphony Band, Symphony Band Chamber Winds, Concert Band, and Concert Band Chamber Winds. The recital included *Theme and Variations* by Verne Reynolds; *Antígona: Apuntes para la Sinfonía* by Carlos Chávez; *All Set* by Milton Babbitt; *Pastorale variée dans le style ancien* by Gabriel Pierné; “Tumbao” from *Sinfonía no. 3 “La Salsa”* by Roberto Sierra, transcribed by Mark Scatterday; *Courtly Airs and Dances* by Ron Nelson; and *Winter Dreams* by Michael Daugherty. A lecture entitled “Recast” outlined how each composition synthesized the composer’s voice with borrowed musical material.

The second recital comprised of a combination of performances during the Fall 2022 term with the University of Michigan Symphony Band, Symphony Band Chamber Winds, and Concert Band. The recital included *Octet for Winds* by Barbara Pentland; *Sea-Blue Circuitry* by Mason Bates; *Divertimento no. 4* by Vincente Martín y Soler, edited by Patricia Cornett; *Petite symphonie* by Charles Gounod; and *Masquerade for Band*, op. 102 by Vincent Persichetti. A lecture titled “Places to Sing and Dance” highlighted the influence of geographical and historical context on the elements of song and dance in each composition.

The third recital included two performances which took place on January 27, 2023 with an *ad hoc* ensemble and January 29, 2023 with the University of Michigan Symphony Band Chamber Winds. The recital featured the world premiere of *Into the Labyrinth: A History of Physics from Galileo to Dark Matter* by Albert Rojo, arranged by Michael Gould, and orchestrated by Andrea Reinkemeyer; and *Rossiniana*, a collection of original works by Gioachino Rossini, arranged by Stephen Gryc. A conversation with Alberto Rojo and Michael Gould describing aspects of their collaboration as well as the scientific content of *Into the Labyrinth* preceded its premiere.

RECITAL ONE PROGRAM

Theme and Variations (1950)
Verne Reynolds
(1926-2011)

University of Michigan Symphony Band Chamber Winds
October 1, 2021

Antígona: Apuntes para la Sinfonía (1932)
Carlos Chávez
(1899-1978)
Prólogo
Episodio y Threno

University of Michigan Concert Band Chamber Winds
November 5, 2021

All Set (1957)
Milton Babbitt
(1916-2011)

University of Michigan Symphony Band Chamber Winds
January 30, 2022

Pastorale variée dans le style ancien (1898)
Gabriel Pierné
(1863-1937)
Andantino
Tema in canone
1re Double – Scherzosamente
2e Double – Tourbillon
3e Double – Tempo di minuetto
4e Double – Alla siciliana
5e Double – Allº maestoso

University of Michigan Symphony Band Chamber Winds
January 30, 2022

“Tumbao” from *Sinfonía no. 3 “La Salsa”* (2005/2009)
Roberto Sierra
(b. 1953)
trans. Mark Scatterday

University of Michigan Symphony Band
March 10, 2021

Courtly Airs and Dance (1995)
Ron Nelson
(b. 1929)

- Intrada
- Basse Danse (France)
- Pavane (England)
- Saltarello (Italy)
- Sarabande (Spain)
- Allemande (Germany)

University of Michigan Concert Band
April 11, 2022

Winter Dreams (2015)
Michael Daugherty
(b. 1954)

University of Michigan Concert Band
April 11, 2022

RECITAL ONE PROGRAM NOTES

Theme and Variations (1950)

Verne Reynolds
(1926-2011)

Verne Reynolds was an influential composer, educator, and performer who left a lasting impact on American brass playing. Professor Emeritus of Horn at the Eastman School of Music, Reynolds was born in Lyons, Kansas on July 18, 1926 to musical parents who, shortly after his birth, moved the family to the nearby “Little Sweden” enclave of Lindsborg where Bethany College made its faculty available to town residents.[1] At age four he began violin and composition lessons with his father followed by piano lessons at age seven with Arvid N. Wallin, professor of music at Bethany College, and at age fourteen he began the horn, the instrument of his renown, due to the needs of his school’s band program.[2] Wallin, who Reynolds considered his most influential teacher, introduced him to the piano repertoire of Bach, Mozart, Beethoven, Chopin, and Brahms which he credited as the origins of his musical sensibilities.

After high school he enlisted in the Navy as a military musician and moved to Washington, D.C. to perform piano in a jazz band and horn in a concert ensemble. In 1946 he began his formal musical study at the Cincinnati Conservatory of Music (CCM) where he studied horn performance with Gustav Albrecht who was preparing to retire from the Cincinnati Symphony Orchestra (CSO) the following year.[3] Albrecht prepared Reynolds to audition for the position which he won at age twenty prompting his change of study to composition.[4] He completed his bachelor's degree in 1950 then attended the University of Wisconsin-Madison where he taught horn while completing his master's degree.[5] He studied conducting, composition, and horn performance at London's Royal College of Music on a Fulbright Grant 1953-4 followed by an appointment as professor of horn at Indiana University.[6]

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[1] Various author, “Verne Reynolds (1926-2011),” *The Horn Call* 42, no. 1 (October 2011), 32.

[2] Lawrence Michael Lowe, “A Conversation with Verne Reynolds,” *The Horn Call* 21, no. 1 (October 1990), 27.

[3] Ibid, 28.

While teaching at the University of Wisconsin, Reynolds recognized a lack of contemporary educational and performance repertoire for solo horn. When he was appointed to the faculty at Indiana University, he felt his students were not challenged by the existing published horn methods of Georg Koprasch, Maxime Alphonse, and Bernhard Müller.[7] He began writing études for his students that he later published in *48 Études for French Horn* (1986) which, in addition to his textbook *The Horn Handbook* (1997), are widely considered essential by many brass pedagogues.[8] Reynolds was appointed to the faculty at the Eastman School of Music of the University of Rochester in 1959 where he taught until his retirement in 1995. He is considered one of the most influential American horn pedagogues and taught students who went on to play in major symphony orchestras around the world including the Chicago Symphony Orchestra, Cleveland Orchestra, Pittsburgh Symphony Orchestra, San Francisco Symphony, and many others. Several of his students also became professors of horn at influential institutions such as the University of Colorado, University of Florida, University of Nevada, University of Tennessee, and Vanderbilt University.[9]

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[4] "Verne Reynolds (1926-2011)," 32.

[5] Ibid.

[6] "Verne Reynolds (1926-2011)," 32.

[7] Lowe, 29.

[8] Ibid.

[9] Ibid, 27.

Reynolds composed throughout his teaching career and primarily wrote music for horn and brass ensembles as well as solo instrumental sonatas and large scale works for wind band. His earliest compositions reflect the influences of Paul Hindemith, but he turned towards serialism in the late-1960s until blending compositional trends beginning in the mid-1970s.[10] He also maintained an active performance career which included principal horn of the Rochester Philharmonic (1959-69), the American Woodwind Quintet, and the Eastman Brass, the faculty brass quintet which he founded in 1964 with his colleagues Cherry Beauregard (tuba), Barbara Butler (trumpet), Charles Geyer (trumpet), and John Marcellus (trombone). [11] The quintet sought to raise the artistic level of the genre through performance and the expansion of repertoire. Reynolds said of the challenge:

> …the string quartet literature goes at least as far back as Haydn…Our literature has to be made right now on the spot…It kind of goes back to the brass bands of the early twentieth century. They would travel abroad, and a lot of their repertoire was arrangements by people such as Herbert L. Clarke, Richard Pryor, and [John Philip] Sousa. The next step along that path was the development of dance bands in the 30s and 40s after the brass bands died out. Just like the brass bands, they were usually led by a virtuoso performer, and their literature came from the same place – mainly arrangements and a few original pieces. Well, that died out in the late 40s, and about this time the brass quintet began to flourish.[12]

In 1946, the same year that Reynolds arrived at the Cincinnati Conservatory of Music, trombonist and conductor Ernest Glover was appointed to establish and direct a brass ensemble department within the school.[13] Glover recognized a lack of quality contemporary brass literature after exhausting his options during one season.[14] American brass bands, a tradition which dates back to the 1830s and the beginnings of the Civil War, originally performed military rites or arrangements of popular overtures and dance tunes.[15] At the end of the war, these brass bands were absorbed into military and civic bands which included woodwinds and percussion, thus discontinuing the necessity of new brass repertoire.[16] Glover's ensemble had access to contemporary transcriptions of Bach, Handel, Beethoven, and others in addition to original works for brass by Samuel Adler, Paul Dukas, Giovanni Gabrieli, Johann Pezel, and Richard Strauss, but lacked depth of selection and modern compositions.[17]

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[10] Lowe, 29.
[11] "Verne Reynolds (1926-2011)," 32.
[12] Lowe, 30.

Unprompted, Reynolds wrote a piece for the group in 1948 entitled *Introduction and Allegro* which inspired Glover to establish a brass ensemble composition contest the following year as a platform for the creation of new works.[18] Glover, a trombonist in the Cincinnati Symphony Orchestra, enlisted the help of CSO conductor Thor Johnson, an advocate for music education, to serve as judge and namesake to draw prestige to the award.[19] The competition, which was opened to applicants outside of CCM in 1950, was held through 1958 and drew upon the expertise of notable composers such as Vittorio Giannini, Erik Leidzén, Paul Creston, Roy Harris, and Leo Sowerby to serve on judging panels. Glover also asked music publisher Robert King to serve as judge in exchange for publishing submitted works in his "Music for Brass" catalogue.[20]

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[13] Nathan John Siler, "A History of the CCM Brass Choir" (DMA, diss., University of Cincinnati, 2012), 35.
[14] Ibid.
[15] Frank L. Battisti, *The New Winds of Change: The Evolution of Contemporary American Wind Band/Ensemble and Its Music* (Delray Beach, FL: Meredith Music Publications, 2018), 7.
[16] Battisti, 7.
[17] Siler, 35.
[18] Ibid, 36.
[19] Ibid.
[20] Ibid, 37.

The 1950 winner of the Thor Johnson Brass Ensemble Composition Contest was Reynolds's *Theme and Variations* for eleven-part brass choir (3 trumpets, 3 horns, 3 trombones, euphonium, and tuba) and timpani. The piece is set in the formal conventions of the Classical era theme and variations with a self-contained theme followed by three variations and codetta as shown in Figure 1.1.

Figure 1.1: Formal Chart of *Theme and Variations* by Verne Reynolds

Section	*Measures*	*Length*	*Tonal Center*	*Tempo & Time Signature*	*Variation Type*
Theme	1-17	17	D aeolian	4/4 ♩=76, *Andante Sostenuto*	
Variation 1	18-40	23	B dorian	4/4 *l'istesso tempo*	Motivic
Variation 2	41-137	97	E mixolydian	6/8 ♩.=132, *Allegro*	Rhythmic, Phrase Expansion
Variation 3	138-76	39	Unstable	3/4 ♩=76, *Andante*	Melodic Inversion
Codetta	177-96	20	E-Flat major	4/4 *accelerando & rallentando*	Motivic

As was established in the Classical era by composers like Franz Joseph Haydn, a theme and variations follows a principle that as music continues it becomes less recognizable from the original thematic material. The phrase structure of Reynolds's Theme serves as the basic formal material of the composition. The composer employs a musical architecture known as formal-outline structure in which aspects of the theme's form and phrase structure remain constant,[21] thus subsequent variations, outlined in Figure 1.2, maintain a similar organizational pattern while expanding and diminishing proportions. The macroscopic architecture is combined with the local technique of melodic-outline variation in which elements of the theme's melody are recognizable despite figuration, simplification, or rhythmic recasting.[22] Reynold's melodic material is developed through motivic fragmentation of the Theme's intervallic and rhythmic content.

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[21] Elaine Sisman, "Variations," in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.29050.

Figure 1.2: Comparison of phrase construction of *Theme and Variations* by Verne Reynolds

Theme

Phrase	a_1	a_2	a_3	a_k
Measures	1-5	6-9	10-14	15-17
Length	5	4	4	4

Variation 1

Phrase	b_1	b_2	b_3	b_3'	b_k
Measures	18-21	22-25	26-30	31-36	37-41
Length	4	4	5	6	5

Variation 2

Phrase	c_1	*trans.*	c_2	c_k
Measures	42-60	61-66	67-116	117-137
Length	19	6	50	21

Variation 3

Phrase	d_1	d_2	d_3	d_k	d_k'
Measures	138-143	144-152	153-160	161-170	171-177
Length	6	9	8	10	7

Coda

Phrase	k_1	k_2
Measures	178-183	184-196
Length	6	13

The Theme consists of four balanced phrases, the first of which the composer establishes the motivic content for the entire work. The four primary motives, delineated in Figure 1.3, alternate between arch and ascending scalar contours and emphasize perfect intervals and thirds both in adjacencies and ambituses. The harmonic and melodic apex of the Theme, Figure 1.4, occurs in the second phrase (a_2) in measure 8 and serves as a formal marker for each variation in which the music approaches and departs in either direction.

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[22] Sisman.

Figure 1.3: Verne Reynolds, *Theme and Variations,* mm. 1-5, trumpet 1

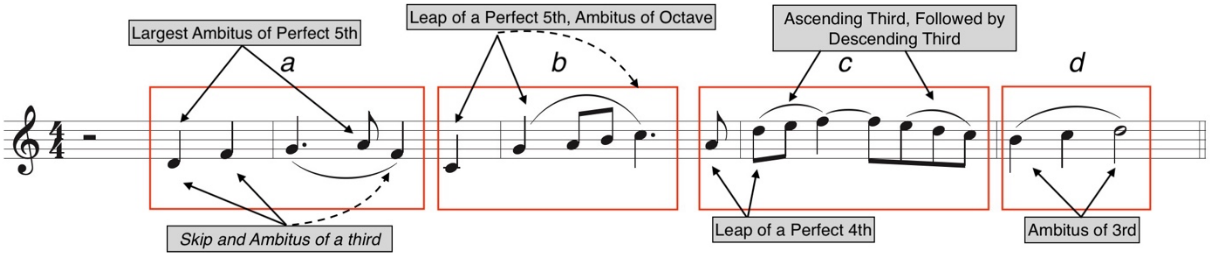
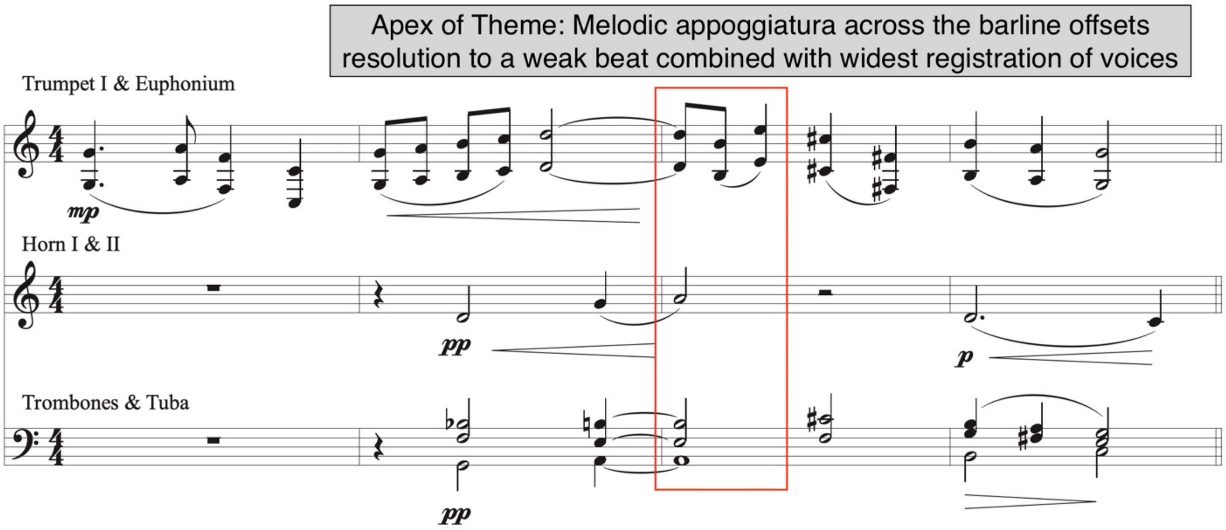

Largest Ambitus of Perfect 5th
a
Leap of a Perfect 5th, Ambitus of Octave
b
Ascending Third, Followed by Descending Third
c
d
Skip and Ambitus of a third
Leap of a Perfect 4th
Ambitus of 3rd

Figure 1.4: Verne Reynolds, *Theme and Variations,* mm. 6-9 reduction


Apex of Theme: Melodic appoggiatura across the barline offsets resolution to a weak beat combined with widest registration of voices

Trumpet I & Euphonium
mp
Horn I & II
pp
p
Trombones & Tuba
pp

The Theme's chorale-like melody, played by the solo trumpet and the euphonium, is accompanied by modal harmonies centered in D aeolian and avoids definitive cadences in favor of continuous harmonic flow. The Theme's closing phrase (a_k) mirrors its opening phrase (a_1) but repeats a sequence of motive *a* and motive *b* and leaves the phrase unresolved by eliding into Variation 1.

An examination of the opening phrases of each variation demonstrates the technique of melodic-outline variation mentioned above. As shown in Figure 1.5, the motivic content of phrase a_1 is present in phrase b_1 but is altered rhythmically or intervallically. A comparison of the corresponding phrase in Variation 2 (c_1), Figure 1.6, displays not only the rhythmic resetting of the Theme but also proportional elongation and contraction of motivic material. Finally, phrase d_1 of Variation 3, Figure 1.7, reinterprets the motivic proportions as well as includes inverted contours and harmonic elaboration. Each of these melodic transformations represents a process of continually obscuring the Theme as the work progresses.

Figure 1.5: Verne Reynolds, *Theme and Variations,* mm. 17-21, trumpet 1

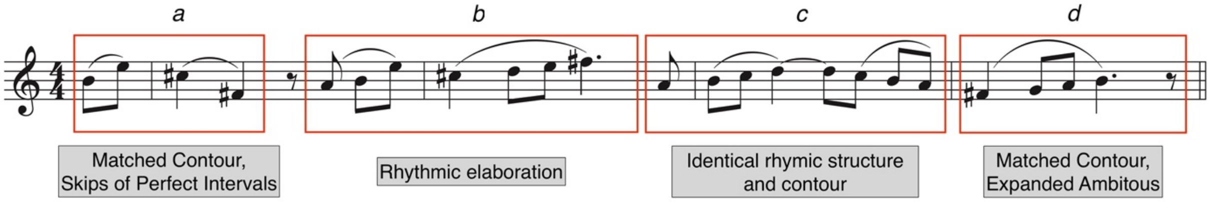

a
b
c
d
Matched Contour, Skips of Perfect Intervals
Rhythmic elaboration
Identical rhymic structure and contour
Matched Contour, Expanded Ambitous

Figure 1.6: Verne Reynolds, *Theme and Variations,* mm. 41-48, melodic reduction

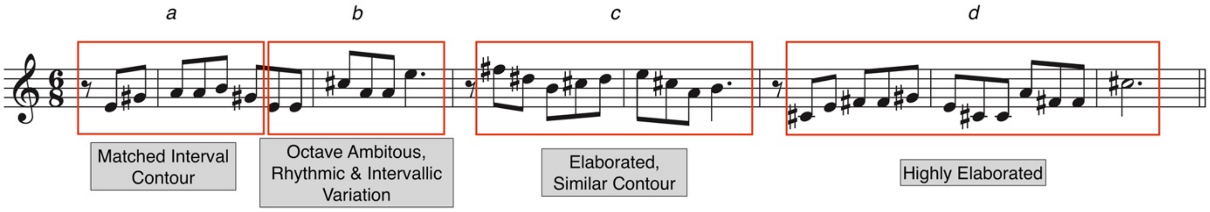
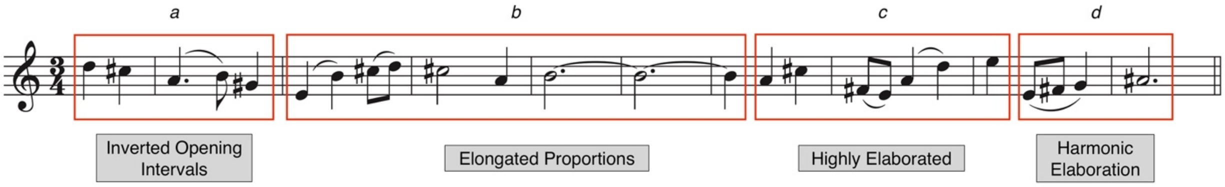
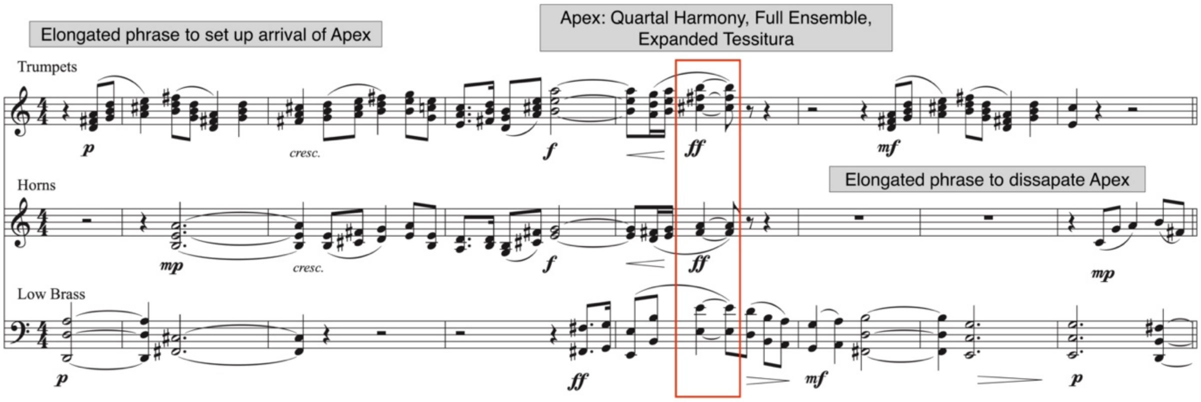

a
b
c
d
Matched Interval Contour
Octave Ambitous, Rhythmic & Intervallic Variation
Elaborated, Similar Contour
Highly Elaborated

Figure 1.7: Verne Reynolds, *Theme and Variations,* mm. 137-146, trumpet 1


a
b
c
d
Inverted Opening Intervals
Elongated Proportions
Highly Elaborated
Harmonic Elaboration

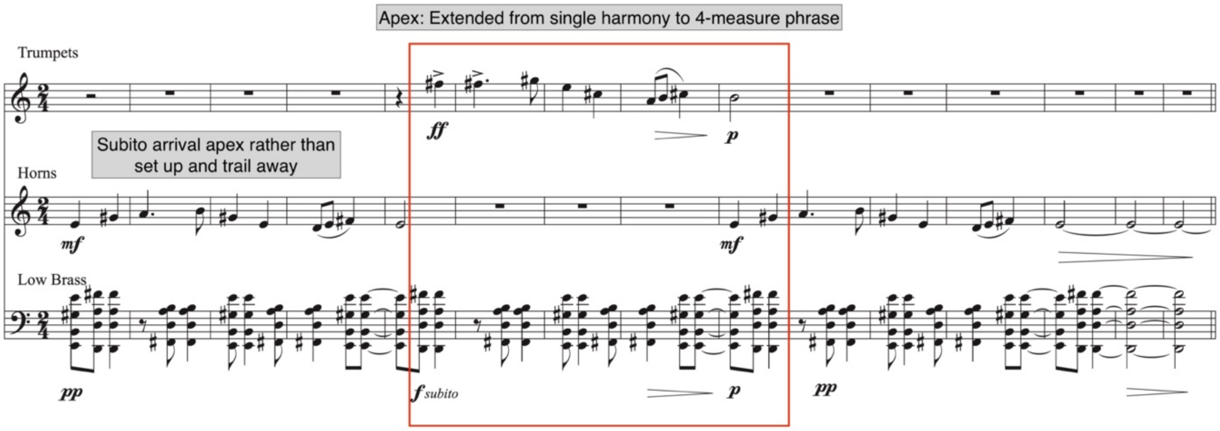
Each variation contains a central apex in its second phrasal unit corresponding to the harmonic arrival in the Theme's phrase a_2, shown in Figure 1.4. In the first variation, as seen in Figure 1.8, phrase b_2 reaches a climax in measure 24 with full brass forces, the work's highest tessitura, and a quartal harmony in the local tonic of B dorian. The sonority and homophonic rhythm of this event are juxtaposed against its approach and departure which contain parallel harmonies that elaborate the Theme's melodic and active rhythmic figuration. Additionally, the proportions of are elongated from the Theme's two-measure groups to five measures of preceding and four measures following the structural apex.

Figure 1.8: Verne Reynolds, *Theme and Variations,* mm. 25-32


Elongated phrase to set up arrival of Apex
Apex: Quartal Harmony, Full Ensemble, Expanded Tessitura
Trumpets
p
cresc.
f
ff
mf
Elongated phrase to dissapate Apex
Horns
mp
cresc.
f
ff
mp
Low Brass
p
ff
mf
p

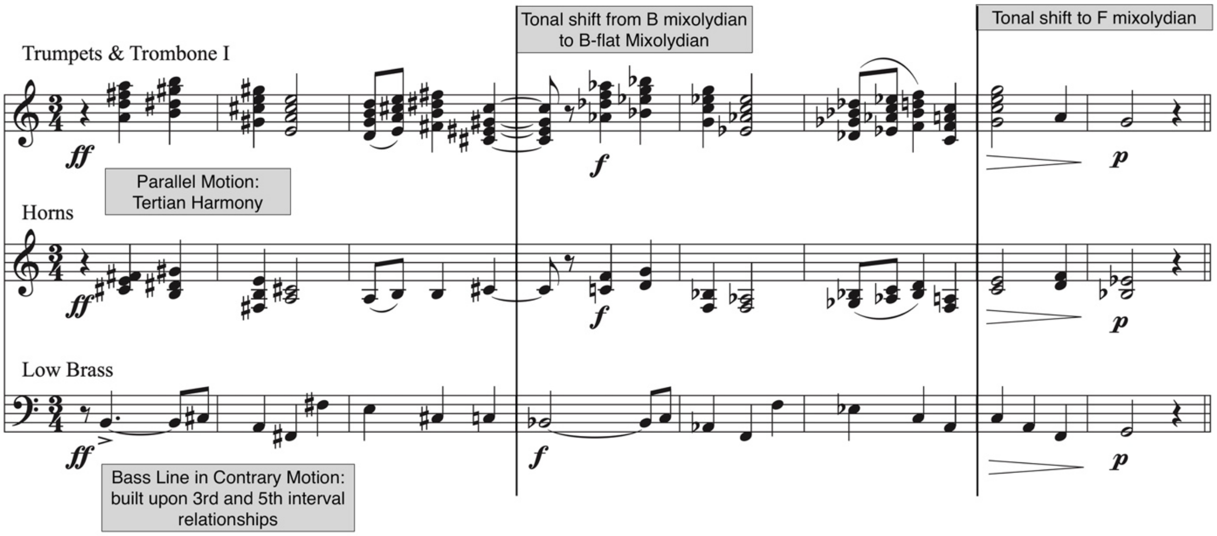
Variation 2 is three times the length of the work's first variation, nearly twice the length of the third, and the compositional center of the work. Staying within a modal language, now E mixolydian, Reynold's first introduces a lilting fanfare in phrase c_1 which is then superimposed upon a broad duple melody in c_2. Rather than follow the previous pattern of melodic approach to the apex, Figure 1.9 demonstrates how Reynolds drops in a *subito* bombastic trumpet statement in measure 98 and then immediately dissolves back to the previously heard music. The apex of Variation 2 expands the use of a single harmony at the formal climax to a complete four-measure phrase.

Figure 1.9: Verne Reynolds, *Theme and Variations,* mm. 94-108


Apex: Extended from single harmony to 4-measure phrase
Trumpets
Subito arrival apex rather than set up and trail away
Horns
Low Brass
ff
p
mf
mf
pp
f subito
p
pp

Continuing along a path of extension, the moment of arrival in Variation 3 expands to an eight-measure phrase with harmonic modulations and the widest registration of the work. Reynolds returns to the hymn-like quality of the Theme in the final variation. The apex phrase (d_2), shown in Figure 1.10, contains a quasi-organ pedal line in the low brasses which accompany homophonic chordal tall-tertian harmonies in the upper brasses. The phrase begins in B mixolydian, modulates down to B-flat mixolydian, and concludes by modulating again, this time to F mixolydian.

Figure 1.10: Verne Reynolds, *Theme and Variations,* mm. 153-160


Tonal shift from B mixolydian to B-flat Mixolydian
Tonal shift to F mixolydian
Trumpets & Trombone I
Parallel Motion: Tertian Harmony
Horns
Low Brass
Bass Line in Contrary Motion: built upon 3rd and 5th interval relationships
ff
f
p

Reynolds employs the techniques of melodic- and formal-outline variation to distort the thematic material across the duration of the piece while maintaining a sense of compositional continuity. The motivic and phrasal relationships bind the variations together despite their rhythmic and melodic differences. *Theme and Variations* is a product of the aspirations for quality brass ensemble literature by professional American musicians during the mid-twentieth century and represents the roots of its genre’s reestablishment.

Antígona: apuntes para la Sinfonía (1932) Carlos Chávez (1899-1978)

After ten years of civil war, the Mexican Revolution ended in 1920 with the establishment of a new constitutional republic and the presidential election of general Álvaro Obregón.[23] Composer Carlos Chávez, born June 13, 1899 in Mexico City, spent his adolescent years enduring the turmoil of significant social unrest and, at age 21, found himself serendipitously at the center of the new government's campaign to achieve validation via cultural nationalism.[24] Chávez was one of the first Mexican composers to musically articulate the post-Revolutionary spirit[25] by employing pre-Columbian and Aztec cultures as the basis of the country's origin mythology.[26] A large portion of Chávez's music is nationalist, however his broad compositional output combines aspects of neoclassicism, modernism, and the avantgarde.[27] While he considered himself primarily a composer, he was also a leader in the fields of conducting, publishing, politics, and education.[28]

Chávez was raised by his mother, Juvencia, who educated and cared for her seven children after her husband, Augustín, died in 1902.[29] Carlos began piano lessons with his older brother, Manuel, at age ten and at twelve went through Albert Guirad's *Traité d'Instrumentation et Orchestration* until he could read orchestral scores at the piano.[30] In 1910 he began his formal musical education with Manuel Ponce who introduced him to European Classical and Romantic piano repertoire[31] which he continued to study with Pedro Luis Ogazón between 1915-20.[32] Prior to 1921, despite never formally studying composition, he wrote a number of piano works which imitated Robert Schumann's style, reflected traditional European piano genres, and incorporated Mexican folk tunes.[33]

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[23] Robert L. Parker, *Carlos Chávez: Mexico's Modern-Day Orpheus* (Boston: G.K. Hall & Co., 1983), 4.
[24] Robert Parker, "Chávez (y Ramírez), Carlos (Antonio de Padua)," in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.05495.
[25] Parker, *Carlos Chávez: Mexico's Modern-Day Orpheus*, 1.
[26] Alejandro L Madrid, *Sounds of the Modern Nation: Music, Culture, and Ideas in Post-Revolutionary Mexico* (Philadelphia: Temple University Press, 2008), 49.
[27] Ibid., 50.
[28] Herbert Weinstock, "Carlos Chávez," in *The Music Quarterly* vol. 22, no. 4 (October 1936): 435, https://www.jstor.org/stable/738952.
[29] Parker, "Chávez (y Ramírez), Carlos (Antonio de Padua)."
[30] Parker, *Carlos Chávez: Mexico's Modern-Day Orpheus*, 2.

When Obregón was inaugurated in 1921 he allocated a large budget for the Secretariat of Public Education and appointed José Vasconcelos, a leading artistic intellectual, to the office with the task of establishing the government as the chief patron of the arts.[34] After the tumultuous civil war, the government aimed to establish renewed hegemony through a unified national identity which emphasized indigenous cultures of the pre-Conquest era and viewed the fine arts as an opportunity to crystalize a domestic aesthetic.[35] Chávez drew the attention of Vasconcelos and in 1921 was commissioned to write a ballet based upon themes of ancient Aztec cultures.[36] The work, *El Fuego Nuevo*, was never staged due to bureaucratic entanglement, but allowed Chávez access to the inner circle of Mexican cultural politics which he maintained throughout his career.[37]

Chávez, a self-declared anti-traditionalist, travelled to Germany and France, which he thought would be the center of compositional innovation, the following year in search of inspiration for cultivating Mexico's unique musical identity.[38] He was dissatisfied to find the same routine cliches which he reacted against in Mexico.[39] When he travelled to the United States in 1923, however, he fostered the beginnings of many fruitful and highly productive relationships. He developed close ties with Aaron Copland, Henry Cowell, and Edgard Varèse with whom he was active in the International Composer's Guild.[40] His associations in the US led to many collaborations including his appointment as guest conductor immediately following Arturo Toscanini's departure from the NBC Radio Orchestra in 1938, a series of concerts at the New York Museum of Modern Art's exhibition "Twenty Centuries of Mexican Art" in 1940, and the Charles Eliot Norton Professorship of Poetry at Harvard University in 1958.[41]

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[31] Weinstock, 436.
[32] Parker, "Chávez (y Ramírez), Carlos (Antonio de Padua)."
[33] Ibid.
[34] Parker, *Carlos Chávez: Mexico's Modern-Day Orpheus,* 4.
[35] Madrid, 49.
[36] Parker, *Carlos Chávez: Mexico's Modern-Day Orpheus*, 4.
[37] Parker, "Chávez (y Ramírez), Carlos (Antonio de Padua)."
[38] Weinstock, 437.
[39] Ibid.

Encouraged by the innovations of American composers, Chávez sought to create a personal style which realized his own talents in relation to Mexico's traditions rather than those of Europe.[42] Nationalism is present in his works, but his compositional output of more than 200 works embraces neoclassical and modernist elements. His harmonic language is defined by unresolved dissonances and complex sonorities built upon fourths or seconds.[43] An obsession with motivic development manifests in his conception of form which was built upon the organic development of small ideas.[44] His music employs a principle of non-repetition, modest rhythmic structures, and timbres which create unusual textures.[45] Melodies are often angular and influenced by his interest in experimental writing which utilize older scale forms and modes.[46]

Composing only accounted for a portion of Chávez's professional life. He served as conductor for the Orquesta Sinfónica de Mexico (1925-46), the Orquesta Sinfónica Nacional (1947-49), and guest conducted throughout Europe, Latin America, and the US.[47] In December 1928 he was appointed as the director of the Conservatorio Nacional de Música, a position he held until 1934. He also held various government appointments including the chief of the department of fine arts in the Secretariat of Public Education (1933-34) and director of the Instituto Nacional de Bella Artes (1947-52). Additionally, he actively wrote about music and its place within the cultural milieu of Mexico and created the journal *Música* with other progressive composers as a platform for artistic discourse.[48] His later years were spent devoted to composition although he continued to serve in various artistic leadership roles both in the public and private spheres.[49]

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[40] Parker, "Chávez (y Ramírez), Carlos (Antonio de Padua)."
[41] Ibid.
[42] Weinstock, 436.
[43] Madrid, 64.
[44] Julián Orbón, "Carlos Chávez's Symphonies," trans. Leonora Saavedra, *Carlos Chávez and His World*, ed. Leonora Saavedra (Princeton, NJ: Princeton University Press, 2015), 67.
[45] Ibid., 69.
[46] Parker, "Chávez (y Ramírez), Carlos (Antonio de Padua)."
[47] Ibid.

Chávez received a letter dated Thursday, July 21, 1932 from theater playwright and director Celestinio Garostiza requesting incidental music for his upcoming production of Jean Cocteau's 1922 adaptation of Sophocles' *Antigone*.[50] Garostiza's urgent letter requested a rehearsal with musicians the following Monday[51] in preparation for opening night Thursday, July 28.[52] The commission requested two passages of music: one to open the play and one to cover a scene change in which the director specified, "a masked person will appear…the pause cannot be greater than three minutes. Would three or four instruments be sufficient, among them flute and drums? Could they play something like [Darius] Milhaud's *Oresteia*, if some part of that exists without text?"[53] Despite the short notice, Chávez completed six-minutes of music scored for piccolo, oboe, English horn, clarinet, muted trumpet, harp, suspended cymbal, and tenor drum and conducted the premiere at the Tetro Orientacíon in Mexico City.

Sophocles' Athenian tragedy *Antigone* was first performed in 441 BCE and is the final play of the Three Theban Plays which depict the fate of the city of Thebes and Antigone's father

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[48] Parker, "Chávez (y Ramírez), Carlos (Antonio de Padua)."
[49] Ibid.
[50] Chelsea Rebecca Burns, "Listening for Modern Latin America: Identity and Representation in Concert Music, 1920-40," (PhD, diss., University of Chicago, 2016),194.
[51] Ibid., 194.
[52] Parker, "Chávez (y Ramírez), Carlos (Antonio de Padua)."
[53] Burns, 196.

Oedipus Rex.[54] The drama follows the eponymous princess as she attempts to perform burial rites for her slain brother, Polynices, against the wishes of her uncle, King Creon. Disobeying his orders, Antigone is arrested and walled in a cave to die, however the prophet Tiresias implores Creon to release his niece or else the gods will cast Thebes into ruin. The king repents but is too late, and when the cave is opened, he discovers that Antigone has hanged herself. Creon's son and Antigone's betrothed, Haemon, kills himself in despair which drives the Queen, Eurydice, to also take her life as well.[55]

Cocteau's version, which shortens and modernizes the tragedy, was first performed in Paris at the Théâtre de l'Atelier in 1922 with scenery by Pablo Picasso, incidental music by Arthur Honegger, and costumes by Coco Chanel.[56] Gorostiza and his *Grupo Orientacíon* were sponsored by the Secretariat of Public Education and, similarly to Chávez, sought to participate in modem artistic trends while producing a unique Mexican aesthetic identity.[57] Chávez's work is structured in two brief sections: "I. Prólogo" to be performed before the play and "II. Episodio y Threno" intended for the brief scene change. For the premiere the composer wrote:

> It is a work inspired by Greek tragedy…the most elemental music materials suit this music; it cannot be grandiose. Concise and unadorned, its expression lies in its laconic nature, as the primitive is refined by virtue of its primitive nature.[58]

The composer employs non-traditional instrumentation, modal tonal centers, asymmetric meters, and a harmonic language devoid of thirds, considered dissonant in the Greek system,[59] to imitate an ancient sound world in conjunction with his stylistic elements of angular melodic contour, insistent dissonances, octave doubling, and motivic development.

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[54] Jean Cocteau, *Antigone*, trans. by Carl Wildman, in *Cocteau: Five Plays* (New York: Hill & Wang, 1961), 49.
[55] Ibid.
[56] Ibid., 49.
[57] Carlos Chávez, *Antígona: Apuntas para la Sinfonía* (New York: Carlanita Music Company, 1932).
[58] Ibid.
[59] Ibid.

The formal structure of Chavez's *Antígona* unfolds as a series of short phrases each defined by a combination of tempo, orchestration, motives, and modal center. As shown in Figure 1.11, phrases are sometimes linked by motivic relationship, but of the ten unique phrases only the first two repeat.

Figure 1.11: Formal Chart for *Antígona: Apuntes para la Sinfonía* by Carlos Chávez

I. Prólogo

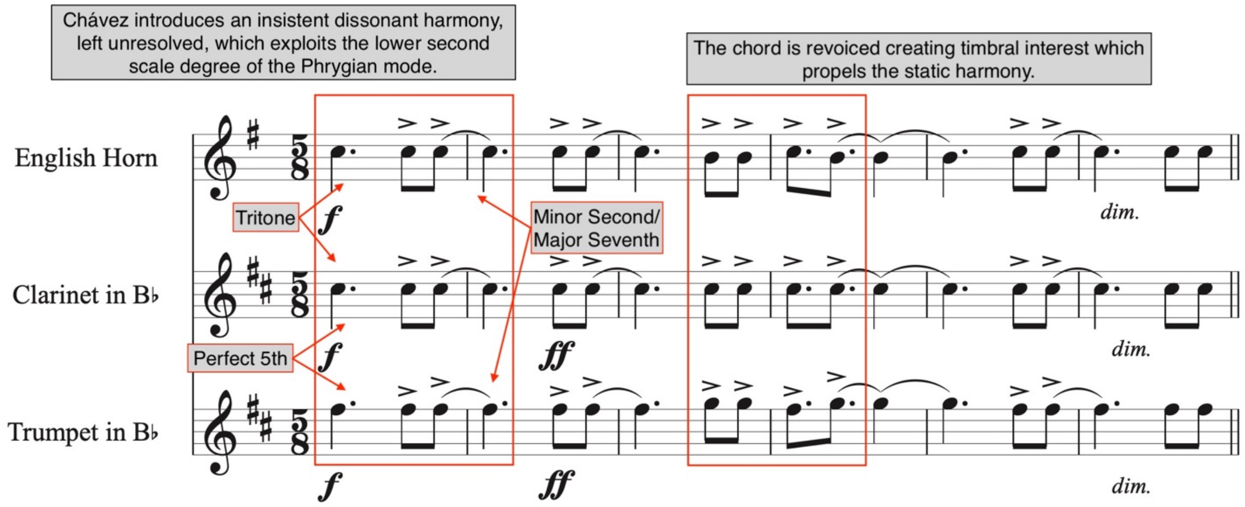
Phrase	*Measures*	*Tonal Center*	*Tempo*
1	1-12	E Phrygian	♪=104
2	13-19		♪=84
3	20-23		
4	24-29		♪=80
5	30-45	B Phrygian	♩=92
6	46-52		♩=69
7	53-61		♪=96

II. Episodio y Threno

Phrase	*Measures*	*Tonal Center*	*Tempo*
8	1-8	B Phrygian	♩=112
1'	9-15	E Phrygian	♪=96
9	16-26	A Phrygian	♪=84
2'	27-31		♪=76
10	32-35	E Phrygian	♩=46

Chávez drew upon his familiarity with Ancient Greek modal practices, which he taught at the Conservatorio, and exclusively used the Phrygian mode in key areas which follow the Western relationship of tonic (E), subdominant (A), and dominant (B). The Greek modes were developed over centuries and codified between the sixth and fourth centuries BCE most notably by Aristoxenus of Tarentum; Pythagoras; and Terpender, also known as Olympus.[60] The scales are composed by combining two tetrachords, or sets of four pitches, of varying intervals and spanned an ambitus of an octave or seventh.[61] Ancient theorists standardized a sequence of intervals which allowed instruments to perform all of the modes; this was called the "Greater Perfect System."[62] The basic and most common of these modes were Dorian, Phrygian, and Lydian.[63] As shown in Figure 1.12, Chávez exploits the dissonant possibilities of the lowered second scale degree of the Phrygian mode which creates a minor second between the first scale degree and a tritone against the fifth.

Figure 1.12: Carlos Chávez, *Antígona*, I. Prólogo, mm. 30-34


Chávez introduces an insistent dissonant harmony, left unresolved, which exploits the lower second scale degree of the Phrygian mode.
The chord is revoiced creating timbral interest which propels the static harmony.
English Horn
Clarinet in B♭
Trumpet in B♭
Tritone
Perfect 5th
Minor Second/ Major Seventh
f
ff
dim.

Ancient Greek poetry and music were inextricably linked. Text was sung and sometimes accompanied by the lyre, thus the genre "lyric poetry."[64] The rhythm of the language dictated metric organization in a combination of short (˘) and long (-) feet which created phrases of uneven patterns (e.g. - ˘ ˘ - ˘ ˘ - | - | - ˘ - | -).[65] Figure 1.13 demonstrated how *Antígona* imitates the irregular patterns of stress by setting the song-like passages in asymmetrical meter and rhythmic patterns.

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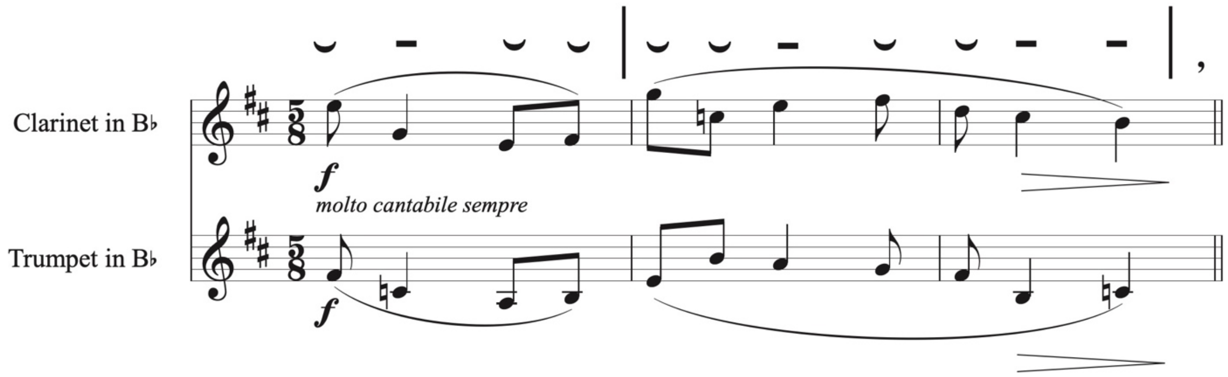
[60] Spencer A. Klavan, *Music in Ancient Greece: Melody, Rhythm and Life* (London: Bloomsbury Academic, 2021), 104.
[61] Ibid., 105.
[62] Ibid.
[63] Ibid.
[64] Ibid., 19.

Figure 1.13: Carlos Chávez, *Antígona*, II. Episodio y Threno, mm. 16-18 poetic stress



All the work's phrases are lyrical in nature except one dance episode (Phrase 5) which maintains the basic rhythmic structure of eighth and quarter notes. The phrase includes a basic dance drum pattern which accompanies the piccolo and oboe dance motive and Phrygian dissonant chord motive outlined above in Figure 1.14.

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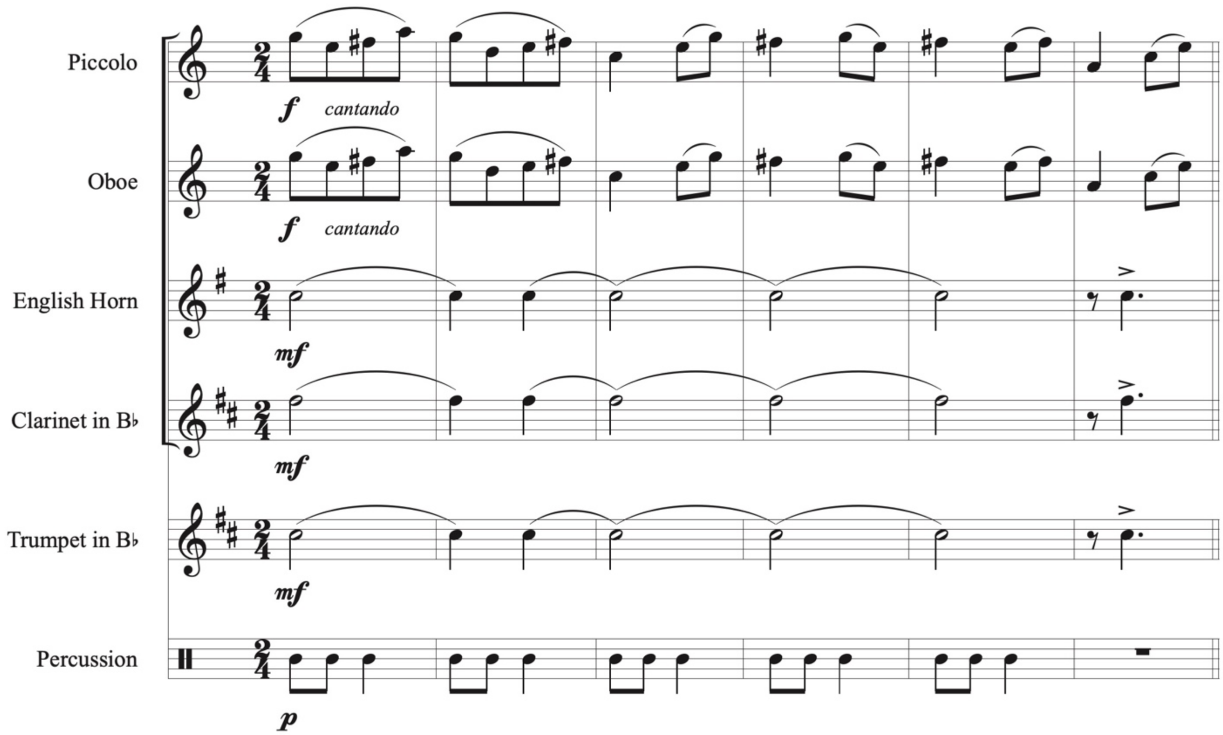
[65] Warren D. Anderson, *Music and Musicians in Ancient Greece* (Ithaca, NY: Cornell University Press, 1994), 98.

Figure 1.14: Carlos Chávez, *Antígona*, I. Prólogo, mm. 35-40


Piccolo
Oboe
English Horn
Clarinet in B♭
Trumpet in B♭
Percussion
f
cantando
f
cantando
mf
mf
mf
p

Chávez chose an unconventional instrumentation to reproduce the timbres of Ancient Greek music. The lyre, or *lura*, which can be seen on the urn in Figure 1.15, was the most common of plucked stringed instruments from antiquity and consisted of a tortoiseshell soundbox with a series of tuned strings.[66] The harp in Chávez's composition, as seen in Figure 1.16, emulates the Greek lyre and functions to either outline the mode (e.g. mm. 46-52) or add percussive emphasis (e.g. mm. 53-61).

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[66] Kalvan, 20-21.

Figure 1.15: Berlin Painter, *Terracotta amphora*, ca. 490 BCE

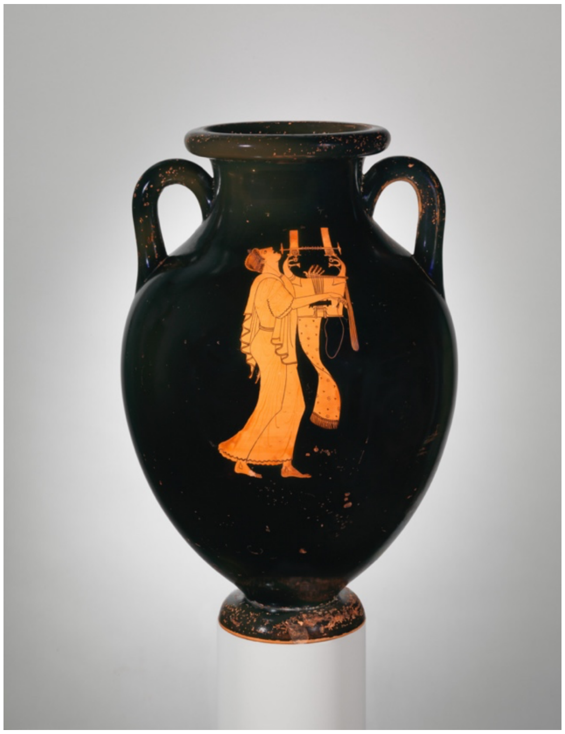
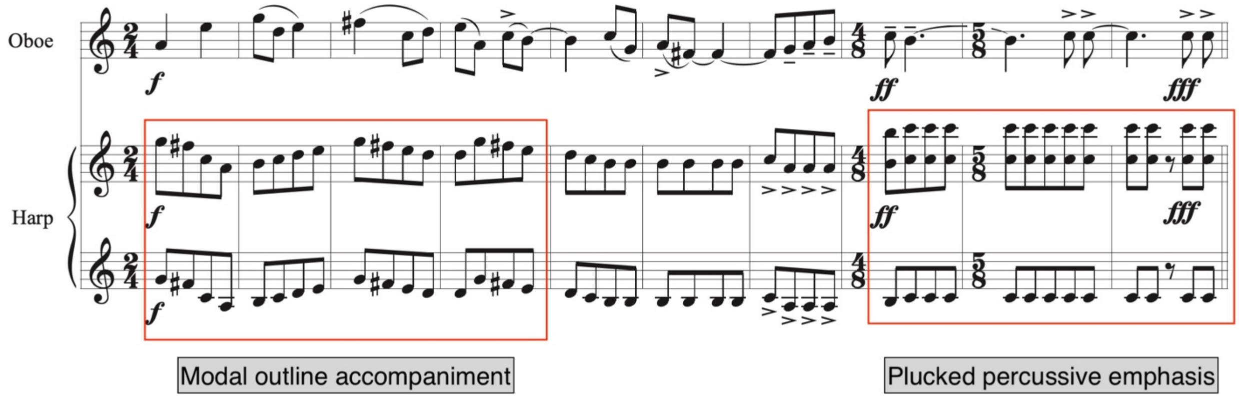
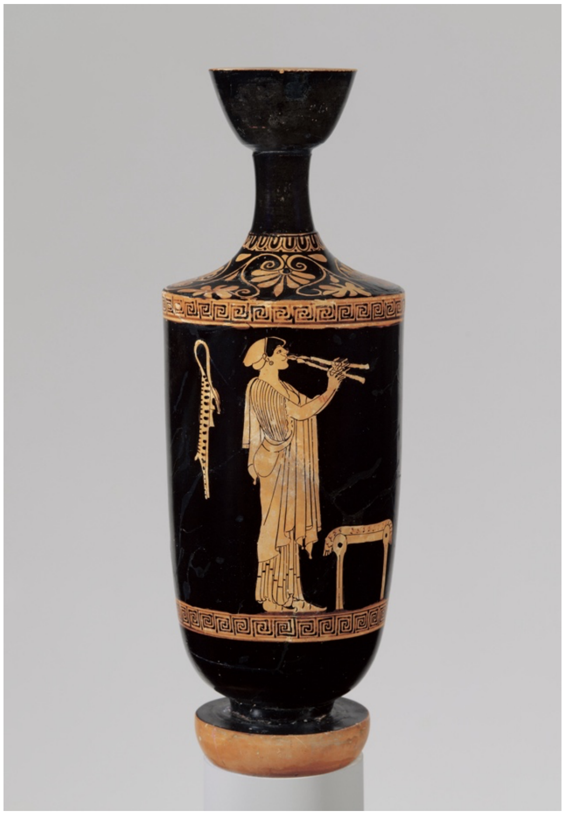


Figure 1.16: Carlos Chávez, *Antígona*, I. Prólogo, mm. 46-55


Oboe
Harp
f
ff
fff
Modal outline accompaniment
Plucked percussive emphasis

The *aulos*, Greek for "pipe" and seen on the pottery in Figure 1.17, refers to any number of wind instruments made from wood, horn, bone, metal, or clay. These instruments were played with a double reed mouthpiece and split into two pipes each with its own set of fingerholes to change pitches.[67] The oboe, English horn, clarinet, and muted trumpet are combined to create a variety of doublings in *Antígona* to emulate the aulos. Melodic lines are either doubled at the octave as seen above in Figure 1.14 (mm. 35-40) or set polyphonically as in Figure 1.13 (mm. 16-18). Finally, the piccolo mimics the *syrinx*, more commonly known as "panpipes," a row of reed pipes which were aligned next to one another in order of increasing length.[68]

Figure 1.17: Brygos Painter, *Terracotta*, ca. 480 BCE



Chávez blends the elements of instrumentation, modality, and rhythm to depict an imagined ancient sound. However, the refined motivic development which develops formal architecture epitomizes his personal style. Phrases consist of motivic repetition either exact, such as in Phrase 3, Figure 1.18, or in rhythmic transformation as in Phrase 2, Figure 1.19.

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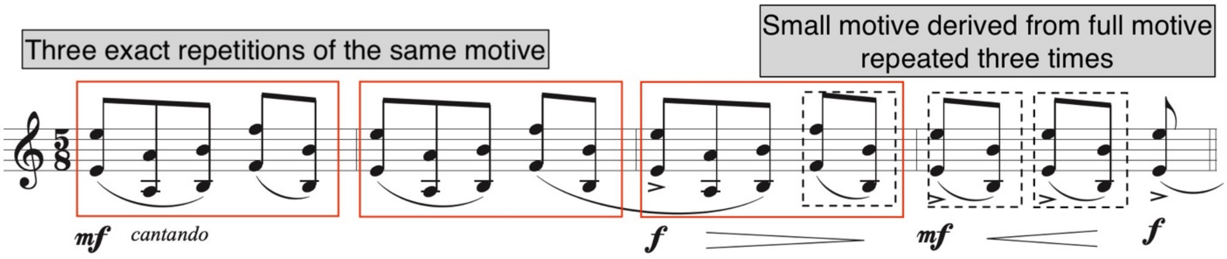
[67] Kalvan, 24.

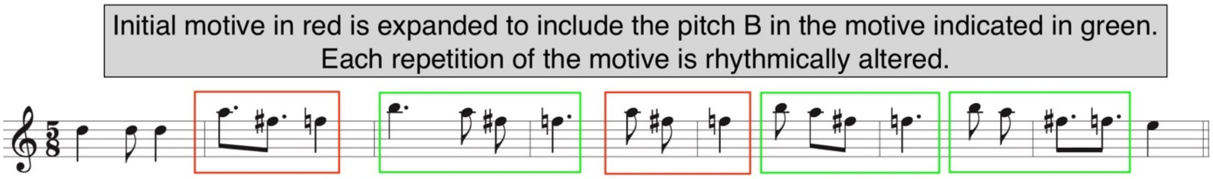
[68] Ibid., 31.

Figure 1.18: Carlos Chávez, *Antígona*, I. mm. 20-23, English horn and trumpet


Three exact repetitions of the same motive

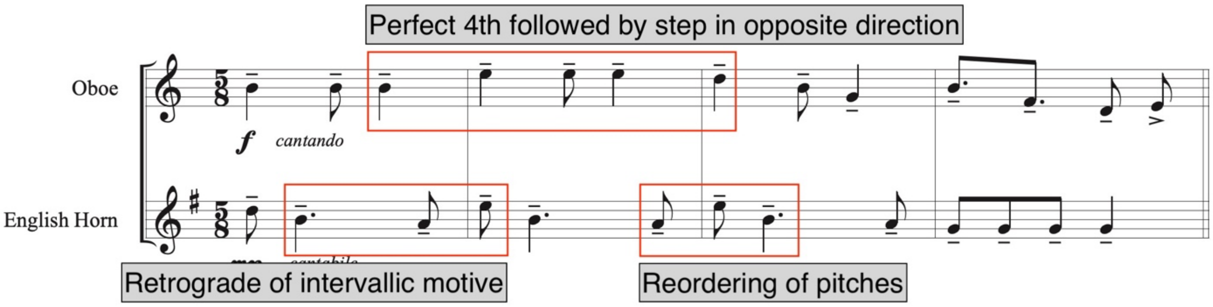
Small motive derived from full motive repeated three times

Figure 1.19: Carlos Chávez, *Antígona*, I. mm. 13-19, Piccolo and clarinet


Initial motive in red is expanded to include the pitch B in the motive indicated in green. Each repetition of the motive is rhythmically altered.

The basic intervallic motive that occurs throughout the work is a leap of a perfect fourth or fifth followed by a step in the opposite direction. This pattern is outlined on a microscopic level in the opening phrase, Figure 1.20, but also macroscopically outlines the architectural key centers of E, B, and A Phrygian.

Figure 1.20: Carlos Chávez, *Antígona*, I. mm.1-4


Perfect 4th followed by step in opposite direction

Retrograde of intervallic motive

Reordering of pitches

The year following the Gorostiza production, Chávez used the incidental music as the germinal material for his *Sinfonía de Antígona*. The orchestral work augments the instrumentation to include alto flute, heckelphone, two additional clarinets, bassoons, eight horns, two additional trumpets, tuba, supplementary percussion, and strings.[69] Nearly all the original music is retained in addition to two new musical episodes, as outlined in Figure 1.21.

Figure 1.21: Formal outline with rehearsal numbers of *Sinfonía de Antígona* by Carlos Chávez

	6	*16*	*27*
New Material	I. Prólogo	**New Material**	II. Episodio y Threno

The original manuscript of the incidental music was edited and published by Eugenio Delgado in 2000 and included the subtitle *Apuntes para la Sinfonía,* Spanish for “Sketches of the Symphony.”[70] Both the chamber and orchestral versions were written during a period when the composer was exclusively writing nationalist music[71] and demonstrate a shift in Chávez’s compositional philosophy which sought to establish a Mexican musical style broader than the country’s myth of origin.

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[69] Carlos Chávez, *Sinfonía de Antígona* (New York: G. Schirmer, 1948).

[70] Chávez, *Antígona: Apuntas para la Sinfonía*.

[71] Burns, 197.

All Set (1957) Milton Babbitt (1916-2011)

The intellectual climate and musical interest of Milton Babbitt's youth cultivated the artistic, theoretical, and philosophical innovations of his career as a composer, educator, and scholar. Babbitt was born May 10, 1916 in Philadelphia, Pennsylvania and raised in Jackson, Mississippi in an academic environment by his father, an actuary, who encouraged Milton and his brother Albert to pursue mathematics.[72] Both Babbitt children became professional mathematicians, but Milton Babbitt is best known for his expansion of Arnold Schoenberg's twelve-tone compositional techniques.[73]

Babbitt's musical education began at age 4 with the violin, and, shortly after, he began studying the clarinet and saxophone.[74] Upon graduating high school in 1931, he showed prowess in jazz performance and composing in popular styles and began studies in mathematics at the University of Pennsylvania the following fall.[75] He transferred to New York University to concentrate on music composition where he immersed himself within the intellectual milieu of the city and encountered philosophers such as Sidney Hook and James Wheelwright.[76] In 1938, Babbitt began compositional studies with Roger Sessions at Princeton University where he simultaneously enrolled and joined the music faculty.[77]

At the outbreak of World War II, the following years forced Babbitt to pause his compositional activities as he split his time between conducting mathematical research in Washington, D.C. for the federal government and serving on the mathematics faculty at

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[72] David Ewin, *Composers of Tomorrow's Music* (New York: Dodd, Mead & Company, 1971), 130.
[73] Elaine Barkin, revised by Martin Brody and Judith Crispin, "Babbitt, Milton (Byron)," in *Grove Music Online* (Oxford: Oxford University Press, 2013), https://doi.org/10.1093/gmo/9781561592630.article.A2256107.
[74] Barkin.
[75] Ibid.
[76] Ibid.
[77] Ibid.

Princeton.[78] It was during this period, however, that the composer-mathematician first started to write about the evolution of his musical theories surrounding the twelve-tone system.[79] In 1946, he submitted his PhD dissertation *The Function of Set Structure in Twelve-Tone Systems*, the first formal and systematic investigation of Arnold Schoenberg's techniques, which was rejected by the Princeton music department. It wasn't until 1992 when the paper was resubmitted on Babbitt's behalf that it was accepted, and the dean of Princeton's graduate college, Theodore Ziolkowski, recognized that the "dissertation was so far ahead of its time it couldn't be properly evaluated."[80]

Babbitt pioneered a new direction in musical thinking during the post-WWII era by utilizing other disciplines such as philosophy, linguistics, and mathematics in his discussion of compositions and expression.[81] One of his primary focuses was upon serial theory which extended Arnold Schoenberg's technique of "combinatorial" sets of pitches to include musical elements such as register, orchestration, rhythm, and dynamics.[82] His writings on the subject established much of the language that is still utilized to discuss serial compositional techniques. Some of these influential articles include "Some Aspects of Twelve-Tone Composition" (1955), "Twelve-Tone Invariants as Compositional Determinants" (1960), and "Set Structure as a Compositional Determinant" (1961). Utilizing his mathematical ingenuity, he investigated the methods in which musical elements, given assigned numerical values, could be manipulated through process of aggregation, reordering, and arithmetical formulation.

One procedure of twelve-tone composition which Schoenberg and his pupils, notably Alban Berg and Anton Webern, utilized was hexachordal combinatoriality, a pitch set's ability to create complimentary hexachords (series of six pitches) through inversion, retrograde, and retrograde inversion. Babbitt advanced the technique by defining levels of combinatoriality as outlined in his 1987 Madison Lectures:

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[78] Ewin, 131.
[79] Ibid.
[80] Barkin.
[81] Ibid.
[82] Ibid.

> All-combinatoriality is the capacity of a collection to create aggregates with forms of itself and its complement under both transposition and inversion. Such a collection is all-combinatorial in that it possesses all four types of combinatoriality: prime-, inversional-, retrograde-, and retrograde-inversional-combinatoriality. Of the six all-combinatorial hexachords, three are "first-order" in that they can create aggregates at only one transpositional level for each of the four traditional orderings of the series: prime, inversion, retrograde, and retrograde-inversion. Of the remaining three hexachords, one is "second-order" (creating aggregates at two levels), one is "third-order" (creating aggregates at three levels), and one is "sixth-order" (creating aggregates at six levels).[83]

Babbitt's work for jazz ensemble, *All Set*, demonstrates many of the composer's new theories of serial techniques. The piece was commissioned by Gunther Schuller for the 1957 Brandeis University Creative Arts Festival which had the theme of jazz music.[84] The work is composed for a small jazz ensemble of alto and tenor saxophones, trumpet, trombone, double bass, drum set, vibraphone, and piano. *All Set* exemplifies the genre of "Third Stream" composition, a new term introduced by Schuller during a speech at this festival to represents works which fuse elements of mainstream jazz with mainstream Western art music creating a "third stream" of musical thought.[85] Composers such as Claude Debussy, George Gershwin,

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[83] Milton Babbitt, *Words About Music* (Madison, WI: The University of Wisconsin Press, 1987), 193.

[84] Milton Babbitt, *All Set* (New York: Associated Music Publishers, Inc., 1963).

[85] Gunther Schuller, "Third stream," in *Grove Music Online* (Oxford: Oxford University Press, 20130, https://doi.org/10.1093/gmo/9781561592630.article.A2252527.

Darius Milhaud, and Igor Stravinsky had drawn upon elements of jazz within their composition but "Third Stream" sought to create an equal fusion between jazz and art music.[86] Schuller wrote that, "composers of Western art music can learn a great deal from the rhythmic vitality and swing of jazz, while jazz musicians can find new avenues of development in the large-scale forms and complex tonal systems of classical music."[87]

Babbitt merged aspects of contemporary bebop style with his serial techniques in *All Set*. The work represents a transition in his compositional voice as he began to define new serial techniques and break from the conventions of typical trichordal arrays established by Schoenberg.[88] Babbitt employs the second-order hexachord all-combinatorial set (012678:2459te) as the principle compositional material, hence the title of the work; its primary form, first heard in the brass between measures 1-8, is [045e6t731298]. A full matrix is provided in Figure 1.22 which outlines P_0H_1 (Prime 0, Hexachord 1), marked in red, and its eight combinatorial compliments, marked in blue, which are R_0H_1, R_6H_1, I_1H_1, I_7H_1, P_3H_1, P_9H_1, RI_4H_1, and $RI_{10}H_1$.

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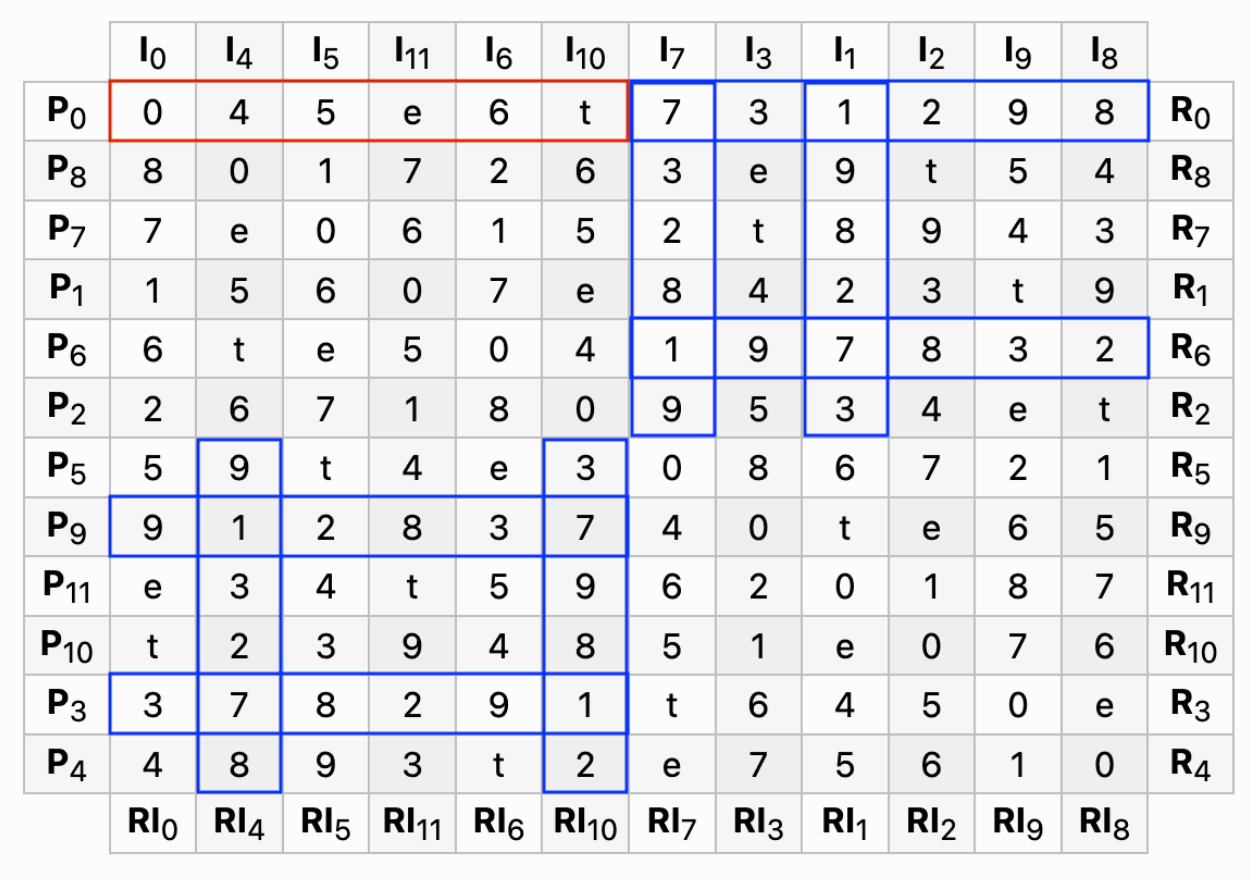
[86] Schuller.

[87] Ibid.

[88] Zachary Bernstein, *Thinking in and about music: analytical reflections on Milton Babbitt's music and thought* (New York: Oxford University Press, 2021), 87.

Figure 1.22 Serial Matrix for *All Set* by Milton Babbitt



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

The properties of an all-combinatorial second-order hexachord set allows for what Babbitt identified as "a very special kind of double counterpoint."[89] As outlined in Figure 1.23, the combinatoriality dictates that the pitch content of P_0H_1 and I_7H_1, as well as that of the second groups in each set, creates an aggregate. Each group also contains unique intervallic content (i.e., the first <135> and the second <79e>), however an octave transposition of a hexachord group would result in identical intervals. Babbitt said of this characteristic that "the registerally defined intervals of one hexachord express the structurally defined intervals of the other hexachord – a real double counterpoint."[90]

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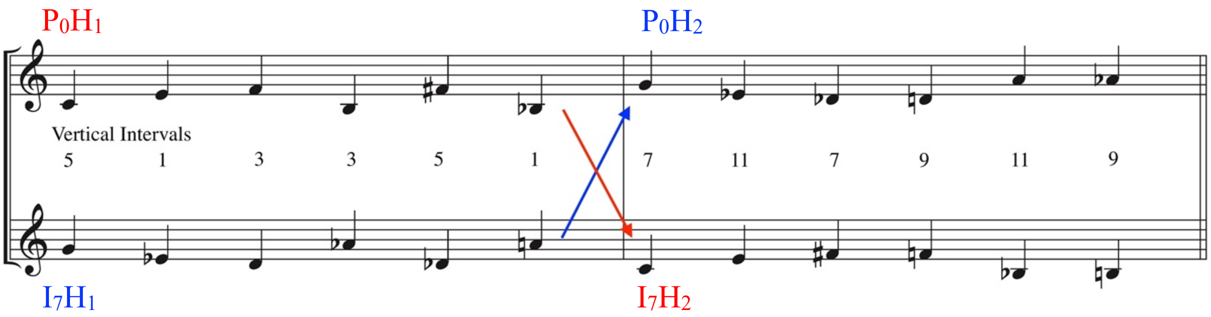
[89] Babbitt, *Words About Music*, 115.

[90] Ibid., 116.

Figure 1.23: Hexachordal Double Counterpoint in Milton Babbitt's *All Set*



Typically, the hexachords appear as unordered groups throughout *All Set*, meaning that pitches do not sound in the linear patterns outlined in Figure 1.22. Babbitt employs additional hexachords including the symmetrical hexachords (02468t), (014589), and (012345). Form is defined by hexachordal aggregation, and the various hexachords act similar to tonal centers. The piece is cast in a large three-part structure with a coda, and each larger section is bifurcated, as outlined in Figure 1.24, by hexachords within local modules.

Figure 1.24: Formal Structure of *All Set* by Milton Babbitt

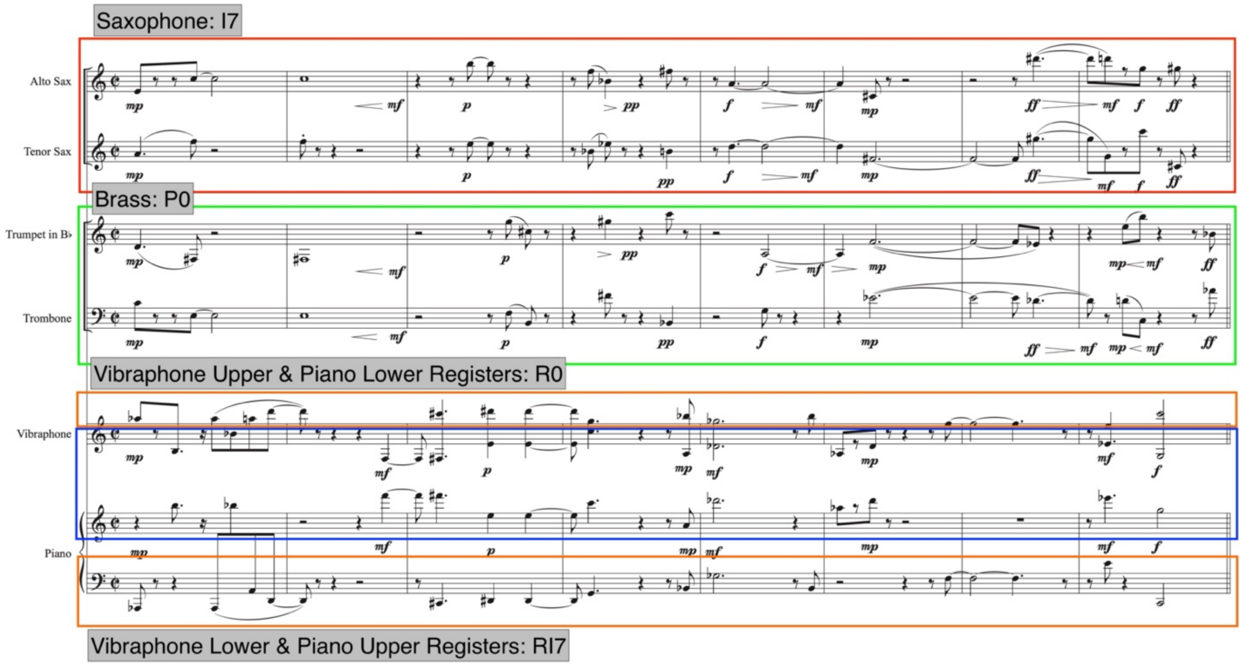
Formal Area	**"Key Area"**	**Measures**	**Length**	**Instrumentation**								**Row/Hexachord**
				as	**ts**	**tpt**	**tbn**	**db**	**dr**	**vb**	**pn**	
A1	Ordered Row Forms	1-8	8	x	x	x	x			x	x	P_0, I_7, R_0, RI_7
		9-19	11					x	x		x	R_0
		20-26	7		x			x	x		x	I_7, R_e
		27-40	14	x	x			x	x		x	RI_9
		41-46	6	x	x			x	x	x	x	RI_t
		47-55	9				x	x	x		x	RI_t, (012345)
		56-64	9	x		x		x	x		x	P_3
		65-72	8		x	x		x	x	x	x	R_0
		73-75	3	x				x	x	x	x	RI_t, R_e
		76-79	4			x	x	x	x	x	x	RI_e
A2	Unordered (012456) Hexachords	80-88	9		x	x	x	x	x	x	x	All Hexachords
		89-100	12	x	x	x	x	x	x	x		All Hexachords

		101-107	7	x		x		x	x	x	x	All Hexachords
		108-115	8	x		x		x	x	x		All Hexachords
		116-122	7	x				x	x	x		All Hexachords
		123-128	6	x		x	x	x	x		x	All Hexachords
		129-135	7	x			x	x	x	x		All Hexachords
	Introduction of new Hexachords, Harmonic Rhythm Accel to "Cad"	136-141	6	x				x	x		x	(014589)
		142-150	9	x	x			x	x	x		I_7, (023457)
		151-160	10	x			x	x	x			(023457), (014589)
	Cadential Ord. Row	161-168	8	x					x			R_0
B1	Ordered Rows Intro New Formal Area	169-176	8		x	x				x		R_6, R_e, I_1, P_6
		177-183	7				x		x			RI_7
	New Unordered Symmetrical Hexachords	184-190	7		x	x	x	x	x	x	x	(02468t)
		191-199	9		x	x	x	x	x	x	x	(026) trichords
		200-203	4		x		x	x	x			(02468t)
		204-212	9		x		x	x	x	x		(02468t), (012378
		213-220	8	x	x	x	x	x	x	x	x	(012378)
	Simultaneous Hexachord at Transition	221-231	11	x	x	x	x	x	x	x	x	(012345), (023457), (014589), (012345)
B2	(014589) Area	232-235	4	x			x	x	x	x	x	(014589)
		236-239	4				x	x	x	x	x	(014589)
		240-242	3				x	x	x	x		(014589)
		243-254	12		x		x	x	x	x	x	(014589), (012345)
		255-258	4		x			x	x	x		(014589)
		259-265	7			x		x	x	x	x	(014589), (012345)
	Cadential New Hex.	266-269	4					x	x	x		new asymmetrical hexachords
C1	Ordered Rows Intro New Formal Area	270-277	8	x			x				x	RI_4, R_3, I_t, P_9
		278-279	2		x				x			P_9
	(012456), New Asymmetrical Row Simultaneously	280-285	6	x	x			x	x			(012378), (012678)
		286-288	3	x	x	x			x			(012378, 012678)
		289-290	2	x	x	x		x	x	x		(014589)
		291-295	5		x	x		x	x			(012378), (012678)
		296-303	8		x	x	x	x	x		x	(012378), (014589)
		304-307	4	x	x		x	x	x			(014589), (012378)

		308-311	4	x	x		x	x	x		x	(014589)
C2	All Original (012456) Unordered Hexachords	312-317	6	x	x		x	x	x	x	x	RI4
		318-321	4	x		x	x	x	x	x	x	All Hexachords
		322-328	7	x	x	x	x	x	x			All Hexachords
		329-334	6		x	x	x	x	x			All Hexachords
		335-338	4	x		x	x	x				All Hexachords
		339-343	5	x	x	x		x	x		x	(014589)
		344-349	6	x		x	x	x	x			(014589)
		350-358	9			x		x	x		x	All Hexachords
		359-362	4			x	x	x	x	x		All Hexachords
		363-367	5			x		x	x	x		All Hexachords
		368-373	6(4+2)			x		x	x	x		All Hexachords
	Rhythm Section Soli	374-380	7					x	x			All Hexachords
		381-387	4					x	x			All Hexachords
		385-388	4					x	x			All Hexachords
		389-395	7(5+2)					x	x			All Hexachords
Coda	Return of "A" Rows, Close "C" Rows	396-402	7	x	x	x	x	x	x	x	x	P_0, P_3, R_0, R_9, I_7, RI_7, RI_t
		402-413	11	x	x	x	x	x	x	x	x	P_0, P_3, R_0, R_9, I_7, RI_7, RI_t
	Distribution of Orchestration			32	31	31	32	55	58	33	31	

Complete simultaneous statements of ordered rows demarcate the initiation of new formal areas. Figure 1.25 shows the opening phrase of *All Set* which includes P_0 (marked in green), R_0 (marked in orange), I_7 (marked in red), and RI_7 (marked in blue); a similar technique of instrumentation is used at each introductory phrase of each formal module and the coda.

Figure 1.25: Milton Babbitt*, All Set*, mm. 1-8


Saxophone: I7
Alto Sax
Tenor Sax
Brass: P0
Trumpet in B♭
Trombone
Vibraphone Upper & Piano Lower Registers: R0
Vibraphone
Piano
Vibraphone Lower & Piano Upper Registers: RI7

In addition to serializing pitch, Babbitt serializes orchestration as seen by the distribution of orchestration in Figure 1.24; the double bass and drum set (typical bebop rhythm section) share a similar amount of phrases while all other pitched instruments appear almost equally. Babbitt had yet to formally define "Time-point Sets" when he composed *All Set*, but there is evidence within the score that he was beginning to consider how to superimpose serialized rhythmic streams onto pitch sets.[91]

The formal structure, orchestration, and rhythmic complexity also reflect characteristics of 1950s bebop style which Babbitt infuses into the work. Bebop artists such as trumpeter Dizzy Gillespie, saxophonist Charlie Parker, and pianist Thelonious Monk moved away from the predictable patterns and large instrumental forces of the previous swing era and towards complex, unexpected harmonies; small ensembles consisting of piano, drums, bass, and a few horns; asymmetrical phrases; and extended improvisations.[92] These artists performed melodies with jagged, dense rhythmic figures which stood in stark contrast to the tuneful dance tunes of the 1920s to 40s.[93] Bebop's unpredictable harmonic structures and complexity of rhythm lend themselves to Babbitt's serial techniques. Rhythmic figurations in *All Set* reflect angular jazz gestures and the post-tonal landscape feels like a forebearer to Ornette Coleman's free jazz movement of the 1960s. The distribution of orchestration also reflects extended solo moments for each instrumentalist as was typical in bebop ensembles. Milton Babbitt's *All Set* epitomizes Schuller's definition of "third stream" music as he fused elements of the era's contemporary popular jazz with the latest trends in art music.

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[91] Barkin.

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[92] Alyn Shipton, *A New History of Jazz* (New York: The Continuum International Publishing Group, Inc., 2007), 321.
[93] Ibid., 320.

Pastorale Variée dans le style ancien (1898) Gabriel Pierné (1863-1937)

The defeat of France in 1871 at the end the Franco-Prussian war rendered many political and cultural consequences for the country including over one-million casualties and losses, the German annexation of Alsace-Lorraine, the establishment of the Third Republic government, and the beginnings of Franco-German enmity.[94] The ensuing period between 1871 and the onset of World War I in 1914 was marked by relatively peaceful international relations. However, French culture during this time, later designated *La Belle Époque*, was driven by an intense national loathing of all things German, including music.[95] Wounded patriotism created a vacuum for intellectual and moral reform which fostered the rediscovery and redefinition of French cultural identity.[96]

Concerned with the lack of interest in French symphonic and chamber music, composer Camille Saint-Saëns and vocal pedagogue Romain Bussine established the *Société nationale de musique* (National Society of Music) in February 1871.[97] Alexis de Castillon, Théodore Dubois, Henri Duparc, Gabriel Fauré, Ernst Guiraud, César Franck, Jules Massenet, and Paul Taffanel were present at the inaugural meeting and established the Society's motto "Ars Gallica," which translated from Latin means "French Art." The Society devoted itself to the promotion of instrumental French music, current and past.[98]

One acolyte for these cultural figures was conductor, organist, and composer Gabriel Pierné who was born in Metz, France August 16, 1863.[99] A child of musical parents, his father, a professional baritone, provided Gabriel with singing lessons while his mother taught him piano.[100] After the annexation of Lorraine, the Piérnes fled to Paris where Gabriel was enrolled in the *Conservatoire*. He studied composition with Massenet, harmony with Émile Durand, and organ with Franck. Massenet instilled Pierné with a desire for lightness of touch and beauty of melody.[101] As a member of Franck's inner circle of pupils, Pierné succeeded him in 1890 as the organist at Saint-Clotilde, a post he held until 1898.[102] As a composer, Franck influenced Pierné to consider a sense of architecture, a taste for religiously inspired music, and the high consciousness of art.[103]

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[94] Vincent Giroud, *French Opera: A Short History* (New Haven, CT: Yale University Press, 2010), 195.
[95] Guy Hartropp, *Paris: A Concise Musical History* (Wilmington, DE: Vernon Press, 2017), 107.
[96] Giroud, 195.
[97] Hartropp, 107.
[98] Ibid., 108.
[99] Georges Masson, "Pierné, (Henri Constant) Gabriel," in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.21712.

Despite composing throughout his life, Pierné's principal occupation was that of conductor. In 1903, he was appointed as the deputy conductor of the *Concerts Colonne*, a French symphonic orchestra established by Édouard Colonne in 1873. When Colonne died in 1910, Pierné was promoted to the principal conductor and remained its president and director until 1933.[104] He conducted works by Mozart, Beethoven, Berlioz, as well as many contemporary French composers such as Debussy and Ravel. In 1910, at the invitation of Sergei Diaghilev, he conducted the premiere of Igor Stravinsky's *L'Oiseaux de feu* with *La Ballet Russes*.[105] His concert seasons included upwards of 48 programs each year, but he set aside time to compose while he and his family took their summer sojourns in Brittany.[106]

The *Concerts Colonne* became Pierné's observation post where he surveyed and absorbed contemporary music trends.[107] His compositional output can be divided into three periods. The first (1880-1906) includes many piano works and light early operas, the second (1906-1916) includes larger vocal-orchestral frescos and a triptych of oratorios while the final period (1916-1936) includes chamber music, ballet scores, and his most well-known work *Divertissement sur un thème pastoral* (1931).[108] His compositions tend to be Classic in form yet modern in spirit and represent a transition between the conservatism of Franck and the innovations of Debussy, Ravel, and Gabriel Fauré.[109].

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[100] Masson, "Pierné, (Henri Constant) Gabriel."
[101] Ibid.
[102] Ibid.
[103] Ibid.
[104] Ibid.
[105] Ibid.
[106] Ibid.
[107] Ibid.

Pierné prescribed to the principles of "Ars Gallica" by promoting a contemporary style through the formal techniques of Baroque and Classic French traditions. This duality is clear in *Pastorale Variée dans le style ancien* (1893), a wind septet, scored for flute, oboe, clarinet, trumpet, horn, and pair of bassoons, which the composer transcribed from his solo piano piece of the same title. The composition is a theme and variations in the style of French Baroque keyboard music. The orchestration, however, reflects a trend initiated in 1879 by Paul Taffanel and his *Société de musique de chambre pour instruments à vent* (Wind instrument Chamber Music Society).[110] Inspired by his participation in the National Society of Music, Taffanel's mission was to resurrect notable chamber wind compositions while promoting new music exclusively for wind musicians to demonstrate their expressive capabilities could rival string musicians.[111] The new wind society inspired the establishment of other similar ensembles including: the Barrère Ensemble of Wind Instruments of New York City, the Longy Club of Boston, and the *Société modern des instruments à vent* of Paris. While it is unclear if *Pastorale Variée* was written specifically for one of these groups, Pierné's short work belongs within the lineage of Taffanel's objective.

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[108] Masson, "Pierné, (Henri Constant) Gabriel."

[109] Marc Wood, "Pierné in Perspective: Of Church and Circus," *The Musical Times* 143, no. 1878 (spring 2002), 47, https://www.jstor.org/stable/1004422.

[110] Danielle Gaudry, "Early Chamber Wind Ensembles," *Canadian Winds* (autumn 2012), 22.

[111] Ibid.

Pastorale Variée begins with an *andantino* statement of the theme scored for flute and clarinet. The first four measures shown in Figure 1.26, played by solo flute, are echoed at *pianissimo* by the clarinet, a call and response effect reminiscent to the English horn-oboe echo of Hector Berlioz's *Symphonie Fantastique,* III. Scènes aux champs (1830) in Figure 1.27.

Figure 1.26: Gabriel Pierné, *Pastorale Variée dans le style ancient, "*Andantino," mm. 1-8

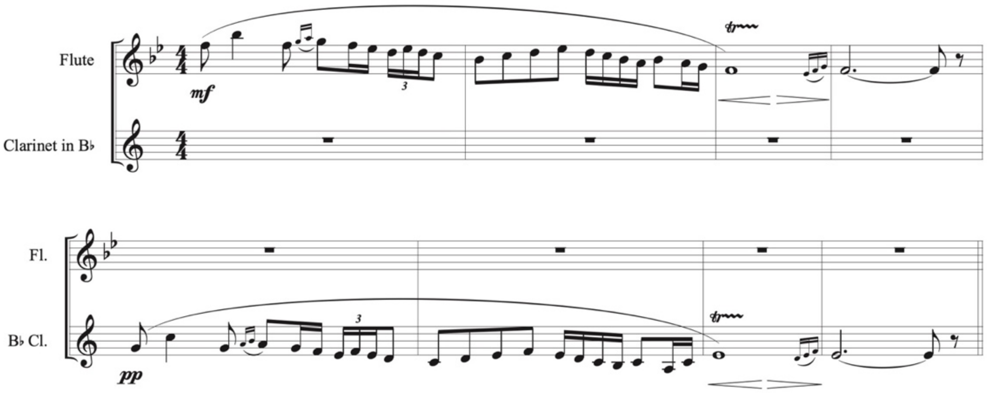
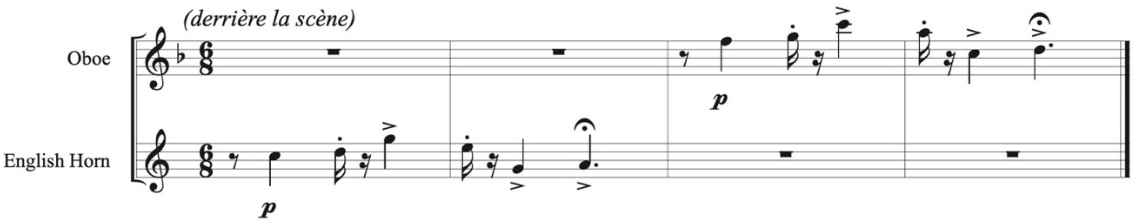


Figure 1.27: Hector Berlioz, *Symphonie Fantastique,* H48, III. Scènes aux champs, mm. 1-4



After another echoed phrase, the clarinet and flute join in duet to close the theme. The implied harmonies of the theme are conservative and establish a phrasal structure that will be consistent throughout all of the following movements: Phrase *a* set in the tonic B-flat major, Phrase *b* set in the relative key of G minor and ending on a half cadence, Phrase *a'* returning to B-flat major.

The subsequent "Tema in canone," presents the theme employing 18th Century counterpoint conventions, setting it in canon at the octave between oboe and clarinet. This version of the theme is then elaborated in five “doubles”: *Scherzo*, *Tourbillon*, *Minuetto*, *Siciliana*, and march-like *Maestoso*. Originating in 17th century France, the *double* is a type of variation which ornaments an original melody while the supporting harmonies remain the same.[112] The composition’s “Tema in canone” and “doubles” reflect the “old style” or *style ancien* from the title and draw many similarities to the keyboard works of Baroque French composers such as Jean-Phillipe Rameau whose four books of *Pieces de clavecin*[113] contain individual dances with *doubles*, most well-known is the “Gavotte with six doubles” from his fourth suite of the third book (1727)[114] and suites of dances. The instrumental dance suite, which grew out of the court dance traditions of the Renaissance, combined different styles of dances, typically an allemande, courante, sarabande, and gigue, into a multi-movement set all composed in the same key.[115]

Pierné blends both keyboard traditions by setting five *doubles* as a dance suite. Each variation utilizes a different instrumental combination but avoids the use all seven voices together thus maintaining the original piano voicing. Pierné’s orchestration underscores the character of each dance. The “1re Double Schezosamente” is scored for woodwinds only and achieves a fairy-like lightness akin to Berlioz’s “Queen Mab Scherzo” from *Roméo et Juliette* (1839). The “2e Double Tourbillon” captures the feeling of a whirlwind through clarinet and flute dexterity. Notably, the flourishing scalar patterns in Rameau’s *Les Tourbillons*, French for “whirlwinds,” from his *Suite in D,* Figure 1.28, shares contrapuntal characteristics with Pierné’s, Figure 1.29.

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[112] Green Garden, “Double (i),” in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.53467.
[113] James R. Anthony, et. al, *The French Baroque Masters* (London: Macmillan Publishers Ltd., 1986), 247.
[114] Ibid.
[115] David Fuller, “Suite,” in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.27091.

Figure 1.28: Jean-Phillipe Rameau, *Suite in D major, RCT 3,* "Les Tourbillons," mm. 47-52

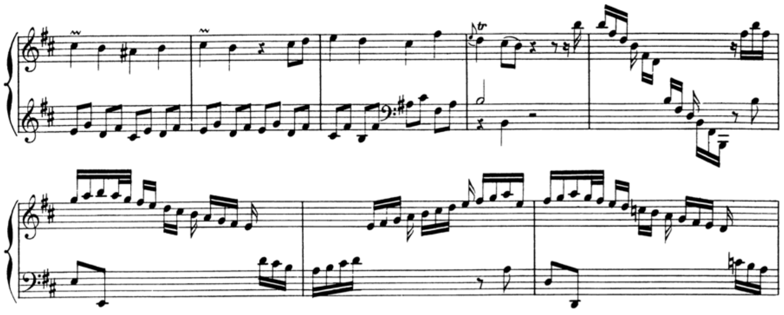
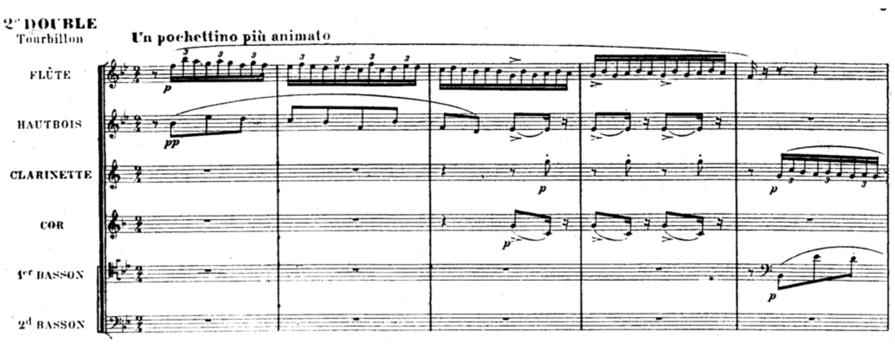


Figure 1.29: Gabriel Pierné, *Pastorale Variée dans le style ancien "*2e Double Tourbillon," mm. 1-5



The introduction of the trumpet in the "3e Double Tempo di minuetto" captures the regality of the historical court minuet. Solo oboe and pizzicato-like clarinet and bassoon depict strumming guitar and solo voice in the "4e Double Alla siciliana." And finally, the "5e Double All° maestoso" embodies a character of processional regality by utilizing all voices except the flute.

Gabriel Pierné's compositions represent the artistic aspirations of the *Belle Époque* which sought to turn away from the Austro-Germanic musical center of European by establishing a connection between historical French music and modernity. *Pastoral Variée dans le style ancient* simultaneously reflects backwards while looking forward in an attempt to shape a French national musical identity.

"Tumbao" from **Sinfonía no. 3, *La Salsa*** (2005)

Roberto Sierra
(b. 1953)
trans. Mark D. Scatterday

The compositions of Roberto Sierra blend his experiences of growing up in Puerto Rico along with those of living and studying music in Europe in the late-1970s and 80s. The composer, born in 1953, was raised in the small Puerto Rican town of Vega Baja where he received a liberal-arts education and began piano lessons at an early age.[116] As a child he performed many nineteenth century classical keyboard works by composers such as Chopin, Liszt, and Mendelssohn and sang in the chorus for the Casals Festival, an annual music event held in San Juan, founded in 1957, which celebrates the famed Puerto Rican cellist Pablo Casals (1876-1973).[117] Through the festival Sierra was exposed to the symphonies of Ludwig van Beethoven and the works of Astor Piazzolla, two composers who greatly influenced the young musician.[118]

While learning the classical Western canon, Sierra was surrounded by the traditional and popular music of Puerto Rico. He came of age in the 1960s and 70s when the new genre of *salsa* was coalescing among New York City Latino communities, primarily Nuyoricans (New Yorkers of Puerto Rican descent).[119] The composer commented that, "[he] used to see Casals playing his cello on the TV at the same time [he] was listening to the Fania All-Stars playing salsa…These two worlds coexisted in a natural organic manner."[120] Fania Records was one of the primary labels promoting the new genre and the first to use "salsa" as a promotional term in the early

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[116] Janet Crane, "Musical Visionary of the Caribbean," in *Américas* 64, no. 3 (June 2012), 58.
[117] Ibid.
[118] Ibid.
[119] Sydney Hutchinson, *Focus: Music of the Caribbean* (New York: Routledge, 2020), 54.
[120] Roberto Sierra, "Roberto Sierra in conversation with Frank J. Oteri at the Park Central Hotel in New York, NY," interview by Frank J. Oteri (*New Music USA*, November 13, 2018), https://newmusicusa.org/nmbx/roberto-sierra-globalizing-local-experiences/.

1970s.[121] Similar to Piazzolla, Sierra sought ways in which to synthesize the folkloric and popular music of his culture with Western classical idioms.

Sierra attended the Puerto Rico Conservatory of Music (1969-76) and the University of Puerto Rico (1971-76)[122] with the ambition of being a professional pianist but changed his focus to composition after a professor suggested he study harmony and composition.[123] Sierra decided to continue graduate studies in composition at London's Royal College of Music because it offered him proximity to the latest European musical trends while, as the composer commented, living in a politically and cultural neutral location.[124] Following his time in London, he briefly studied electronic music at Netherlands's Institute for Sonology (1978-79) before privately working with György Ligeti at the Hamburg Hochschule für Musik (1979-82).[125] Ligeti urged Sierra to shed the notion of composing for the acceptance of influential modernist composers,[126] namely Karlheinz Stockhausen, Pierre Boulez, and Gottfried Michael Koenig, whom the young composer revered.[127] Rather, he encouraged Sierra to combine his two strongest musical influences: European modernism and the Puerto Rican music of his youth.[128] Sierra said of working with Ligeti, "It was a fantastic and important experience for me. He was always searching for the inner voice of my work."[129]

Sierra's unique synthesis of these influences, which he calls "Topicalization," combines the formal and harmonic procedures of Western art music with elements of Latin American folk music, jazz, salsa, and Afro-Cuban rhythms.[130] For Sierra, this infusion of popular or folkloric music is not novel but rather seen throughout the works of European composers from Mozart to Mahler.[131] The composer's works evoke the traditional music of the Caribbean through the lens of classical forms while also juxtaposing dissonant melodies superimposed upon salsa or jazz-based harmonic structures.[132] His music also draws inspiration from Béla Bartók's vernacular approach and melodic lyricism as well as Stravinsky's rhythmic sensibilities.[133]

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[121] Peter Manuel, *Caribbean Currents: Caribbean music from rumba to reggae*, 3rd ed. (Philadelphia: Temple University Press, 2016), 94.

[122] Laurie Shulman, "Sierra, Roberto," in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.42553.

[123] Crane, 58.

[124] Ibid.

[125] Shulman, "Sierra, Roberto."

[126] Sierra, "Roberto Sierra in conversation with Frank J. Oteri at the Park Central Hotel in New York, NY."

[127] Crane, 59.

[128] Jose Rivera, "Roberto Sierra's *Missa Latina*: Musical Analysis and Historical Perspectives" (Ph.D., diss., Florida State University, 2006), 31.

[129] Ibid.

After completing his studies with Ligeti in 1982, Sierra returned to Puerto Rico to work in arts administration for the University of Puerto Rico and Puerto Rico Conservatory.[134] In 1987, the Milwaukee Symphony Orchestra offered his first commission from a major orchestra. He served as composer-in-residence for the organization between 1989 until 1992 when he joined the composition faculty of Cornell University after the retirement of Karel Husa, a post he continues to hold.[135] In 2002, the Milwaukee SO commissioned Sierra to write his first symphony which he took as a challenge to fuse, in his words, "two things so seemingly antipedal as Caribbean popular idioms and the classical form of a symphony."[136] His *Sinfonía no. 1* is modelled after Beethoven's first symphony; the opening movement begins with a slow introduction followed by an *allegro* in sonata-allegro form, the second movement is the slow emotional center of the work, the *scherzo* third movement is ironically set in a lopsided five-four meter rather than the typical triple meter, and the final movement combines elements of sonata-allegro form around the style of salsa.[137]

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[130] Rivera, 33.
[131] Crane, 59.
[132] Shulman, "Sierra, Roberto."
[133] Rivera, 33.
[134] Shulman, "Sierra, Roberto."
[135] Ibid.
[136] Crane, 60.
[137] Rivera, 36.

The collaboration inspired Sierra to complete two additional symphonies during the following three years. *Sinfonía no. 2* (2004), subtitled “Gran Passacaglia,” is a single movement piece which loosely follows the principles of a Baroque era *passacaglia*, a work with a repeated bassline that supports continuous variations. *Sinfonía no. 3 “La Salsa”* was premiered by the Milwaukee SO in 2005 and comprises of four movements which explore older folkloric and newer popular Caribbean music that the composer remembers from his childhood.[138] The first movement “Tumbao,” included on this recital, is cast in the expected opening movement sonata-allegro form with themes resembling piano and horn riffs from salsa. The second and third movements, “Habanera” and “Danzas” respectively, evoke older music. The composer writes that “the *habanera* is the rhythm that travelled from Havana to Europe in the fourteenth century, and the *danza* [was] the main musical form used in Puerto Rico during the same period.”[139] The final movement “Jolgorio” combines the *merengue* from the Dominican Republic with the *plena* from Puerto Rico. The full work was transcribed for wind ensemble in 2009 by Mark Scatterday, Professor of Conducting at the University of Rochester’s Eastman School of Music.

The title of the first movement, “Tumbao,” has various connotations within Latin American music but derives from the Spanish verb *tumbar* meaning “to tumble” or “to throw down.”[140] *Tumbao* is a catch-all term which describes Latin music’s sense of identity and can refer to an ensemble’s sound, rhythm, or groove. The tumbao is also a basic ostinato pattern in *rumba*, a Cuban dance, played by the *tumbadora* drums, also known as *congas*, and the double bass.[141] Sierra’s “Tumbao” evokes the nascent salsa music of his youth which emerged from

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[138] Roberto Sierra, *Sinfonía no. 3, La Salsa*, transcribed for wind ensemble by Mark D. Scatterday (Verona, NJ: Subito Music Publishing, 2005/2009), program note.
[139] Ibid.
[140] Charley Gerard with Marty Sheller, *Salsa! The rhythm of Latin music* (Crown Point, IN: White Cliffs Media Company, 1989), 47.
[141] Gerard, 47.

Puerto Rican communities living in New York City during the late 1960s who modified Cuban and African dance music as an act of pride and solidarity in the face of oppression and poverty.[142]

Puerto Rico and Cuba share many commonalities as they were both colonies under Spanish rule from the late fifteenth century until 1898.[143] From the 1940s, the two colonies were the only remaining Latin American territories under Spanish control; a fact which culturally united them through a shared struggle for independence. Puerto Rican poet Lola Rodríguez de Tío described the colonies as "the two wings of the same bird."[144] Throughout this period, Puerto Rico borrowed and mastered musical styles from Cuba including the *son*, rumba, and *bolero* as well as meringue from the Dominican Republic. As Peter Manuel explains, "the richness of Puerto Rican musical culture derives in large part from the way it has adopted many imported musics while nurturing its own dynamic folk and pop music."[145] The shared African musical influences across the Caribbean mostly originated in Cuba due to industrial enslavement. The Cuban economy was driven by a high population of slave labor which harvested its sugarcane crops whereas Puerto Rico's main industry of tobacco and coffee production was more reliant on native citizens, although not free from a history of enslaved populations.[146] Puerto Rican musical traditions, rather, stem from indigenous Taino Indians.

Throughout the first half of the twentieth century, Puerto Rican citizens emigrated to New York City in such high numbers that by the 1950s there was a larger Puerto Rican population in New York than on the island itself.[147] Similarly, the Cuban population in New

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[142] Hutchinson, 54.
[143] Manual, 68.
[144] Ibid.
[145] Ibid., 69.
[146] Ibid., 83.
[147] Ibid.

York City grew, and when Cuba was isolated from the rest of the Western Hemisphere for sociopolitical reasons, New York became the new center of Cuban music.[148] The Caribbean diaspora settled in East Harlem in Manhattan which gained the title *El Barrio*, Spanish for "neighborhood," and set the stage for the cross-culturation of musical styles that led to the innovation of salsa.[149] In the 1960s and 70s, Nuyoricans struggled for community control and were subject to political disenfranchisement by obfuscation of voting rights and tenement price gouging.[150] These social inequities inspired the Nuyorican community to create a new musical style which would both embrace Puerto Rican tradition and reflect the attitude of El Barrio.[151]

Salsa music adapted elements of Cuban dance music with expanded instrumentation typical of Puerto Rican popular and traditional styles. Musicians such as Willie Colón, a New York born and Puerto Rican raised bandleader, also incorporated elements of jazz and rock which Colón said, "were the sounds that were surrounding us. We incorporated them into what was Tropical or Afro-Cuban Music."[152] The two main elements of Cuban music which influenced salsa are the *son*, a popular song form of Cuba, and the *clave*, an ostinato which anchors the various rhythmic strata of a piece.[153] Salsa adopted the two-part *son* form which opens with a songlike section followed by an extended *montuno* section which includes call and response between singer and instrumentalists all set over a clave ostinato.[154] The *son*, which originated in eastern Cuba around 1900, would have been performed by vocalists playing percussion including bongos and claves; a 9-string guitar called a *tres*; and a plucked finger box called a *marimbula*.[155] Salsa relies on the Nuyorican inclusion of a horn section which includes trumpets, trombones, and saxophones; timbales; maracas and guiro, both Taino instruments; and the utilization of percussion in the foreground.[156] Ultimately, artists codified salsa's distinct sound through the infusion of genres and specific idiosyncrasies which Roberto Sierra employs in the first movement of his *Sinfonía no. 3*.

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[148] Gerard, 4.
[149] Manuel, 93.
[150] Ibid., 85.
[151] Ibid., 93.
[152] Felix M. Padilla, "Salsa: Puerto Rican and Latino Music," in *Journal of Popular Culture* 24, no. 1 (Summer 1990) Oxford University Press, https://www.proquest.com/scholarly-journals/salsa-puerto-rican-latino-music/docview/195356637/se-2, 94.
[153] Padilla, 90.
[154] Manuel, 104.

Sierra's "Tumbao" movement reimagines the tradition of Puerto Rican salsa through symphonic conventions. As shown in Figure 1.30, the movement follows the expected formal and harmonic practices of sonata-allegro form, however the composer's infusion of salsa style obscures the works formality.

Figure 1.30: Formal Outline for *Sinfonía no. 3*, Movement I. "Tumbao" by Roberto Sierra

Section	*Measure*	*Length*	*Tonal Center*
Introduction *N*	**1-10**	**10**	**Bitonal C & G-flat**
Exposition			
Primary Theme *P*	**11-54**	**44**	**C**
a_1	11-26	8+8	C
a_2	27-34	8	
a_3	35-42	8	G
a_4	43-54	4+8	C
Transition *T*	**55-76**	**22**	Unstable
t_1	55-64	4+4+2	
t_2	65-76	4+8	
Secondary Theme *S*	**77-103**	**27**	**G**
b_1	77-88	8+4	
b_2	89-92	4	
b_k	93-103	8+3	
Development	**104-190**	**6**	**Unstable**
$d_1(a_1)$	104-124	3+8+8+2	Octatonic
$d_2(t_1)$	125-129	4	Unstable
(b_2)	130-140	4+5	e-flat
(t_1)	141-149	4+5	Octatonic
$d_3(a_1)$	150-155	2+4	C

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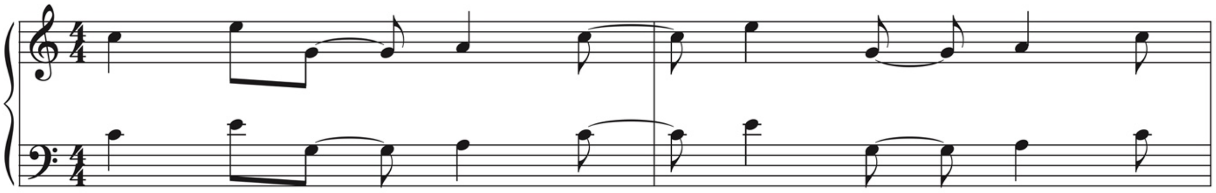
[155] Manuel, 44.

[156] Padilla, 95.

(t_1)	156-165	4+3+3	Unstable
$d_4(a_3)$	166-177	4+4+4	e-flat
(b_1)	178-183	6	C (G Dominant 7th)
(a_4)	184-190	7	
Recapitulation			
Primary Theme *P*	**191-230**	**40**	**C**
a_1	191-202	8+8	C
a_2	203-210	8	
a_3	211-218	8	G
a_4	219-230	4+4+4	C
Transition *T*	**231-249**	**19**	**Unstable**
t_1	231-239	4+5	
t_3	240-249	10	
Secondary Theme *S*	**250-267**	**18**	**C**
b_1	250-259	8	
b_2	260-267	8	
Coda *K*	**268-286**	**19**	**C**
b_k	268-278	8+3	
k	179-286	8	

Sierra employs various clave ostinatos to delineate formal sections. For instance, during the primary theme, he utilizes a clave variation known as the *guajeo*, shown in Figure 1.31. This common piano pattern, known as the montuno, originates from Cuban son and uses both the guajeo and a customary harmonic pattern which oscillates between tonic and dominant.[157] The two-measure guajeo's repeated syncopation, shown in Figure 1.31, plays in opposition to the bassline one-measure ostinato, Figure 1.32.

Figure 1.31: Guajeo Pattern, Roberto Sierra, "Tumbao," piano m. 11-12



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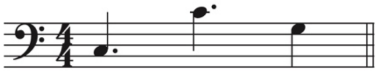
[157] Manuel, 104.

Figure 1.32: Bass ostinato, Roberto Sierra, “Tumbao,” double bass m. 15



Within transitions and throughout the development, the clave is as unstable as the harmonic motion; fragments of the guajeo are heard along with a more straight forward 3-2 clave, such as in the marimba in measures 69-74 as shown in Figure 1.33. In contrast, the clave pattern utilized in the secondary theme, Figure 1.34, is a variation of a 2-3 clave ostinato and is first heard in the clarinets, guiro, and cabasa.

Figure 1.33: 3-2 Clave, Roberto Sierra, “Tumbao,” marimba m. 69-70

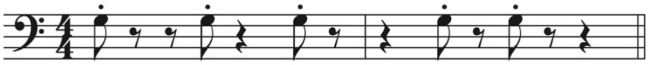
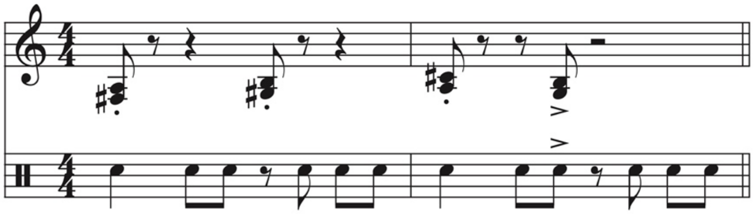


Figure 1.34: 2-3 Clave, Roberto Sierra, “Tumbao,” m. 77-78 reduction



In salsa music a clave pattern acts as a centrifugal force which is performed throughout the entirety of the work and typically does not change.[158] While a clave pattern is present throughout the entirety of “Tumbao,” the composer varies the patterns to outline formal structures.

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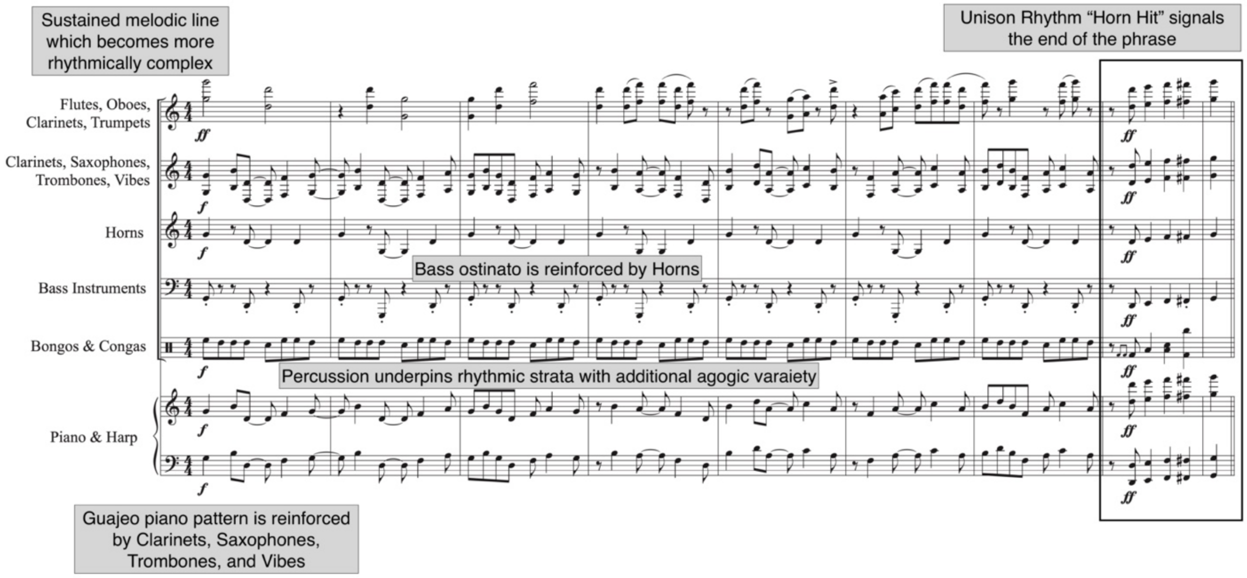
[158] Gerard, 13.

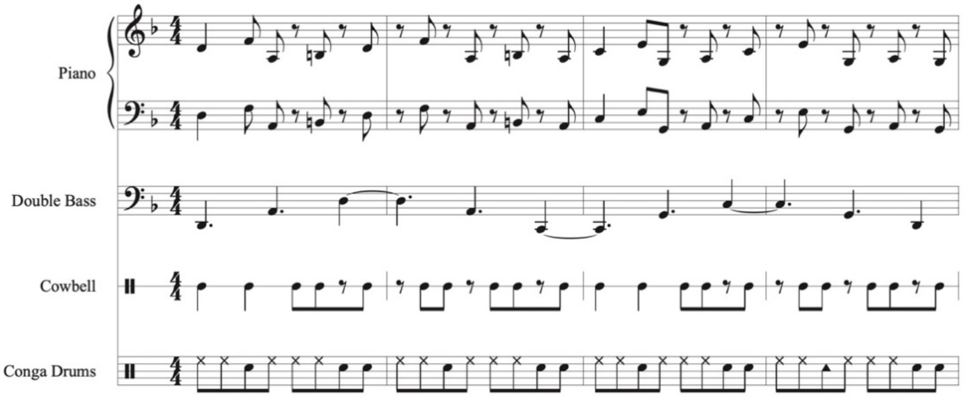
Complex layers of rhythmic strata interact with the various clave ostinatos throughout the work without local repetition between phrases which gives the work a sense of continual evolution. Rhythmic levels take one of three forms: compliment of the local clave, bass rhythm, or varying melodic line. Figure 1.35 details how unison interjections, imitative of a salsa band's horn section, disrupt the intricate rhythmic structures and demarcate phrase endings. A comparison of Figure 1.35 to Figure 1.36 shows the similarities of Sierra's rhythmic and harmonic patterns to that of traditional salsa, in this case Eddie Palmieri's "Ven ven."

Figure 1.35: Roberto Sierra, "Tumbao," m. 35-42 reduction



Sustained melodic line which becomes more rhythmically complex
Unison Rhythm "Horn Hit" signals the end of the phrase
Flutes, Oboes, Clarinets, Trumpets
Clarinets, Saxophones, Trombones, Vibes
Horns
Bass Instruments
Bongos & Congas
Piano & Harp
Bass ostinato is reinforced by Horns
Percussion underpins rhythmic strata with additional agogic varaiety
Guajeo piano pattern is reinforced by Clarinets, Saxophones, Trombones, and Vibes

Figure 1.36: Eddie Palmieri, “Ven ven,” reduction[159]



The predictable, established salsa patterns of the exposition and recapitulation are set in contrast to the unstable fragmentation of the development. As is true in classical convention, Sierra transforms previously heard material through a series of harmonic alterations. He utilizes sequences of chromatic and octatonic harmonies in conjunction with expositional themes which lead to the distantly related key of E-flat minor, hinted at briefly from measures 141-144 and given its own theme in measures 166-177. Additionally, contrasting rhythmic material obscures the salsa dance figures. Agitated series of 16th-notes, typically outlining octatonic scales, bridge melodic fragmentation while brass and low woodwinds provide slowly paced harmonic sustains.

The recapitulation is almost formally identical to the expositions, although phrases are reorchestrated, and new counter melodies are present. As is expected in sonata-allegro form, the transition and secondary theme are recomposed to tonicize the tonic key of the primary theme, in this case C major. Sierra replaces the secondary transition (t_2), which almost acts as a secondary theme, with a new transitionary phase (t_3) complete with medial caesura, a formal component absent in the exposition. The short coda, derived from the closing phrase of the secondary theme (b_k), recalls the agitated octatonic scalar patterns of the development and lead to a final tutti unison C. "Tumbao" from *Sinfonía no. 3 "La Salsa"* exemplifies Roberto Sierra's process of "Tropicalization." The composer's unique artistic voice is embodied through the fusion of popular Puerto Rican music and European classical traditions.

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[159] Manuel, 104.

Courtly Airs and Dance (1995) Ron Nelson (b. 1929)

Ron Nelson was born December 14, 1929 in Joliet, Illinois and demonstrated exceptional musical abilities from a young age.[160] Responding to his mother's encouragement to someday play the organ, Nelson began piano lessons at age six and fulfilled his mother's wishes when he became the organist at the First Baptist Church of Joliet at age twelve.[161] However, the young Nelson was notorious for neglecting to practice his keyboard assignments in favor of composing and improvising his own music. He also performed string bass in his high school concert band which selectively performed a small, traditional repertoire of orchestral transcriptions.[162] Nelson was frustrated by the lack of new band literature, especially by American composers.

Joliet, Illinois is located 50 miles south of Chicago. As a teenager, Nelson spent his Saturdays ushering at the Chicago Civic Opera House and attending performances at the Blue Note Jazz Club and Chicago Symphony Orchestra.[163] At one such Chicago Symphony Orchestra concert, he heard Howard Hanson's *"Romantic" Symphony no. 2* which inspired him to apply to the Eastman School of Music in hopes of studying composition with Hanson.[164] Nelson went on to receive a Bachelor of Music (1952), a Master of Music (1953), and a Doctor of Musical Arts

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[160] Ron Nelson, "Composer Ron Nelson: A Conversation with Bruce Duffie," interview by Bruce Duffie, December 19, 1997, online, http://www.bruceduffie.com/ronnelson.html.

[161] Thomas Slabaugh II, "Ron Nelson," in *Composer's Insight: Volume 2*, ed. by Timothy Salzman (Galesville, MD: Meredith Music Publications, 2003), 138.

[162] Ibid., 139.

[163] Ibid.

[164] Ibid.

(1957) in composition from Eastman while studying with Hanson, Louis Mennini, and Bernard Rogers.[165] In 1955, he received a Fulbright Grant to study composition with Tony Aubin in Paris, France at the École Normale de Musique. Nelson joined the composition faculty of Brown University in Providence, Rhode Island in 1956 where he taught until his retirement in 1993.[166]

During his studies at Eastman, Nelson observed the influence of Frederick Fennell and the Eastman Wind Ensemble upon the growth of the wind band repertoire. The Eastman Wind Ensemble's "trimmed down…more sinewy sound" changed Nelson's conception of what was possible by the wind band.[167] The group also introduced Nelson to the potentiality of the percussion section and its ability to create "color and transparency of texture."[168] His compositional output includes over 40 instrumental works of which 25 are for wind band.[169] Despite the large number of works for band, he said this of his path to composing for winds:

> The orchestra is my true love, but the world I found was not waiting for another Nelson piece. I was not getting commissions for orchestral pieces. On the other hand, the band world, having such a small history of literature, really is looking for new music. So, I devoted a lot of my energies to the band, and I think I brought with that energy toward the band my love for the orchestra. So, if my compositions for band sound, shall we say "unique" or "different" or "special" it's because they're composed with the orchestral bias for transparency.[170]

During the middle of the 20th Century, American composition was dominated by serial techniques championed by composers, such as Milton Babbitt and Roger Sessions, at influential universities.[171] Nelson said of his forays into serialism, "I didn't feel I could make very expressive music out of them…I was considered quite out of the loop, but I was content to go on my way."[172] Instead, he was inspired by the neo-Romantic styles of William Walton and Hanson. Additionally, the harmonic languages of Igor Stravinsky and Sergei Rachmaninov, particularly their use of the octatonic scale,[173] and Walton's use of tall tertian sonorities inspired his compositional style.[174]

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[165] Nelson, Interview.
[166] Ibid.
[167] Slabough, 141.
[168] Stephen Peterson, "Profile of Composer Ron Nelson," *The Instrumentalist* 48, no. 11 (June 1994): 49.
[169] Slabough, 138.
[170] Nelson, Interview.

Nelson's unique, colorful orchestration is one noteworthy aspect of his instrumental music. While at Eastman, he studied this aspect of composition with Bernard Rogers who compared the potential choices of orchestration to the colors of an artist's palette.[175] Nelson considered Rogers a genius at this craft while attributing his own understanding of the subject to his time as an organist: "the stops on an organ are similar to the mixing of colors in band or orchestra…You develop that understanding quite naturally when you learn to play the organ."[176]

Many of the composer's early works reflect his interest in music for film. His pictorial writing emphasizes "melody, lush harmony, and tension and release."[177] There is an obvious emphasis in his later compositions of older established musical styles.[178] Formal techniques inspired by the Baroque era are reflected in his wind band pieces *Passacaglia (Homage on B-A-C-H)* (1992) and *Chaconne (In Memoriam…)* (1994) while *Lauds* (1991) and *Medieval Suite* (1982) reflect an influence of older musical harmony and style.

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[171] Slabaugh, 142.
[172] Nelson, Interview.
[173] Peterson, 49.
[174] Ibid.
[175] Slabough, 141.
[176] Ibid.
[177] Ibid., 142.
[178] Ibid., 143.

Nelson fervently believes that musicians of all ability and age levels should have access to expressive, quality literature.[179] In the vein of Béla Bartók's progressive piano études *Mikrokosmos* (1926, 1939), Nelson has written pieces with younger performers in mind without diluting the musical substance.[180] Cheryl Floyd, former director of the Hill Country Middle School Band in Austin, Texas, commissioned Nelson to write a work for her students in 1994.[181] *Courtly Airs and Dances* was completed the following year following a collaborative process between composer and Hill County band students.[182]

The work, a suite of Renaissance dances, opens with a fanfare-like "Intrada." Additional movements draw upon characteristic dances from five European countries during the 1500s: the "Basse Danse" of France, the "Pavane" of England, the "Saltarello" of Italy, the "Sarabande" of Spain, and the "Allemande" of Germany. The "Basse Danse," "Pavane," and "Allemande" movements are transcriptions of four-part instrumental dances by French composer and editor Claude Gervaise (1525-1583) while the "Intrada," "Saltarello," and "Sarabande" movements draw upon the style of his music.[183]

As the title suggests, these dances originate from aristocratic European Renaissance courts. Dancing was one of the most popular social activities of the Renaissance.[184] Yet, the function of dance went beyond the realm of entertainment. During the 16th Century, Europe was divided into smaller sovereign states each with their own wealth and sophisticated courts.[185] Aristocratic leaders were in direct competition with one another militarily, financially, politically, and artistically.[186] Cultural capital was assigned based upon the grandeur of festivities and the level of artistic patronage. Court musicians were listed among court employees and might have been expected to maintain the church choir, play the organ, or organize a group of singers and instrumentalists to provide chamber music. The wealthiest courts also employed an ensemble of wind players to perform at outdoor festivities and processions.[187] French King Francis II (reigned 1559-1560) established an innovative small band, called the *Écurie,* which included twelve trumpeters and eight players of other loud wind instruments.[188]

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[179] Nelson, Interview.
[180] Peterson, 49.
[181] Ron Nelson. *Courtly Airs and Dances* (Boca Raton, FL: Ludwig Music Publishing Co., Inc., 1995), 2.
[182] Peterson, 50.
[183] Nelson, *Courtly Airs and Dances,* 2.
[184] Giulio Ongaro, *Music of the Renaissance* (Westport, CT: Greenwood Press, 2003), 92.
[185] Ibid., 106.

The musical accompaniment of Renaissance court dancing was simple and formally standardized over time.[189] Music was published for amateurs while professionals were expected to use tunes as a basis of embellishment and improvisation.[190] Dance accompaniment was typically composed in three or four parts. As there was not yet a concept of a large orchestra, dance accompaniment was typically one player for each part. Instruments were paired together depending on their intensity of volume.[191] To cover a wide range with a uniform timbre, instrument makers created "consorts" or families of the same instrument. Court balls might have been accompanied by consorts of mixed instrumentation, strings, woodwinds, or potentially brass for outdoor festivities. Woodwinds comprised the largest variety of instruments from the Renaissance. Recorders, flutes, fifes, rackets, and particularly shawms accompanied court dances.[192] While drum parts were never written in musical scores, there is evidence that they were included in dance performance.[193]

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[186] Margaret M. McGowan, *Dance in the Renaissance: European Fashion, French Obsession* (New Haven, CT: Yale University Press, 2008), 18.
[187] Ongaro, 106.
[188] Ongaro, 107.
[189] Ibid., 94.
[190] Ibid.
[191] Ibid., 151.
[192] Ongaro, 163.
[193] Ibid., 168.

Paris, France was central to the popularity of court dancing.[194] When Catherine de Medici transplanted from Florence, Italy to Paris to marry King Henri II in 1547, she brought the well-established Italian court dance traditions.[195] King Henri III, who reigned from 1572-1587 and was an avid dancer, held numerous court balls and ballets throughout the year in addition to each day in January and February. In 1578, Henri III went so far as to institutionalize the step patterns and sequences of dances performed during a court ball: *pavane, allemande, branle, courrente, volta, galliarde*.[196] Other dances which may have been performed include *basse danse, gavotte, gigue, saltarello, and sarabande*. Additionally, the French royal court employed a printer of music, Pierre Attaignant, who printed upwards of 1000 copies of dance music each year beginning in 1529.[197] Contemporary understanding of specific dance performance from this period is based upon Thoinot Arbeau's *Orchésographie* (1589), one of the first and only surviving Renaissance dance manuals.

Individual dances had their own musical characteristics based upon their role within the court ball. Dancers relied on a standard combination of steps which dictated the length and rhythmic content of dances[198], a fact which is reflected by the form and rhythmic contours of *Courtly Airs and Dances*. Through a modern lens Ron Nelson reinterprets Claude Gervaise's four-part dances, originally intended for the French royal court,[199] while maintaining their fundamental structure and social intention. Nelson's work pays homage to the lineage of wind and percussion instruments dating back to the Renaissance.

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[194] McGowan, 1.
[195] Louis Horst, *Pre-Classical Dance Forms* (Princeton, NJ: Princeton Book Company, Publishers, 1937), 4.
[196] McGowan, 71.
[197] Ibid., 1.
[198] Ongaro, 94.
[199] Lawrence F. Bernstein, "Gervaise, Claude," in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.10971.

Historically, *intradas* during the Renaissance were instrumental pieces used to announce or accompany an entrance, inaugurate a festive event, or begin a suite of dances as is the case in Nelson's work.[200] It was typically performed by a consort of brass instruments. Nelson's "Intrada" draws parallels to its ancestor through orchestration and character. The movement consists of three four-measure phrases, each repeating the fanfare melody first played by a consort of trumpets. A comparison of Figure 1.37 to Figure 1.38 demonstrates that the melodic content is derived from Gervaise's *Allemande II* and set in diminution.

Figure 1.37: Claude Gervaise, *Danceries 1^re^ volume,* VI. Allemandes, II., mm. 1-8

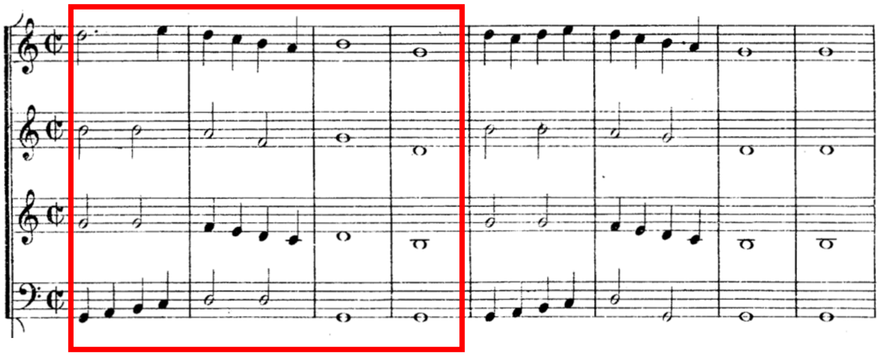
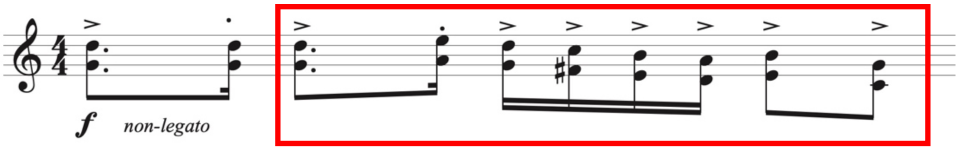


Figure 1.38: Ron Nelson, *Courtly Airs and Dances*, 1. Intrada, trumpet mm. 1-3



Each successive phrase introduces additional consorts of instruments. First flutes and oboes in measure 3, then low brass and woodwinds in m. 5, and finally culminating with the addition of the clarinets and saxophones in m. 10. Each consort moves in quintal parallel motion centered in F major. Nelson chromatically alters the parallel motion to create a contemporary harmonic landscape. The ultimate fanfare statement at m. 10, Figure 1.39, demonstrates Nelson's mixture of organ-like registration and contemporary harmony. Parallel quintal harmony creates a foundation upon which parallel triadic harmony across three octaves moves obliquely. The synthesis creates a density of harmony with clarity of orchestration.

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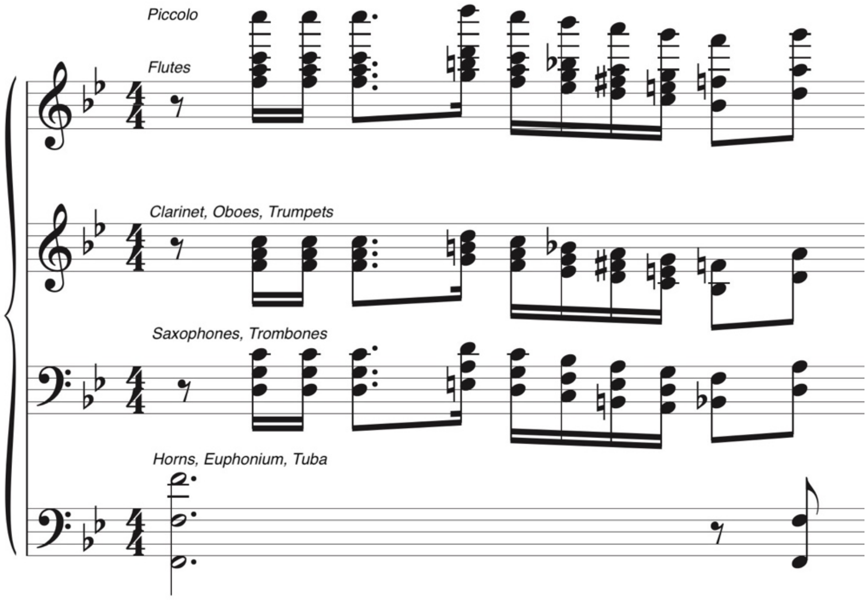
[200] David Fuller, "Intrada," in *Grove Music Online*, Oxford (Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.13870.

Figure 1.39: Ron Nelson, *Courtly Airs and Dances*, 1. Intrada, m. 10 reduction



The following "Basse Danse" is a transcription of Gervaise's *Basse Danse II "La volunte."*[201] In Renaissance dance traditions, the *basse danse* was the most performed court dance and was always set in triple meter.[202] The first known mention of the French *basse danse* is from the *Chroniques d'Auton* in 1503.[203] Couples performed this simple dance consisting of only five step variations. "Basse" implied that the dancers' feet never left the ground. Instead, the feet slid across the dancefloor.[204] The step technique necessitated a slow and dignified tempo.[205] At court, the *basse danse* functioned as an entry processional dance to introduce the various couples in attendance[206] making Nelson's choice to place it first congruent with the French tradition. Nelson's "Basse Danse" transcription borrows from the Renaissance trope of consorts. The first phrase (m. 1-8) sets the four-part Gervaise score for a consort of oboe, clarinet, bassoon, and horn with the addition of snare drum in the manner of a Renaissance rope drum. The phrase is repeated a second time (m. 8-16) by a consort of brass consisting of trumpet, horn, trombone, and euphonium. Nelson sets the contrasting phrase that follows (m. 16-24) for a consort of flutes, oboes, clarinets, and mallet percussion. The addition of the percussion keyboard instruments, not yet invented during the Renaissance, norms and reveals how Nelson uses percussion to color the winds. The movement closes with a repeat of the opening phrase (m. 24-32) with the full forces of the ensemble set in organ-like registration without added counterpoint or harmony. This movement highlights the fusion of an historical idiom and the capabilities of the contemporary wind band.

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[201] Claude Gervaise, et. al, *Les Maîtres Musiciens de la Renaissance Française*, ed. M. Henry Expert (Paris; Alphonse Leduc, 1858), 5.
[202] McGowan, 95.
[203] Ibid.
[204] Mabel Dolmetsch, *Dances of England and France from 1450 to 1600* (New York: Da Capo Press, 1975), 1.
[205] McGowan, 95.

Often called the *danse royale*, the *pavane* also presented courtly couples at the beginning of a ball. The origins of the *pavane* are contested. "Pavana" or "Padoana" are adjectives which describe something "of Padua" in Italy. Some scholars, however, argue the dance originated in Spain and takes its name from the Spanish "pavón" meaning "peacock."[207] The dance is slow and set in a duple meter without florid passages.[208] It was danced through a series of advancing and retreating steps while couples held hands before each taking a turn to display their finery during solo dance portions.[209] It was typically accompanied by solo instrument, small consort, or even voice.[210] Claude Gervaise's *Pavane I. Pavane D'angleterre*, the basis for this movement pays homage to the English tradition of the dance. As its popularity waned in continental Europe, English composers imbued it with new significance. Beginning at the last quarter of the Sixteenth Century, composers such as William Byrd, John Dowland, and others wrote numerous *pavanes* for lute, keyboards, and ensembles until 1625.[211] Nelson's interpretation of Gervaise's music transforms the slow dance through colorful orchestration. The melody of the first phrase (m. 1-16) is scored for clarinet and oboe one octave apart, a technique Nelson admits to have learned through his time as an organist and uses it often.[212] The duet is accompanied by a delicate, transparent cushion of harmony played by mallet percussion, clarinets, low register tremolo flutes, as well as sustaining brasses and does not deviate from Gervaise's original. The middle phrase returns to the trope of consorts beginning first with woodwinds and glockenspiel (m. 17-24), then tutti brass (m. 25-32) before the movement closes with a repetition of the first eight measures of the opening phrase (m. 33-40).

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[206] Ibid.

[207] Alan Brown, "Pavan," in *Grove Music Online*, Oxford (Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.21120.

[208] Horst, 13.

[209] Ibid., 12.

[210] Brown, "Pavan."

The rapid Italian *saltarello* originated in Tuscany during fourteenth century.[213] It was danced with leaps and kicks similar to the French *alta danse*.[214] The musical accompaniment was set in a compound meter and exploited the use of hemiola.[215] Nelson's "Saltaerllo" is not based upon a Gervaise score but rather draws from traditional stylistic elements. Sounding as if in the distance, the movement opens with traditional percussion accompaniment: tambourine, rope drum, and tenor drum. Solo flute introduces the dance theme (m. 9-24) which is then repeated three times. The entire movement progressively grows dynamically and through orchestration creates a wedge crescendo effect while muted trombones, trumpets, and stopped horns add variety of color. Harmonic drones are played by the horns and low brass as if to imitate the ghironda, or Italian hurdy-gurdy, typical of medieval and Renaissance folk music. Within a tonal center of F dorian, Nelson utilizes polyharmony to create impact where leaping steps would be danced (e.g. m. 97). These compositional elements point towards the final measures where the full ensemble finishes the dance in union across five octaves imitative of the traditional hat toss at the end of a saltarello (m. 119-120).

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[211] Ibid.

[212] Slabaugh, 140.

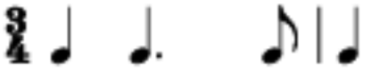
[213] Fabritio Caroso, *Courtly Dance of the Renaissance: A New Translation and edition of the* Nobiltà di Dame, trans. Julia Sutton (New York: Dover Publications, Inc., 1995), 43.

[214] Meredith Ellis Little, "Saltarello," in *Grove Music Online*, Oxford (Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.24412.

[215] Ibid.

Originating from Arabic-Moorish roots in the 12th Century, the *sarabande* was popularized in the 16th century in the Basque region of Spain and introduced to French courts around 1588.[216] In Latin America and Spain during the 16th Century the dance was accompanied by guitar, castanets, and singing.[217] The European court dance traditions of the *sarabande* developed a specific rhythmic structure, shown in Figure 1.40, between 1640-92.[218]

Figure 1.40: Sarabande Rhythmic Convention



The *sarabande* was a slow, solemn dance set in triple meter with emphasis on the second beat in which dancers would pause steps.[219] Dancers used light steps which led with a pointed foot.[220] Nelson's "Sarabande" follows the typical rhythmic figuration and pays tribute to the tradition of singing during court balls. In the outer sections of the dance, solo flute plays the melody which is doubled by all ensemble members not playing singing. The mostly stepwise melody is accompanied by pianissimo low winds and *molto sostenuto* mallet percussion. The harmony is conservative while referencing 17th Century conventions through appoggiaturas and cadential approaches. The result is an intimate, patient dance which contrasts the preceding "Salterello" and concluding "Allemande."

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[216] Horst, 46.

[217] Richard Hudson and Meredith Ellis Little, "Sarabande," in *Grove Music Online,* Oxford (Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.24574.

[218] Ibid.

[219] Horst, 48.

[220] Mari Ruef Hofer, *Polite and Social Dances: A Collection of Historic Dances, Spanish, Italian, French, English, German, American* (Chicago: Calyton F. Summy Co., 1917), 15, HathiTrust.

The Germanic variant of the French *basse danse* was the *allemande*. Although it is thought to have originated in medieval Germany, the first known written account of the dance was published in a London dance manual in 1521.[221] The courtly *allemande* was unique in that couples' hands were to remain joined together throughout the dance.[222] The heavier style dance was adopted into the French courts by King Francis I in 1540.[223] The dance remained slow at the French court but took on a more graceful air with emphasis on flowing movements of the arms.[224] The musical accompaniment was set in duple time, homophonic, lacked syncopation, and emphasized downbeats.[225] The Gervaise material already heard in the opening "Intrada" returns in its entirety in Nelson's "Allemande." This movement, more than the others, illustrates Nelson's contemporary lens. The phrases alternate between sections of tutti brass fanfares and intimate four-part consorts. The tutti fanfare sections increase in harmony complexity and orchestration with each iteration. The movement opens with a unison statement of the theme (m. 1-8). The restatement (m. 9-16) expands into quintal harmony, similar to the "Intrada." The second entry of the fanfare at m. 25 is scored in parallel triadic harmony. Following a repeat of the consort episode (m. 33-40), the third entry of the fanfare (m. 41) emerges out of the final consort episode in canon. The layered entrances culminate into a final tutti statement of the fanfare at the widest registration of the work. Nelson puts a personal stamp in the closing phrase by concluding the piece with a short brass outburst set in his colorful harmonic language (m. 62-66) mixing successive polychords, tall tertian sonorities, and quintal harmony before returning to F major for a tutti *fortissimo* statement.

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[221] Meredith Ellis Little and Suzanne G. Cusick, "Allemande," in *Grove Music Online*, Oxford (Oxford University Press, 2001) https://doi.org/10.1093/gmo/9781561592630.article.00613.
[222] Hofer, 12.
[223] Ibid.
[224] Ibid., 28.
[225] Little, "Allemande."

Courtly Airs and Dances provides an opportunity to explore repertoire from the Renaissance as well as cultural practices of the courtly dances included through Ron Nelson's innovative compositional style. His experience as an organist and inclination for transparency of orchestration bring a new life to Claude Gervaise's centuries old court dances.

Winter Dreams (2015) Michael Daugherty (b. 1954)

Michael Daugherty, born April 28, 1954 in Cedar Rapids, Iowa, composes music which unites the popular music of his youth with sophisticated technique.[226] He was raised in a musically active home by his father, Willis, who played drums in some of Iowa's finest dance bands and his mother, Evelyn, who was an amateur singer.[227] During the 1950s and 60s, Daugherty was involved in many different musical groups including the Emerald Knights Drum and Bugle Corps and the jazz-rock-soul band "The Soul Company" which he formed with his four younger brothers.[228] Willis drove the group across the region to perform and frequently hosted open jam sessions for area musicians in the family living room.[229]

Daugherty studied jazz piano at North Texas State University (now the University of North Texas) where he first discovered his passion for orchestral music after hearing a Dallas Symphony Orchestra performance of Samuel Barber's *Piano Concerto* and Paul Hindemith's

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[226] Judson Scott, "Michael Daugherty," in *Composer's Insight: Volume 1*, ed. by Timothy Salzman (Galesville, MD: Meredith Music Publications, 2003), 35.
[227] Michael Daugherty, *Winter Dreams* (Ann Arbor, MI: Michael Daugherty Music, 2015), iii.
[228] Scott, 36.
[229] Daugherty, *Winter Dreams*, v.

Mathis der Maler.[230] He said of the experience, "I really loved the sound of the orchestra, so ever since then I have wanted to take my interest in rock and jazz and combine it with the instruments of the orchestra."[231] After graduating from NTSU in 1976, he studied composition at the Manhattan School of Music before receiving a Fulbright scholarship to attend the Institute for Research and Coordination in Acoustics/Music (IRCAM) in 1979-80 in Paris, France where he spent time with European *avantgarde* composers Luciana Berio, Pierre Boulez, and Karlheinz Stockhausen.[232] Daugherty absorbed their intellectual ideas of musical construction before returning to the United States to study composition at Yale University between 1980-82 with America's musical leaders Earle Brown, Jacob Druckman, Bernard Rands, and Roger Reynolds.[233]

He moved to New York City in 1982 to assist pianist and arranger Gil Evans who exposed Daugherty to the jazz clubs of New York and emphasized the imagination of harmony and timbre when composing.[234] In the 1980s, Daugherty was dissatisfied with the compositional trends influenced by science, arithmetic, and philosophical formulas that were championed by composers such as Milton Babbitt, Boulez, and Elliott Carter.[235] In 1984, he travelled to Hamburg, Germany to study with György Ligeti in his exclusive composition studio of only six students.[236] Ligeti found the academic approach to composition unoriginal and encouraged students to discover new means of musical expression. His complex contrapuntal writing heavily influenced Daugherty and his new mentor encouraged him to consider using American rock and jazz into the backdrop of his compositions.[237]

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[230] Scott, 36.
[231] Ibid.
[232] Ibid.
[233] Ibid.
[234] Ibid.
[235] Ann McCutchan, *The Music that Sings: Composers Speak about the Creative Process* (Oxford: Oxford University Press, 1999), 174.
[236] Scott, 36

Daugherty's music combines the vernacular of popular music with the compositional craft of his many mentors. His works explores the interplay of musical idioms associated with "high" and "pop" cultures[238] and span all genres including chamber, opera, orchestra, and wind band. Most of his works are rooted in iconography of American culture such as the *Superman* comic books, *Star Trek*, Lucille Ball and Ricky Ricardo, Niagara Falls, Jacqueline Kennedy Onassis, and Elvis Presley.[239] He noted:

> For me icons serve as a way to have an emotional reason to compose a new work. I get ideas for my compositions by browsing through second-hand bookstores, antique shops, and small towns that I find driving on the back roads of America. The "icon" can be an old postcard, magazine, photograph, knick-knack, match book, piece of furniture of roadmap. Like [Charles] Ives and [Gustav] Mahler, I use icons in my music to provide the listener and performer with a layer of reference.[240]

Melodic ideas are developed within a complex structure of polyrhythms, a skill which he attributes to playing popular music in his youth.[241] He meticulously crafts large-scale structures through the pacing of melodic development and tonal movement. His colorful orchestration is the result of his experimental process which utilizes technology to mix various timbral possibilities which he records live or creates through synthesizers.[242]

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[237] Scott, 36.

[238] Todd Vunderink, "Michael Daugherty," in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.42537.

[239] Daugherty, *Winter Dreams*, 43.

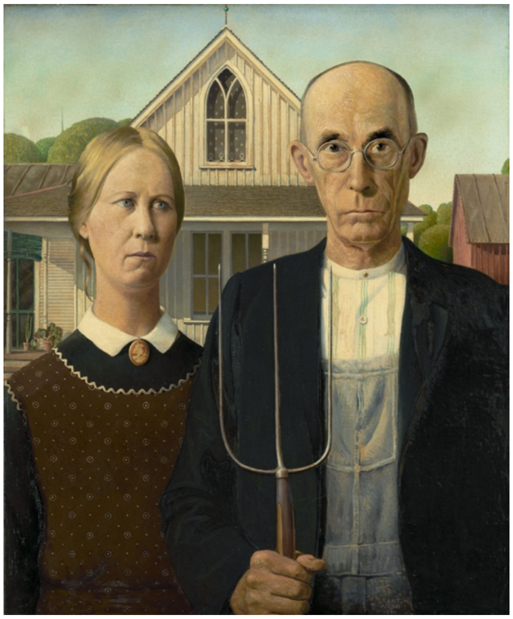
[240] Scott, 35.

[241] Vunderink, "Michael Daugherty."

[242] Scott, 36.

Michael Daugherty's *Winter Dreams* for concert band is a musical reflection on the Midwestern regionalist ethos of Cedar Rapids artist Grant Wood (1891-1942) and is dedicated to the composer's father. The wind band work is a version of the second movement from the composer's 2013 orchestral piece *American Gothic*, which borrows its name from Wood's famous 1930 painting, shown in Figure 1.41. Daugherty grew up surrounded by Wood's art and first became aware of the artist's work at the age of ten when he enrolled in art classes at the Cedar Rapids Museum of Art.[243] The composer's father was a tour guide at the Grant Wood Studio and hung reproductions of *American Gothic* and *Stone City* (1930) in the Daugherty household.[244]

Figure 1.41: Grant Wood, *American Gothic*, Oil on beaverwood, 1930



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[243] Daugherty, *Winter Dreams*, iv.
[244] Ibid.

Wood was an artist, craftsman, and educator who spent most of his life in Iowa and was a leader of the Regionalist art movement who focused on Midwestern subjects.[245] His art sought to both mock and valorize rural folk, as well as inspire an appreciative artistic audience outside of major American cities.[246] Gaining popularity during a period of social and economic unrest of the early 1930s, Wood emerged as an exemplar of regionally-based, democratic art that stood in opposition of abstract and brutalist European styles.[247] He believed in the richness of American diversity and the need to preserve it in the face of a creeping Euro-centric homogenization of art and, like Daugherty, sought to reestablish the relationship between artist and public through intelligible, unabstracted works.[248] His impressionist compositions portray the solidity and permanence of the Midwestern terrain.[249] Later in his life, in a desperate attempt to earn money after falling out of favor with employers, Wood produced a series of lithograph prints for the Associated American Artists between 1937-41 which depicted various seasonal agricultural rhythms.[250] Two works from this series entitled *January*, Figure 1.42, and *February*, Figure 1.43, serve as the pictorial inspiration for *Winter Dreams*.[251]

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[245] Sue Taylor, "Wood, Grant," in *Grove Art Online* (Oxford: Oxford University Press, 2003), https://doi.org/10.1093/gao/9781884446054.article.T092155.
[246] Taylor.
[247] Barbara Haskell, *Grant Wood: American Gothic and Other Fables* (New York: Whitney Museum of American Art, 2018), 13.
[248] Ibid, 17.
[249] Haskell, 23.
[250] Taylor, "Wood, Grant."
[251] Daugherty, *Winter Dreams*, iii.

Figure 1.42: Grant Wood, *January*, Lithograph, 1940-41

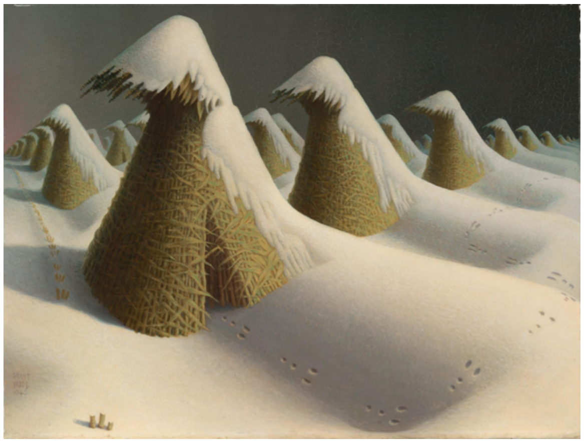
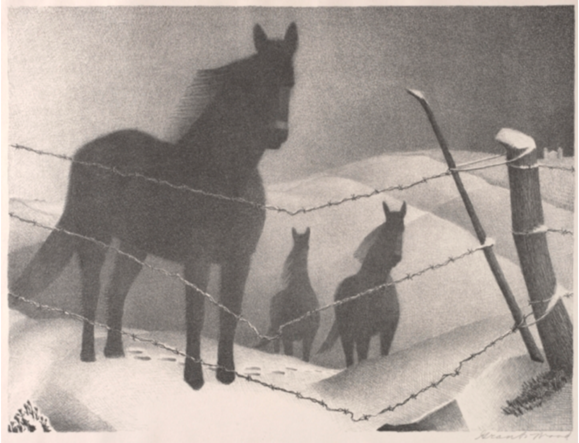


Figure 1.43: Grant Wood, *February*, Lithograph, 1940



In 2012, the composer returned to Eastern Iowa and drove "along the backroads and farms where [his] father grew up and where Grant Wood found inspiration for the people and places captured in his art."[252] He collected musical ideas and mental images to set an emotional framework for the piece. *Winter Dreams* is inspired by the bleak Midwestern winters depicted in Wood's lithographs which the composer musically represents through sparse orchestration, melodic evolution, deft counterpoint, and a modal harmonic palette. As outlined in Figure 1.44, the piece is set in a Rondo-like formal structure which begins and ends with an alto flute recitative.

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[252] Michael Daugherty, *American Gothic* (Ann Arbor, MI: Michael Daugherty Music, 2013), iv.

Figure 1.44: Formal Chart of *Winter Dreams* by Michael Daugherty

Section	*Musical Event*	*Harmonic Center*	*Location*	*Length (measures)*
Recitative	Alto Flute Recitative	G Phrygian	1-13	13
A	Improvisatory Oboe/English Horn	D Dorian/E-flat Pedal	14-34	15
B	"Down in the Valley"	D Dorian	35-40	12
A'	Improvisatory Oboe/English Horn	D Dorian/E-flat Pedal	41-49	9
B'	"Down in the Valley"	E Aeolian	50-65	16
A''	Improvisatory Clarinet	A-flat Lydian	66-79	14
B''	"Down in the Valley"	A Aeolian	80-97	18
Transition	Saxophone Choir	B Phrygian/C Pedal	98-111	14
C	Trumpet Tune, Improvisatory Piccolo	C-sharp Aeolian	112-126	15
Recitative	Alto Flute Recitative	D Aeolian	127-137	11

Identically to the orchestral version,[253] the work begins with the low, hollow sound of solo alto flute playing its lowest possible note, G3, imitating the effect of a low rush of wind on the open plains depicted in Wood's artwork. Thin, shimmering timbres are created through accompanying harp, mallet percussion, and finger cymbal as well as alto flute extended techniques such as key clicks and flutter-tongue. Harmonically, the recitative introduces the principle tonal landscape of a modal center with expressive free harmonic movement. The recitative is centered in G Phrygian, but non-diatonic pitches are added to illicit forward momentum. The increasingly agitated flute solo segues into the first A-section (m. 11-14). Figure

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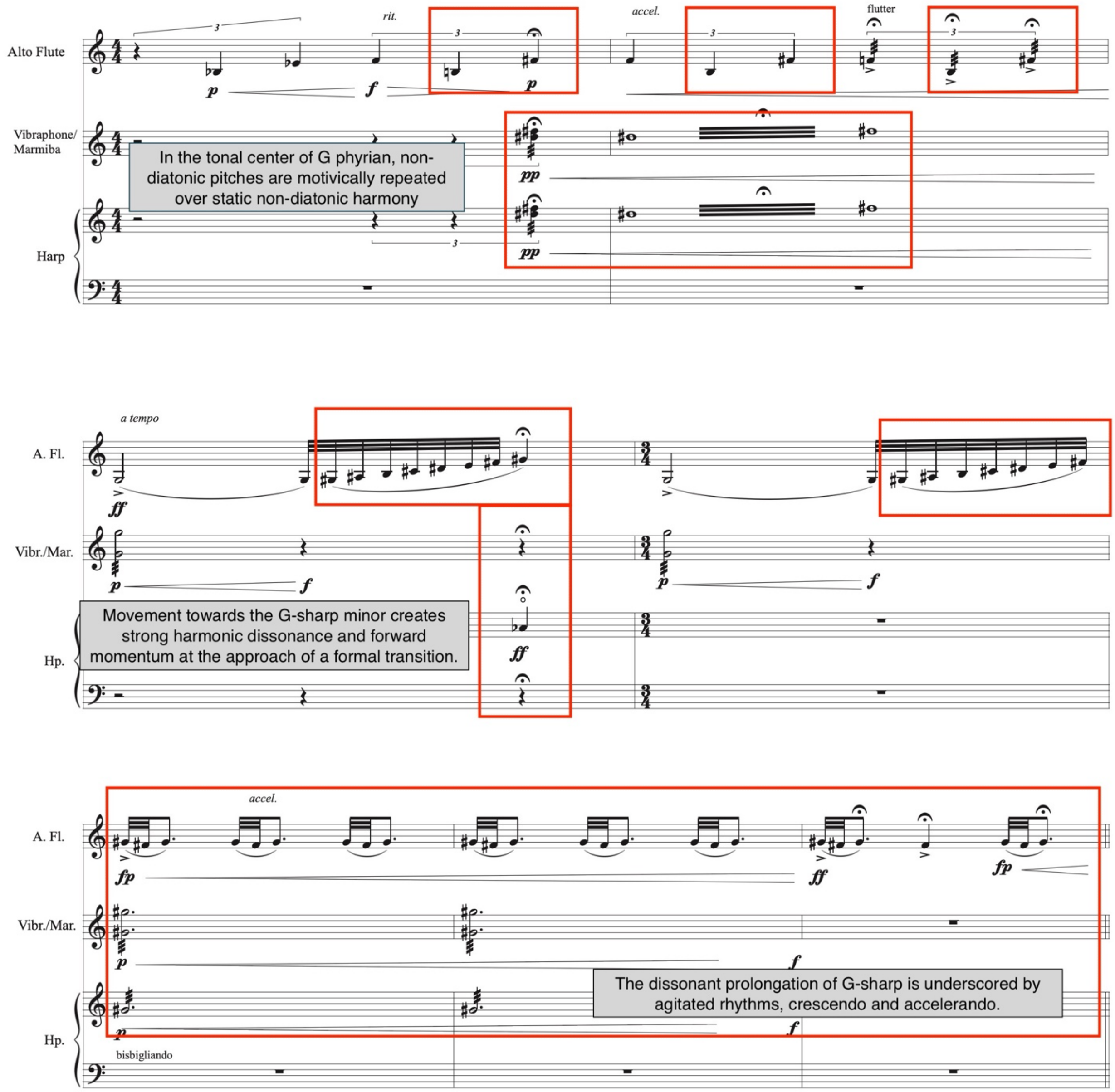
[253] Daugherty, *American Gothic*, 64.

1.45 illustrates how Daugherty combines motivic repetition with dissonance and rhythmic agitation to propel phrases towards formal transitions.

Each of the A-sections contains an improvisatory-like solo or duet accompanied by pedal-point dissonances which surge to *fortepiano* peaks. The accompaniment consists of struck metallic percussion creating a halo of sound which is supported by tremolo harp and celeste, fluttered flute, and muted trumpets. The cold metallic timbres of Daugherty's orchestration invoke Wood's stark wintery scenes. In the first A-section (mm. 14-34) a solo oboe plays the improvisatory line centered in D Dorian set against a static E-flat open harmony. After the English horn joins the solo oboe, the E-flat harmonic tension gives way to D Dorian as the music elides into the first B-Section (m. 26-28).

Figure 1.45: Michael Daugherty, *Winter Dreams*, mm. 7-13 reduction


Alto Flute
Vibraphone/ Marimba
Harp
rit.
accel.
flutter
A. Fl.
Vibr./Mar.
Hp.
a tempo
accel.
bisbigliando

In the tonal center of G phyrian, non-diatonic pitches are motivically repeated over static non-diatonic harmony

Movement towards the G-sharp minor creates strong harmonic dissonance and forward momentum at the approach of a formal transition.

The dissonant prolongation of G-sharp is underscored by agitated rhythms, crescendo and accelerando.

Nearly all the melodic and motivic content within the piece is based upon the popular folk tune "Down in the Valley." The tune which originated as early as 1910 in Alabama was known as "Birmingham Jail" and was popularized after musical duo Darby and recorded the song in 1928.[254] The opening lyrics of the song are as follows:

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[254] Cohen, 332.

> Down in the valley, valley so low
> Hang your head over, hear the wind blow
> Hear the wind blow dear, heard the wind blow
> Hang your head over, hear the wind blow.[255]

Traditionally, the tune is sung at a moderate waltz tempo, however Daugherty uses a technique which he acquired from Frank Sinatra to disguise the melody. When covering a song, Sinatra would sometimes dramatically slow down the music to imbue the tune with new character such as in his 1956 recording of the Cole Porter song "Anything Goes" or his 1957 recording of the Rogers and Hart showtune "Bewitched, Bothered, and Bewildered." A comparison of Figure 1.46 to Figure 1.47, reveals how the refrain of "Down in the Valley,", which returns each B-section, is cast in stark augmentation from the original. Daugherty utilizes the folk tune melody to build musical architecture while drawing upon the lyrics to create atmosphere through orchestration such as the opening flute gesture (i.e., "hear the wind blow).

Figure 1.46: "Down in the Valley" Refrain

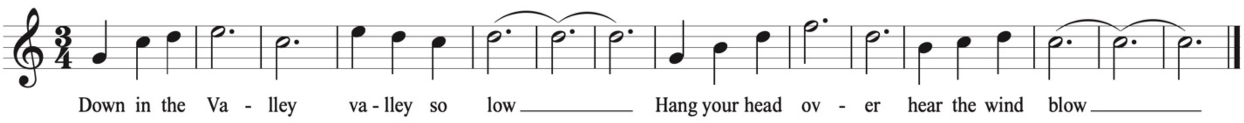
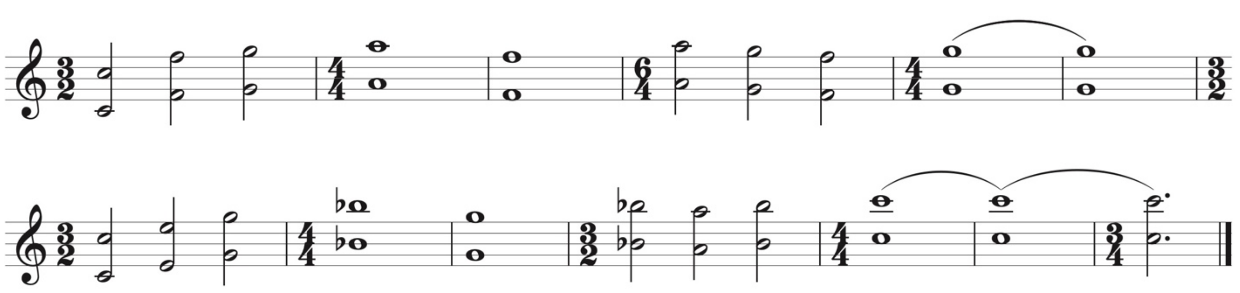

Down in the Va - lley va - lley so low
Hang your head ov - er hear the wind blow

Figure 1.47: Michael Daugherty, *Winter Dreams*, m. 28-33 reduction



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[255] Cohen, 332

The amount of counterpoint and orchestration increases with each return of the B-section; the first (mm. 29-40) is therefore the sparsest. Flutes, clarinets, and marimba play the "Down in the Valley" tune scored in unison octaves accompanied by jewel-box-like chords played by glockenspiel, vibraphone, harp, and celeste. Additionally, bassoons, bass clarinet, and double bass provide pedal-points. The collective effect creates a suspended quality to the music which elicits the vastness of the open Midwestern plains.

After a shortened return of the A material (m. 41-49), the first return of the B material is heard. Harmonically cast a step higher in E Aeolian, the B'-section includes all woodwind and percussion voices inclusive of harp and celeste. A new line of scalar counterpoint is presented by the English horn, bassoons, alto and tenor saxophones, and marimba. The jewel-box accompaniment is rhythmically more active, and the phrases are truncated by one beat. All these factors render a gradually paced expansion of the large-scale architecture. The harmonic trajectory and pacing of the piece allow for repeated material to evolve and, in conjunction with counterpoint, drive towards moments of arrival.

The A material returns a final time at measure 66 and functions as an unfolding retransition to the final "Down in the Valley" refrain. The culminating B''-section involves all voices set in five levels of counterpoint. In addition to returning figures, flutes, oboes, clarinets, and mallet percussion play a contrapuntal line in a Baroque style as shown in Figure 1.48. An ornamented version of the folk tune is played by saxophones and trumpets, Figure 1.49, and the pedal-point bass line is transformed into a harmonic outline played in triadic inversions, Figure 1.50. The music slows to a halt as the harmony takes an unexpected turn from A Aeolian to B Phrygian (m. 96-98).

Figure 1.48: Michael Daugherty, *Winter Dreams*, m. 80-85, Baroque Counterpoint

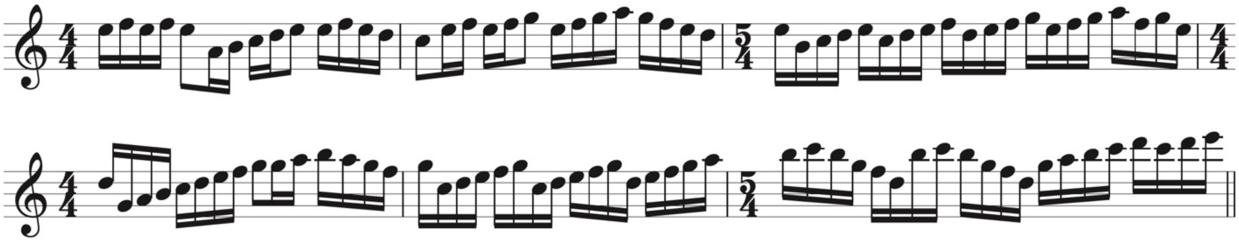


Figure 1.49: Michael Daugherty, *Winter Dreams*, m. 80-89, Ornamented Folk Tune

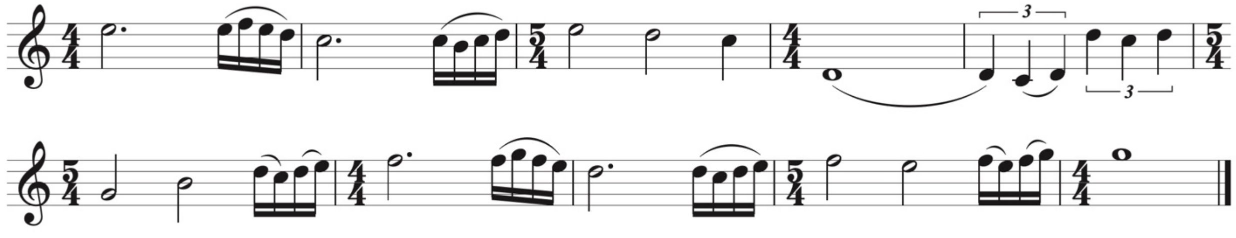
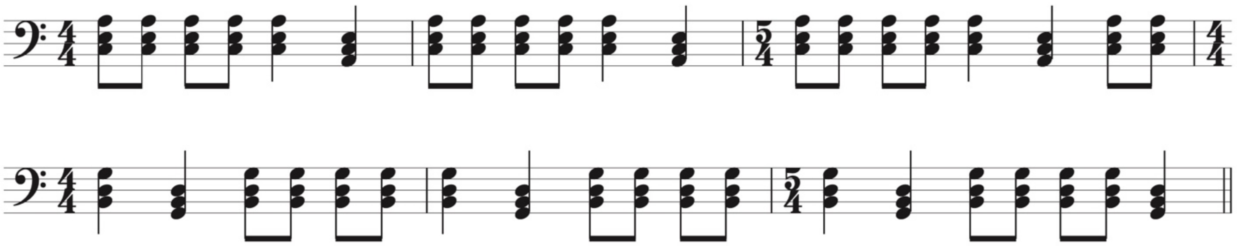
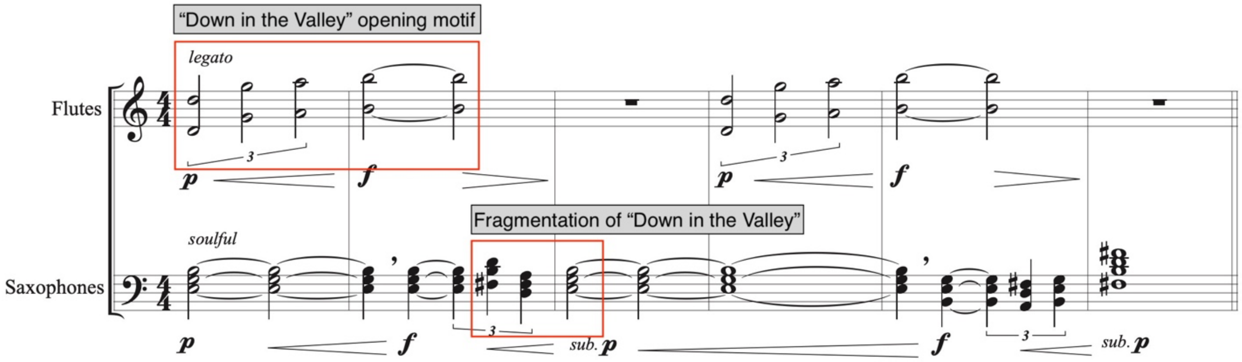


Figure 1.50: Michael Daugherty, *Winter Dreams*, m. 80-82, Triadic Bass Line



The following transition, seen in Figure 1.51, reintroduces a state of calm through a series of overlapping woodwind figures developed from the folk tune melody.

Figure 1.51: Michael Daugherty, *Winter Dreams*, mm. 103-108 reduction


"Down in the Valley" opening motif
legato
Flutes
3
p
f
Fragmentation of "Down in the Valley"
soulful
Saxophones
p
f
sub. p

The music soon dissolves into new material at the moment of yet another coy harmonic shift, this time to C-sharp Aeolian. The repetitive accompaniment of glockenspiel, vibraphone, marimba, celeste, harp, and sleighbells produces a cinematic soundscape of snowfall. In the foreground, a combination of cup- and harmon-muted trumpets play a crooning melody evocative of a Sinatra song while, in stark contrast, solo piccolo plays a rhythmic angular line. The music fades leaving only the faint sound of rolling marimba and vibraphone (mm. 125-127) and the return of the solo alto flute recitative. The harmonic center returns to D Aeolian to complete a large-scale tonal architecture which began at the initial A-section. The piece ends with a glissando downward of ringing percussion which hangs in the silence until fading away.

Daugherty said that his father "was like a character in the background of a Grant Wood painting or lithograph;"[256] *Winter Dreams* musically reflects the lives of these three men from Grand Rapids, Iowa. The composer's chilling orchestration, compelling architecture, and contrapuntal clarity are grounded in the emotional framework of American popular iconography.

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[256] Daugherty, *Winter Dreams*, iii.

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RECITAL TWO PROGRAM

Octet (1948)
Barbara Pentland
(1912-2000)

University of Michigan Concert Band
October 3, 2022

Sea-Blue Circuitry (2011)
Mason Bates
(b. 1977)

Circuits
Marine Snow
Gigawatt Greyhound

University of Michigan Symphony Band
October 27, 2022

Divertimento no. 4 (1795)
Vincente Martín y Soler
(1754-1806)

Allegro – Larghetto – Allegro
Andante poco mosso – Allegro
Allegretto
Allegretto

University of Michigan Symphony Band Chamber Winds
November 11, 2022

Petite symphonie (1885)
Charles Gounod
(1818-1893)

Adagio et Allegretto
Andante cantabile
Scherzo
Finale

University of Michigan Symphony Band Chamber Winds
November 11, 2022

Masquerade for Band, op. 102 (1965)

Vincent Persichetti
(1915-1987)

University of Michigan Concert Band
December 5, 2022

Octet for Winds (1948) Barbara Pentland
(1912-2000)

Barbara Pentland, born January 2, 1912 in Winnipeg, Manitoba, began piano lessons at age nine and shortly after started to compose music which was met with strong disapproval from her conservative and socially prominent parents.[1] Nevertheless, she continued to write throughout her youth in Montreal and was eventually permitted to study composition with Cécile Gauthiez when she transferred to finishing school in Paris in 1929.[2] Pentland's early works from this period reflect Gauhtiez's chromatic tradition of the French Late-Romantic school led by composers César Franck and Vincent D'Indy.[3] In the 1930s however, she avoided the lush textures and harmonic language of nineteenth century composition and focused on the linear qualities of early music, Gregorian chant in particular.[4]

In 1936, Pentland won a fellowship to the Juilliard School where she studied with Frederick Jacobi and Bernard Wagenaar and was exposed to the musical scene of New York City where she discovered the music of Paul Hindemith which served as a model for her increasingly contrapuntal compositional style.[5] She began her 24-year career in higher education in 1939 at the University of Manitoba where she served as an examiner in theory.[6] During the summers of

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[1] "Celebrating Our Legacy: Barbara Pentland Celebration" program, The Canadian Music Centre in British Columbia (November 18, 2016), 3.
[2] Sheila Eastman Loosley, revised by Ron Elliott and Gaynor G. Jones, "Pentland, Barbara (Lally)," in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.21266.
[3] "Celebrating Our Legacy: Barbara Pentland Celebration" program, 5.
[4] Ibid.
[5] Loosley, "Pentland, Barbara (Lally)."
[6] Ibid.

1941 and 1942, she returned to the US to study at Boston University's Tanglewood Institute with Aaron Copland, who, she noted, had a profound effect on her compositional process.[7]

During the 1940s, Pentland placed herself at the forefront of the Canadian avant garde and aimed to define a nationalist compositional style. Frustrated with Canada's reliance on European and American trends, she said:

> The long dependence on the 'mother' country has allowed our resources of native talent to be stifled or exported…before our time, music development was largely in the hands of imported English organists, who, however sound academically, had no creative contribution to make of any general value…larger words of serious intent are apt to remain piled on the Great Canadian Shelf.[8]

In 1942, Pentland became an instructor at the Royal Conservatory of Music of Toronto and in 1949 was invited to join the newly founded music department of the University of British Columbia in Vancouver where she taught until her retirement in 1963.[9] Her compositions of the early 1940s reflect the neoclassicism of Hindemith and Igor Stravinsky, but it was her interaction with Arnold Schoenberg's American pupil Dika Newlin and introduction to the music of Anton Webern in 1947 at the MacDowell Colony, an artist's residency program in Peterborough, New Hampshire, that inspired her to adopt serial techniques.[10]

Pentland's use of twelve-tone methods was never as rigorous as the Second Viennese School's pupils' but rather favored consonance and the modernist tendencies of composers such as Béla Bartók, Copland, and Stravinsky.[11] She described her compositional process as "fairly intuitive" and that serialism was "a kind of governing principle" rather than a "straight jacket."[12] Her first serial work, written while at the MacDowell Colony in 1948, is the *Octet for Winds* and was premiered by soloists from the Toronto Symphony Orchestra on January 12, 1949 in a Canada Broadcasting Corporation radio program.[13]

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[7] Loosley, "Pentland, Barbara (Lally)."
[8] George A. Proctor, *Canadian Music of the Twentieth Century* (Toronto: University of Toronto Press, 1980), 34.
[9] Loosley, "Pentland, Barbara (Lally)."
[10] "Celebrating Our Legacy: Barbara Pentland Celebration" program, 5
[11] Ibid.

The single movement *Octet*, scored for flute, oboe, clarinet, bassoon, two horns, trumpet, and trombone, is divided into four distinct sections as outlined in Figure 2.1.

Figure 2.1: Formal structure of *Octet for Winds* by Barbara Pentland

Tempo Indication	**Measures**	**Contrapuntal Texture**	**Initial Serial Statements**
Allegretto	1-67	Melodic hocket	P_0 (10-pitches)
Lento espressivo	68-92	Two-part polyphony	RI_0 (10-Pitches)
Vivace	93-172	Melodic hocket	RI_{10}
Grave sostenuto	173-220	Four-part chorale	P_0, I_0

The work is based upon the serial row (t5970412e386), however the first and second sections, *Allegretto* and *Lento espressivo* respectively, only utilize the first ten pitches of the prime form. A full serial matrix is shown in Figure 2.2.

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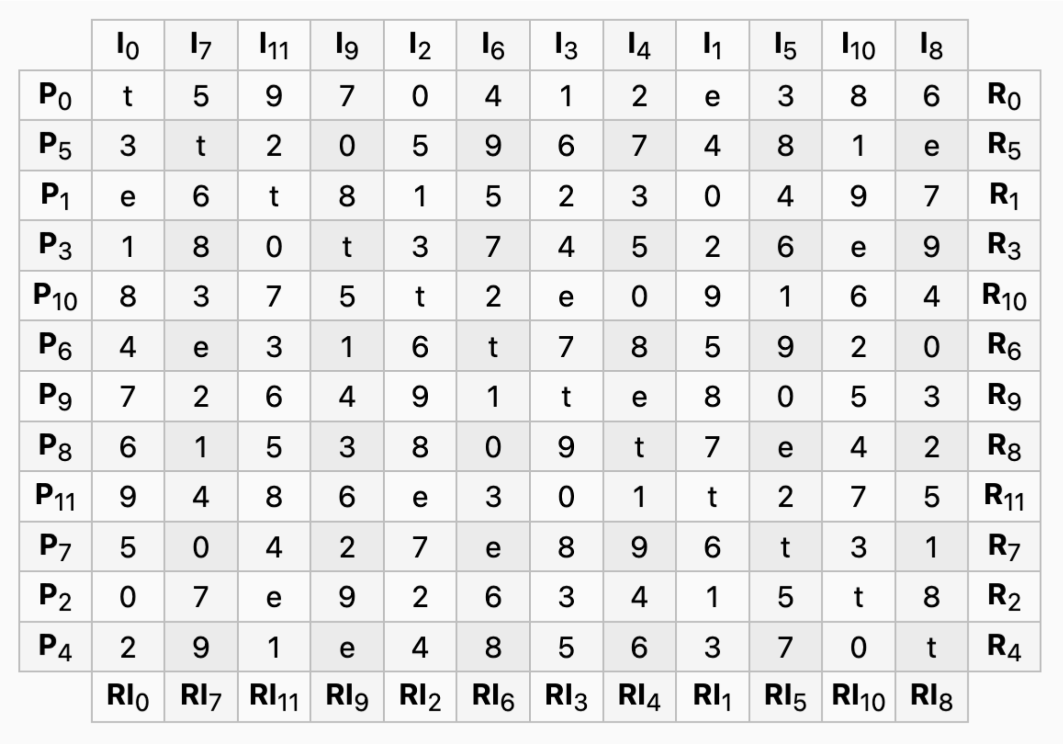
[12] Joseph N. Strauss, *Twelve-Tone Music in America* (Cambridge: Cambridge University Press, 2009), 183.
[13] Timothy Maloney, "Barbara Pentland's *Octet for Winds*," *Canadian Winds* (Fall 2009), 29.

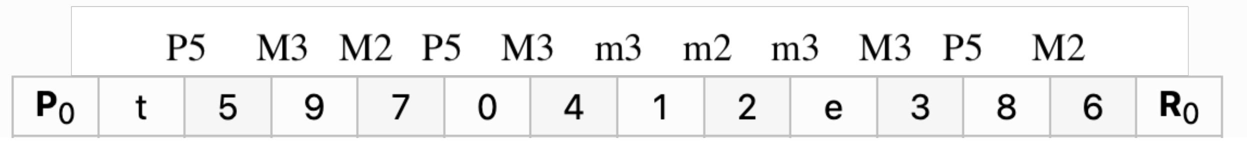
Figure 2.2: Serial Matrix for *Octet for Winds* by Barbara Pentland



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

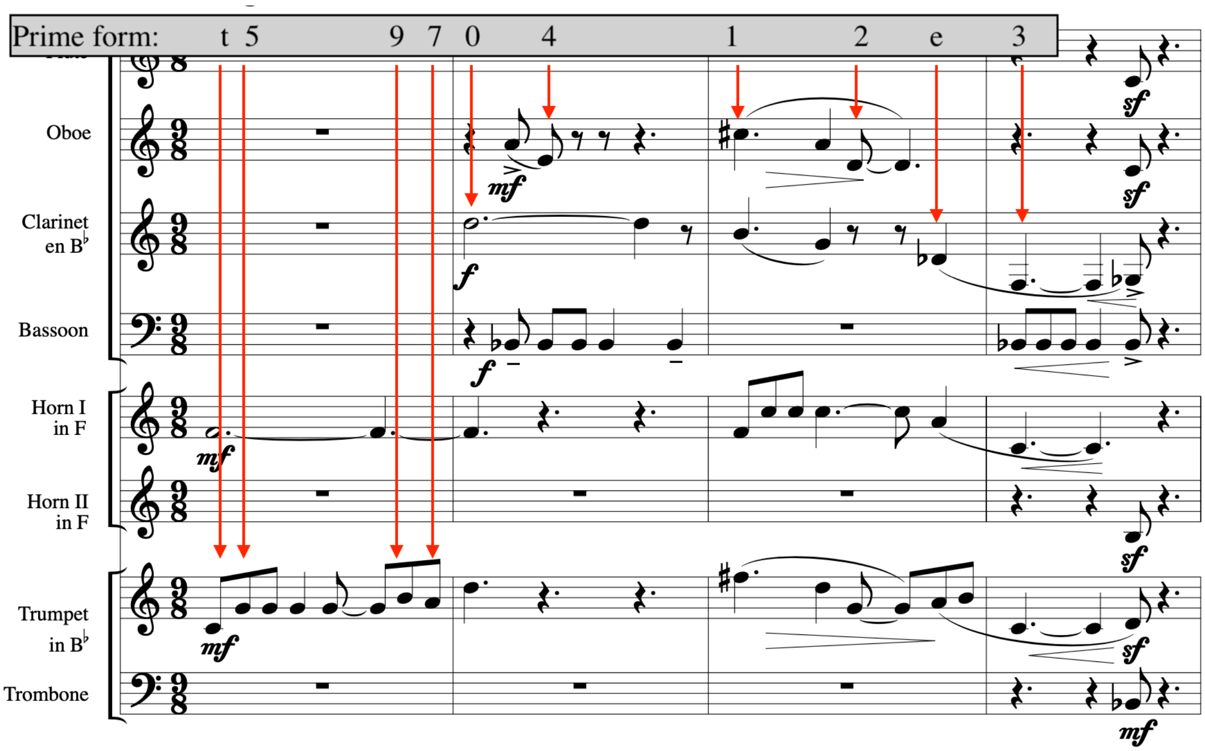
Pentland's preference for consonance is evident in the prime form's interval vector [221330] which is detailed in Figure 2.3. Strict serialism, which sought to assuage the historical hierarchy of pitch, did not allow for the repetition of pitch classes within the statement of a row, however Pentland composed melodic contours which allowed for reiterations. Figure 2.4 outlines the opening phrase of the work which periodically introduces new pitches and renders an overall effect of a B-flat tonal center with chromatic harmony.

Figure 2.3: Interval adjacencies in the Prime form of *Octet for Winds* by Barbara Pentland



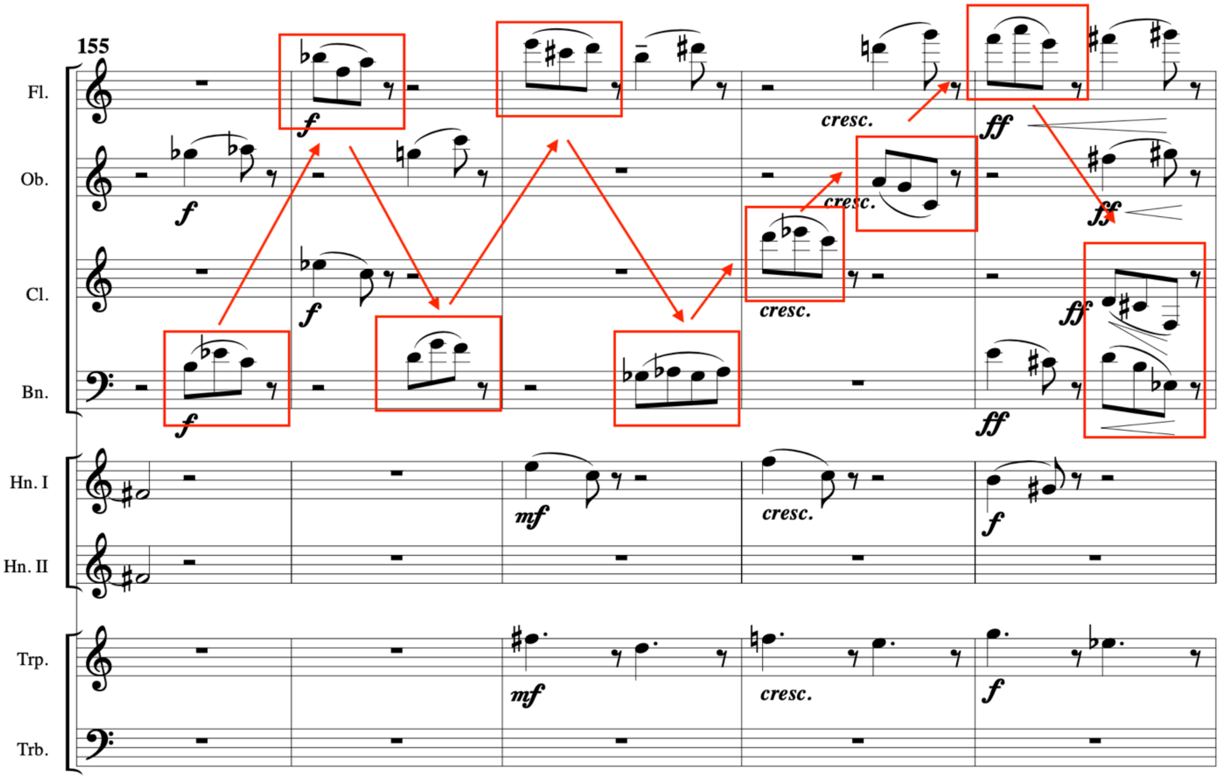
		P5	M3	M2	P5	M3	m3	m2	m3	M3	P5	M2	
P_0	t	5	9	7	0	4	1	2	e	3	8	6	R_0

Figure 2.4: Barbara Pentland, *Octet for Winds*, mm. 1-4


Prime form: t 5 9 7 0 4 1 2 e 3
Oboe
Clarinet en B♭
Bassoon
Horn I in F
Horn II in F
Trumpet in B♭
Trombone
9/8
mf
f
sf

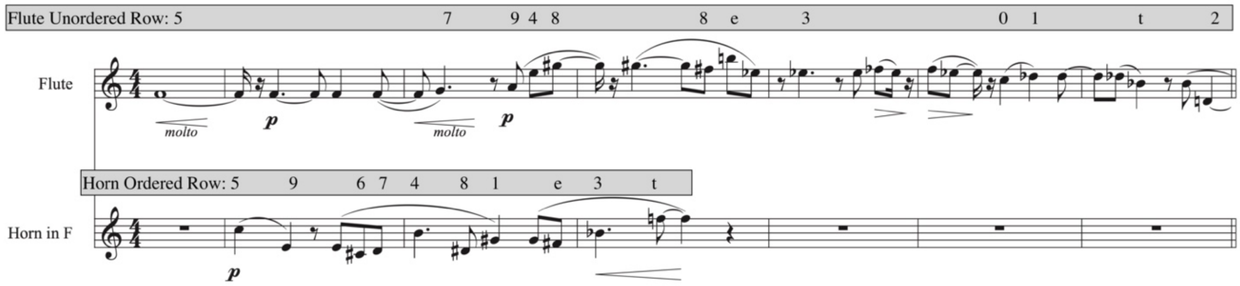
Pentland employs contrasting contrapuntal textures to define each of the four sections; the work begins with melodic hocketing which returns in the *Vivace* section as shown in Figure 2.5.

Figure 2.5: Barbara Pentland, *Octet for Winds*, mm. 155-159


155
Fl.
Ob.
Cl.
Bn.
Hn. I
Hn. II
Trp.
Trb.
f
mf
cresc.
ff

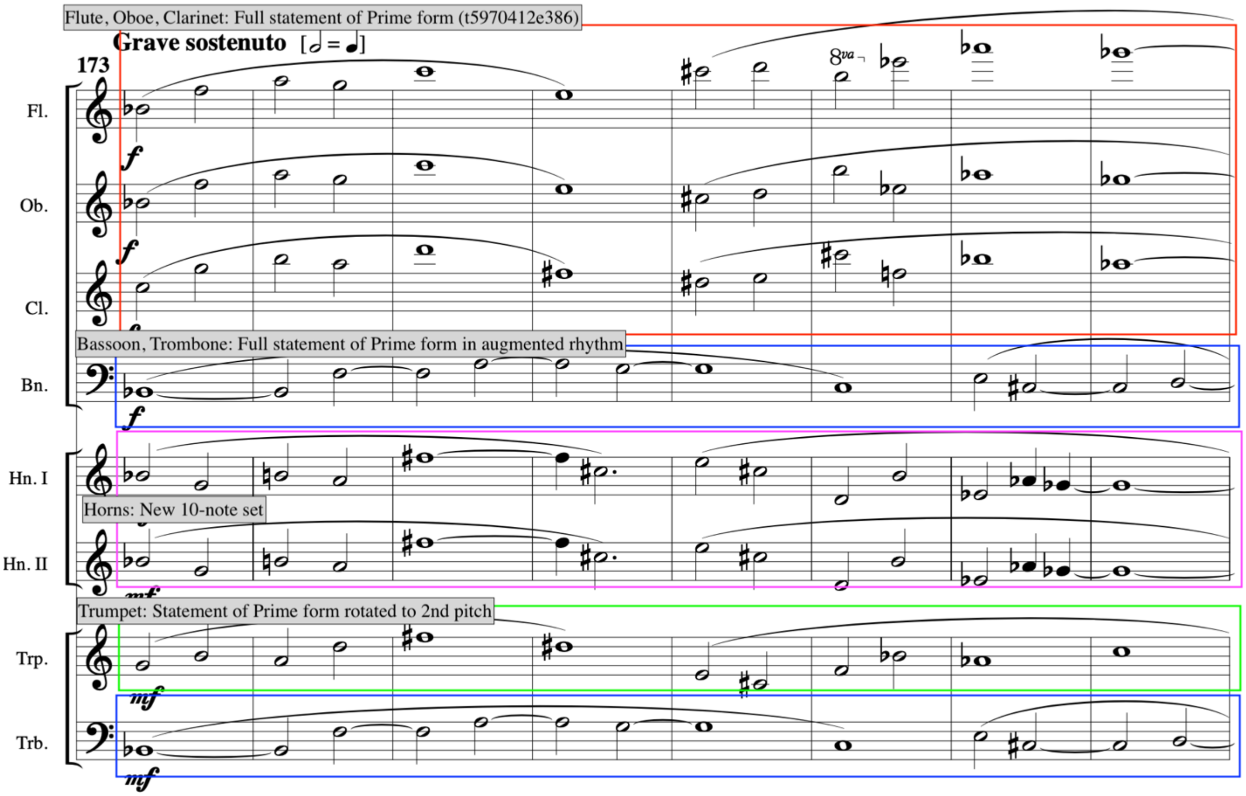
Lento espressivo, set between these two episodes, features two-part polyphonic writing, reflective of Pentland's interest in early music, and opens with ten-pitch statements of RI_0 in the flute and horn, unordered and ordered respectively, as shown in Figure 2.6.

Figure 2.6: Barbara Pentland, *Octet for Winds*, mm. 68-71


Flute Unordered Row: 5 7 9 4 8 8 e 3 0 1 t 2
Flute
molto
p
molto
p
Horn Ordered Row: 5 9 6 7 4 8 1 e 3 t
Horn in F
p

The closing *Grave sostenuto* features the first full statements of the Prime form which Pentland uses at three distinct rhythmic levels to create a four-part chorale texture as outlined in Figure 2.7. The opening phrase also includes a new ten-pitch serial row (3042e69781) presented by the horns which renders a return to the opening tonal center of B-flat with chromatic harmony.

Figure 2.7: Barbara Pentland, *Octet for Winds*, mm. 173-180


Flute, Oboe, Clarinet: Full statement of Prime form (t5970412e386)
Grave sostenuto
173
Fl.
Ob.
Cl.
Bassoon, Trombone: Full statement of Prime form in augmented rhythm
Bn.
Hn. I
Horns: New 10-note set
Hn. II
Trumpet: Statement of Prime form rotated to 2nd pitch
Trp.
Trb.
f
mf
8va

Pentland's *Octet for Winds* maintains many of her early compositional influences while integrating her nascent interest in the serial techniques of the Second Viennese school. After composing the *Octet,* Pentland attended the Darmstadt International Courses for New Music in the 1950s which codified her serial compositional style.[14]

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[14] Loosley, "Pentland, Barbara (Lally)."

Sea-Blue Circuitry (2010) Mason Bates
(b. 1977)

Artist Mason Bates devotes his energies equally to the traditionally opposite musical realms of classical and electronic dance music (EDM). Bates was born in Philadelphia, Pennsylvania on January 23, 1977 but was raised in Richmond, Virginia in what he described as a conservative environment without a strong musical background.[15] Bates and his older brother both studied piano as children, but it was Mason who gravitated towards music and began studying composition in his youth.[16] After receiving his first commission while in high school, Bates enrolled simultaneously at Columbia University in English literature and the Juilliard School in music composition.[17] By day, he attended schools on the Upper West Side of Manhattan and studied composition with John Corigliano, David Del Tredici, and Samuel Adler,[18] but by night, Bates found his way into the Lower East Side's electronica scene where he started his career as a DJ.[19] Bates began spinning records at parties and in nightclubs while submersing himself into the worlds of EDM and hip-hop music.[20]

After six years in New York City, Bates completed a master's degree in composition from Juilliard as well as a bachelor's degree with honors in American and medieval literature from Columbia, and in 2001, he moved to San Francisco to pursue his electronica career under the pseudonym "DJ Masonic."[21] He received a fellowship in 2003 to work and live in Rome where he discovered the Italian capitol's underground electronica scene, and in 2005, he took up residence in Berlin to explore its ultraprogressive EDM scene.[22] It was between these two European sojourns that Bates received his first commission by a major orchestra, the Los Angeles Philharmonic, to compose a work which integrated his EDM background.[23] *Omnivorous Furniture for sinfonietta and electronica* premiered in 2004 as part of the LA Philharmonic's Green Umbrella concert series and utilizes the processed electronic soundscape of EDM as, the composer describes, "a new section" within the orchestra.[24]

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[15] Donna Perlmutter, "Concerto for two universes," Los Angeles Times, October 31, 2004, https://www.latimes.com/archives/la-xpm-2004-oct-31-ca-bates31-story.html.
[16] Ibid.
[17] James Bash, "Bates, Mason," in *Grove Music Online* (Oxford: Oxford University Press, 2012), https://doi.org/10.1093/gmo/9781561592630.article.A2227731.
[18] Ibid.
[19] Perlmutter, "Concerto for two universes."
[20] Joshua Kosman, "Composer charts new territory with marriage of classical and trip-hop," *San Francisco Chronicle*, March 22, 2006, http://www.sfgate.com/ cgi-bin/article.cgi?f=/c/a/2006/03/22/DDG7RHRC461.DTL.
[21] Andrew Druckenbrod, "Composer/club DJ Mason Bates challenges the symphonic norm with classical electronica: Preview," Washington, D.C.: *McClatchy – Tribune Business News*, February 18, 2010, https://proxy.lib.umich.edu/login?url=https://www.proquest.com/wire- feeds/composer-club-dj-mason-bates-challenges-symphonic/docview/458654108/se-2?accountid=14667.

Omnivorous Furniture is the first of many compositions by Bates which synthesize the familiar elements of EDM with his classical composition background. His work *Rusty Air in Carolina* was composed for the Winston-Salem Symphony Orchestra in 2006 and explores the mixture of full orchestral forces alongside audio samples of the outdoors in the American South replete with the sounds of insects, streams, and birdcalls.[25] *Concerto for Synthesizer and Orchestra* was composed to feature Bates on synthesizer drum pad and his *Liquid Interface*, written for Leonard Slatkin and the National Symphony Orchestra in 2007, uses a combination of EDM elements with sound samples of calving glaciers to explore the issue of global warming.[26]

According to the Bates, these works are not exercises in "crossover" but rather the fusion of contemporary popular and art music.[27] The composer said that *Omnivorous Furniture* "has as much to do with Schoenberg's *Chamber Symphony* as with drum-and-bass beats."[28] Bates, who integrates the pseudo-instrumental textures of electronica into the orchestra, continues the compositional tradition of drawing upon vernacular dance styles which can be seen from the Baroque dance suites of J.S. Bach to the Classical symphonic works of Franz Joseph Haydn.

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[22] Perlmutter, "Concerto for two universes."
[23] Bash, "Bates, Mason."
[24] Druckenbrod, "Composer/club DJ Mason Bates challenges the symphonic norm with classical electronica: Preview."
[25] Bash, "Bates, Mason."
[26] Ibid.
[27] Kosman, "Composer charts new territory with marriage of classical and trip-hop."
[28] Ibid.

Bates draws inspiration from the more contemporary composer George Gershwin who incorporated elements of jazz and the music of Tin Pan Alley into his works for the concert hall. Electronica, according to Bates, is a step-child of minimalism, innovated in the 1970s by composers such as Philip Glass and Steve Reich, with its slowly shifting textures and repetitive rhythmic motifs.[29] Bates's inclusion of technology into the concert hall also looks back to composers in the late-1940s, such as Pierre Henry and Pierre Schaeffer, who spliced sounds samples on reel-to-reel tape to construct an electronic piece of music in a style they named *musique concrète*.[30] Following this trend in 1954, Varèse premiered his work *Déserts* for winds, percussion, and tape which innovated the use of tape-to-tape reel recordings in tandem with live performers.[31]

Electronica took root in the techniques of *musique concrète* as well as with popular Jamaican dub reggae producers like Osbourne "King Tubby" Ruddock and Lee "Scratch" Perry who, in the 1970s, created reggae remixes by experimenting with various studio techniques that emphasized bass frequencies, a practice which led to the inception of dance and rave culture.[32] Giorgio Moroder, producer of disco in the 1970s, released the 1977 landmark single "I Feel Love" by Donna Summer which solely utilized electronic samples as accompaniment to Summer's vocals, the first commercial record to do so.[33] Digital sampling became much easier in the 1980s with the proliferation of inexpensive portable synthesizes and the release of MIDI (Musical Instrument Digital Interface) protocol.[34] With the advent of the personal computer and the internet, the wide distribution of digital audio and software has allowed for ubiquitous access and caused a global development of EDM metagenres, of which, in 1999, CD publishers recognized some 300 including "acid-beats," "Chicago garage," "progressive low frequency," and "neurofunk" just to name a few.[35] Mason Bate's compositions are influenced by his exposure to underground European rave electronica which is defined by layers of synthetic sounds superimposed over a heavy steady beat.

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[29] Kosman, "Composer charts new territory with marriage of classical and trip-hop."

[30] Stephen Brookes, "NSO Gives a DJ his cute, and techno its due; Composer Mason Bates turns on electronica to keep classical music current," The Washington Post, February 21, 2007, https://proxy.lib.umich.edu/login?url=https://www.proquest.com/newspapers/nso-gives-dj-his-cue-techno-due-composer-mason/docview/410145539/se-2.

[31] Paul Griffiths, "Varèse, Edgard [Edgar] (Victor Achille Charles)," in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.29042.

[32] Geeta Dayal and Emily Ferrigno, "Electronic Dance Music [EDM]," in *Grove Music Online* (Oxford: Oxford University Press, 2012), https://doi.org/10.1093/gmo/9781561592630.article.A2224259.

[33] Dayal, "Electronic Dance Music [EDM]."

Rather than write another piece for ensemble and electronics, the composer chose to "explore ways of recreating the precision of electronica through instruments alone" in his work *Sea-Blue Circuitry* which he completed in 2010. The work, commissioned by Gary Green, former director of bands at the Frost School of Music at the University of Miami, is divided into three continuous movements entitled "Circuits," "Marine Snow," and "Gigawatt Greyhound." As the title implies, the piece juxtaposes two contrasting styles: groove-based electronica emulating the rapid firing within computer circuitry and slowly undulating waves of harmony which evoke ocean ecosystems, Bates's acknowledgment to the Floridian premiere.[36]

In lieu of electronica tracks, the composer utilizes several instrumental effects and unique percussion instruments to imitate processed dance music. EDM is built "from the beats up"[37]; a percussive foundation is established, and layers of various source materials are overlaid that rhythmic foundation. Figure 2.8 outlines the percussion groove at the beginning of

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[34] Dayal, "Electronic Dance Music [EDM]."

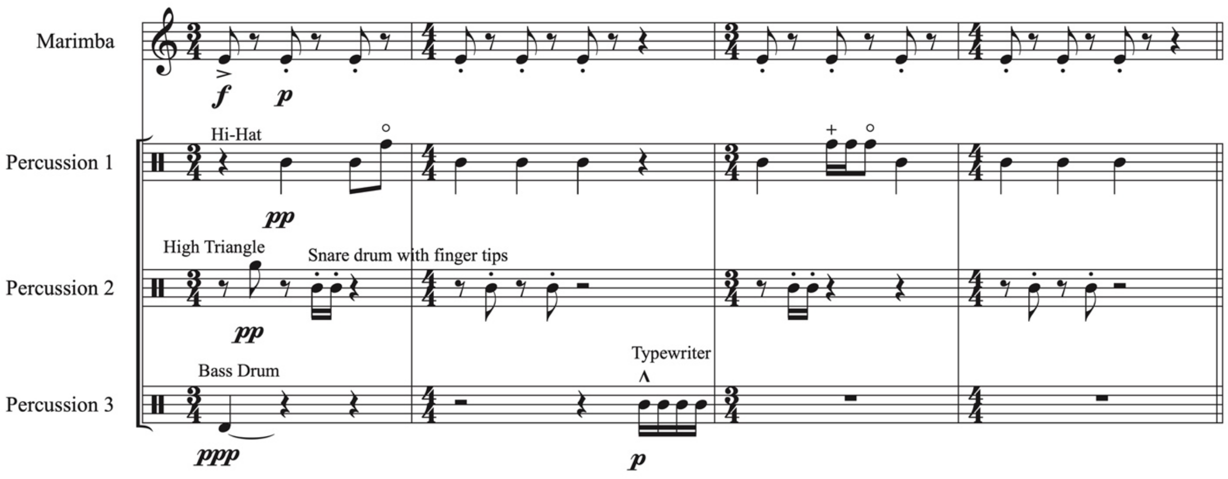
[35] Ewa Mazierska, Les Gillon, and Tony Rigg, "Introduction: The past and future of electronic dance music," in *The Evolution of Electronic Dance Music*, edited by Mazierska, Ewa, Les Gillon, and Tony Rigg (New York: Bloomsbury Publishing, Inc., 2021), 3.

[36] Mason Bates, *Sea-Blue Circuitry for Wind Ensemble* (Self-published), 2011, 1.

[37] Dayal, "Electronic Dance Music [EDM]."

"Circuits" which is repeated as music in the winds varies each phrase. Inspired by the release of the Roland TR-808 drum machine in 1980, the sounds of which are still utilized today,[38] the percussion texture mimics the typical sounds of electronica through the use of hi-hat, triangle, snare drum (played here lightly with fingertips), and bass drum. Additionally, Bates includes two non-traditional percussion instruments to create the cybernetic soundscape of the opening movement. First, as shown in Figure 2.8, an old metal typewriter punctuates the dance groove, and second, Bates includes the less common rototoms, Figure 2.9, which are variable pitched drums that can be tuned by rotating the heads giving them the sound quality of drum machine samples.

Figure 2.8: Mason Bates, *Sea-Blue Circuitry*, mm. 11-14, percussion


Marimba
f
p
Percussion 1
Hi-Hat
pp
Percussion 2
High Triangle
Snare drum with finger tips
pp
Percussion 3
Bass Drum
ppp
Typewriter
p

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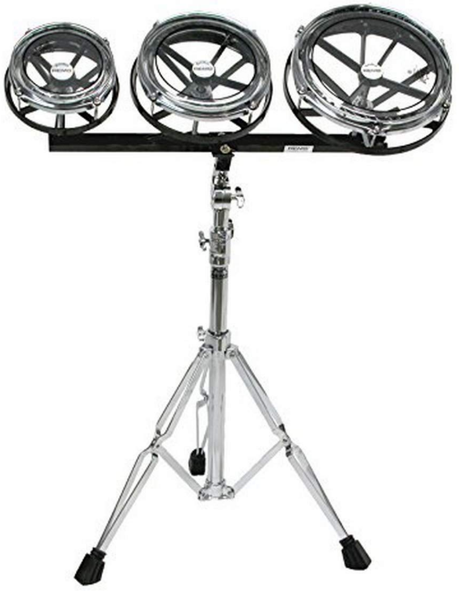
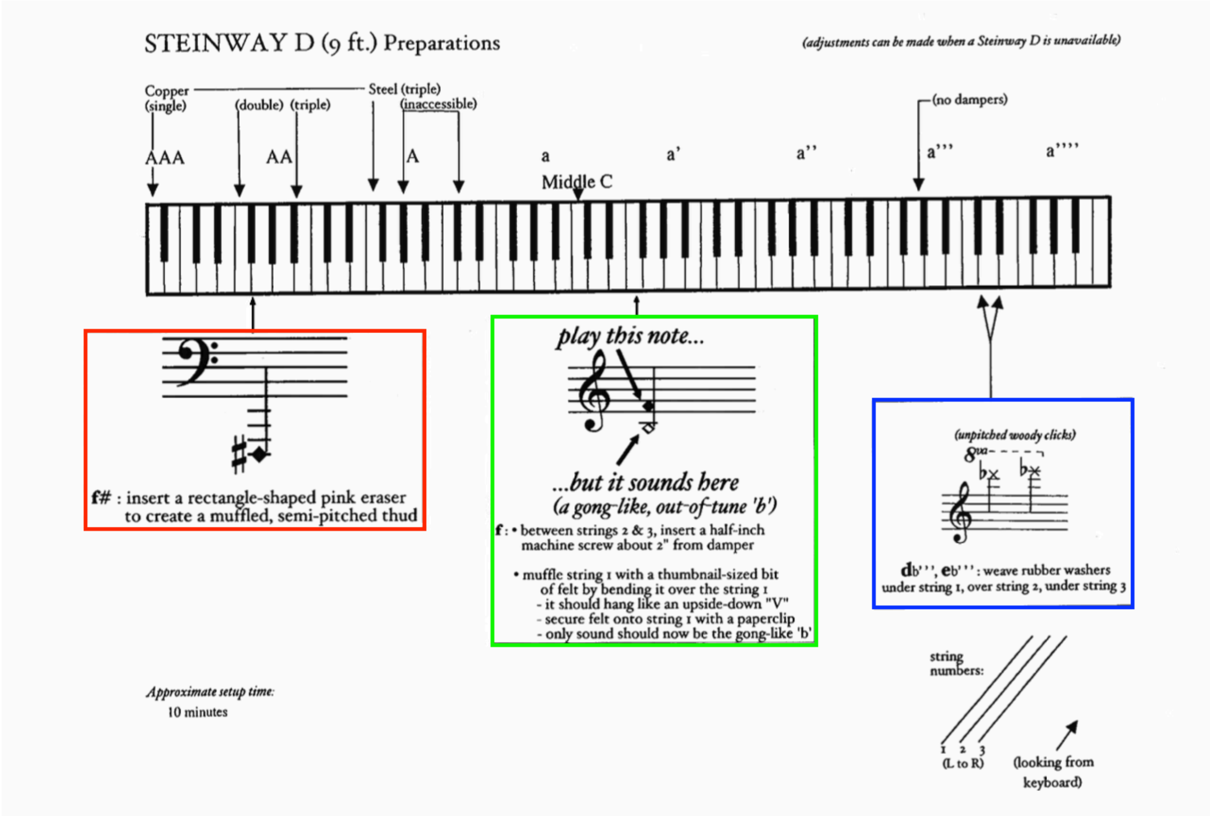
[38] Dayal, "Electronic Dance Music [EDM]."

Figure 2.9: Remo Rototom



The piano acts as a melodic force as well as a percussion instrument through the preparation of strings within the instrument as shown in Figure 2.10. Outlined in red, an eraser placed between the F-sharp1 strings creates a semi-pitched thud reminiscent of an 808 drum machine. In the underwater music of "Marine Snow," the piano plays a haunting gong-like sound created by muffling strings of F4, outlined in green. Finally, rubber washers are woven around the strings of D-flat7 and E-flat7 to create a deadened hammering sound, outlined in blue, which Bates pairs with snare drum in "Gigawatt Greyhound."

Figure 2.10: Mason Bates, *Sea-Blue Circuitry*, prepared piano instructions


STEINWAY D (9 ft.) Preparations

(adjustments can be made when a Steinway D is unavailable)

Copper (single)
(double) (triple)
Steel (triple)
(inaccessible)
(no dampers)
AAA
AA
A
a
Middle C
a'
a''
a'''
a''''
play this note...
...but it sounds here
(a gong-like, out-of-tune 'b')
(unpitched woody clicks)
8va
string numbers:
1 2 3
(L to R)
(looking from keyboard)

f# : insert a rectangle-shaped pink eraser to create a muffled, semi-pitched thud

f : • between strings 2 & 3, insert a half-inch machine screw about 2" from damper

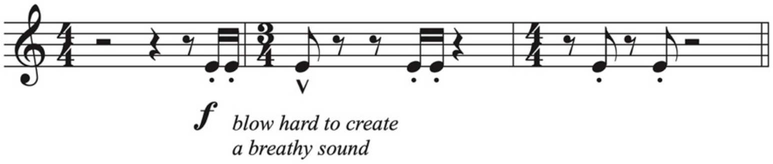
• muffle string 1 with a thumbnail-sized bit of felt by bending it over the string 1
- it should hang like an upside-down "V"
- secure felt onto string 1 with a paperclip
- only sound should now be the gong-like 'b'

db''', eb''' : weave rubber washers under string 1, over string 2, under string 3

Approximate setup time:
10 minutes

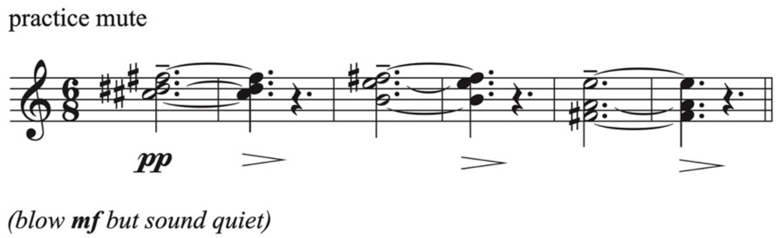
Bates also utilizes various wind instrument extended techniques and brass mutes to enhance the synthetic soundscape. In “Circuits” flutes are instructed to “blow hard to create a breathy sound,” as shown in Figure 2.11, to enhance the beat-centric groove percussion pattern.

Figure 2.11: Mason Bates, *Sea-Blue Circuitry*, mm. 6-8, flutes


f
blow hard to create
a breathy sound

The brass sections employ various mutes including Harmon mutes with and without stems, straight mutes, along with stopped horns to create various degrees of color which reflect electronica’s gradation of distortion. A unique color is created by trumpets with practice mutes, Figure 2.12, which yields a faint, distant timbral wash.

Figure 2.12: Mason Bates, *Sea-Blue Circuitry*, m. 181-186, trumpets



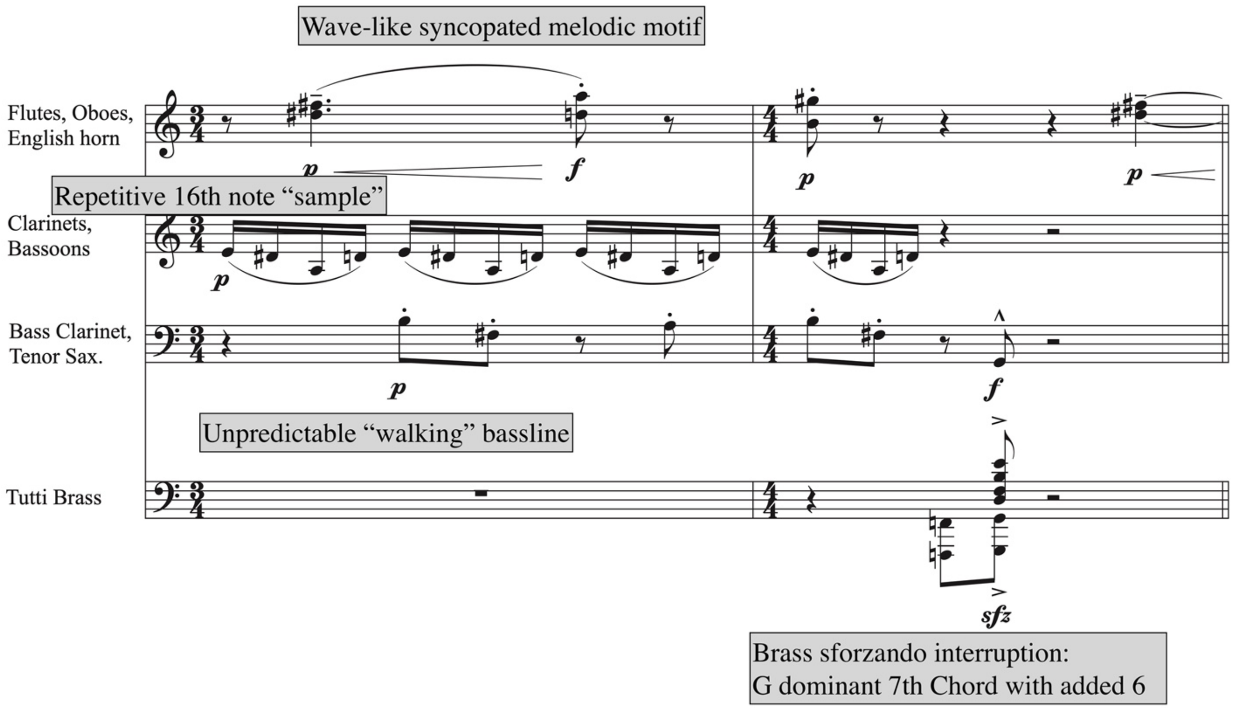
Each of the movements unfolds in a through-composed manner, however there are aspects of formal recall; the work's form reflects the steady evolution of electronica, inspired by minimalism, and is outlined in Figure 2.13.

Figure 2.13: Mason Bates, *Sea-Blue Circuitry*, Formal Structure

I. Circuits			
Formal Area	Sub-Area	Measures	Tonal Center
A	a	1-28	E
	b	29-50	
	c	51-76	C
B	a	77-88	E
A'	a	89-106	
	b'	107-120	
	c'	121-128	
Tr	a	129-148	
II. Marine Snow			
Formal Area	Sub-Area	Measures	Tonal Center
C	a	149-186	E
D	a	187-223	
	a_{tr}	224-235	
III. Gigawatt Greyhound			
Formal Area	Sub-Area	Measures	Tonal Center
E	a	236-271	F-sharp
F	a	272-296	
G	a	297-329	
	a_{tr}	330-335	
A'	a	336-360	B
G	a	361-371	
F'	a'	372-382	
	a_{k}	383-388	

Bates described the rhythmic grooves of “Circuits” as “data quietly flashing on the silicon innards of a computer.”[39] A rhythmic pattern of seven beats is established before he elongates and diminishes it at the ends of phrases and subtly shifts the melodic figures within the established groove in imitation of electronica’s evolutionary style. The repetitious lines of melody and accompaniment are accentuated by interjections of jazz harmonies in the brass which interrupt the steady flow of rhythm, as seen in Figure 2.14.

Figure 2.14: Mason Bates, *Sea-Blue Circuitry*, m. 45-46


Wave-like syncopated melodic motif
Flutes, Oboes, English horn
Repetitive 16th note “sample”
Clarinets, Bassoons
Bass Clarinet, Tenor Sax.
Unpredictable “walking” bassline
Tutti Brass
p
f
p
p
p
f
sfz
Brass sforzando interruption:
G dominant 7th Chord with added 6

At measure 77, the electronica soundscape is briefly interrupted by a fleeting episode which foreshadows the slow undulating music of the second movement. Here, the composer employs the tonal shift from E major to C major which he revisits at the points of transition into “Marine Snow,” however the tonal center quickly refocuses on E major.

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[39] Bates, *Sea-Blue Circuitry for Wind Ensemble*, 1.

The title of the second movement references the oceanic phenomenon of the same name. Marine snow, according to the National Oceanic and Atmospheric Association, is described as the following:

> As plants and animals near the surface of the ocean die and decay, they fall towards the seafloor, just like leaves and decaying material fall onto the forest floor…In addition, [it] also includes sand, soot, and other inorganic dust. The decaying material…looks like white fluffy 'snowflakes' that grow as they fall…Some flakes fall for weeks before finally reaching the ocean floor.[40]

The gentle lilt of 6/8 and slow changing harmonic colors evoke an underwater atmosphere. The kaleidoscopic orchestration and wave-like dynamic structures enhances the fluidity of harmony as shown in Figure 2.15. The entire movement follows an arch contour which builds to and away from measure 202. The closing material of "Marine Snow" returns to the sparse orchestration of its opening, and slow rhythmic agitation segues into the final movement.

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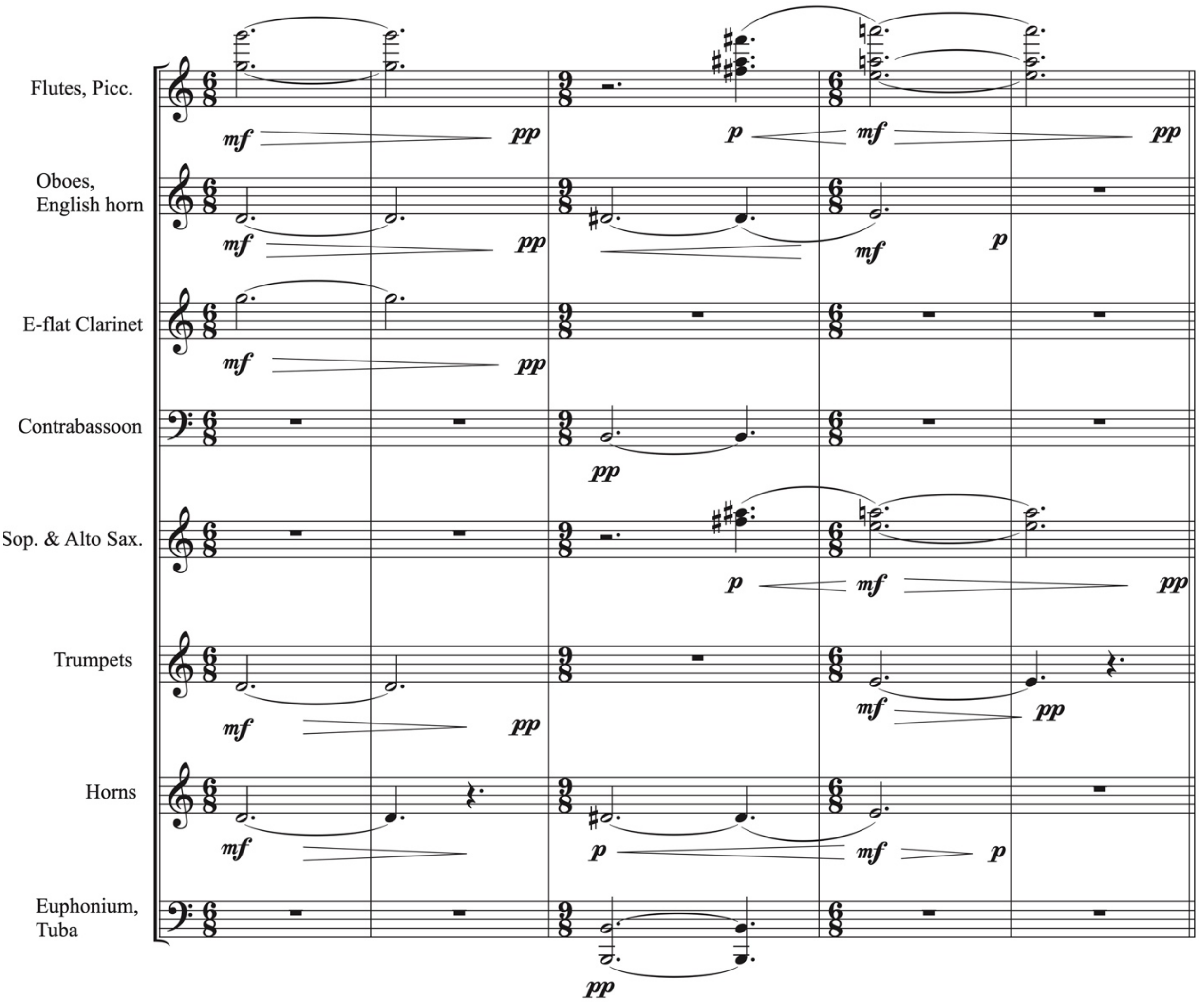
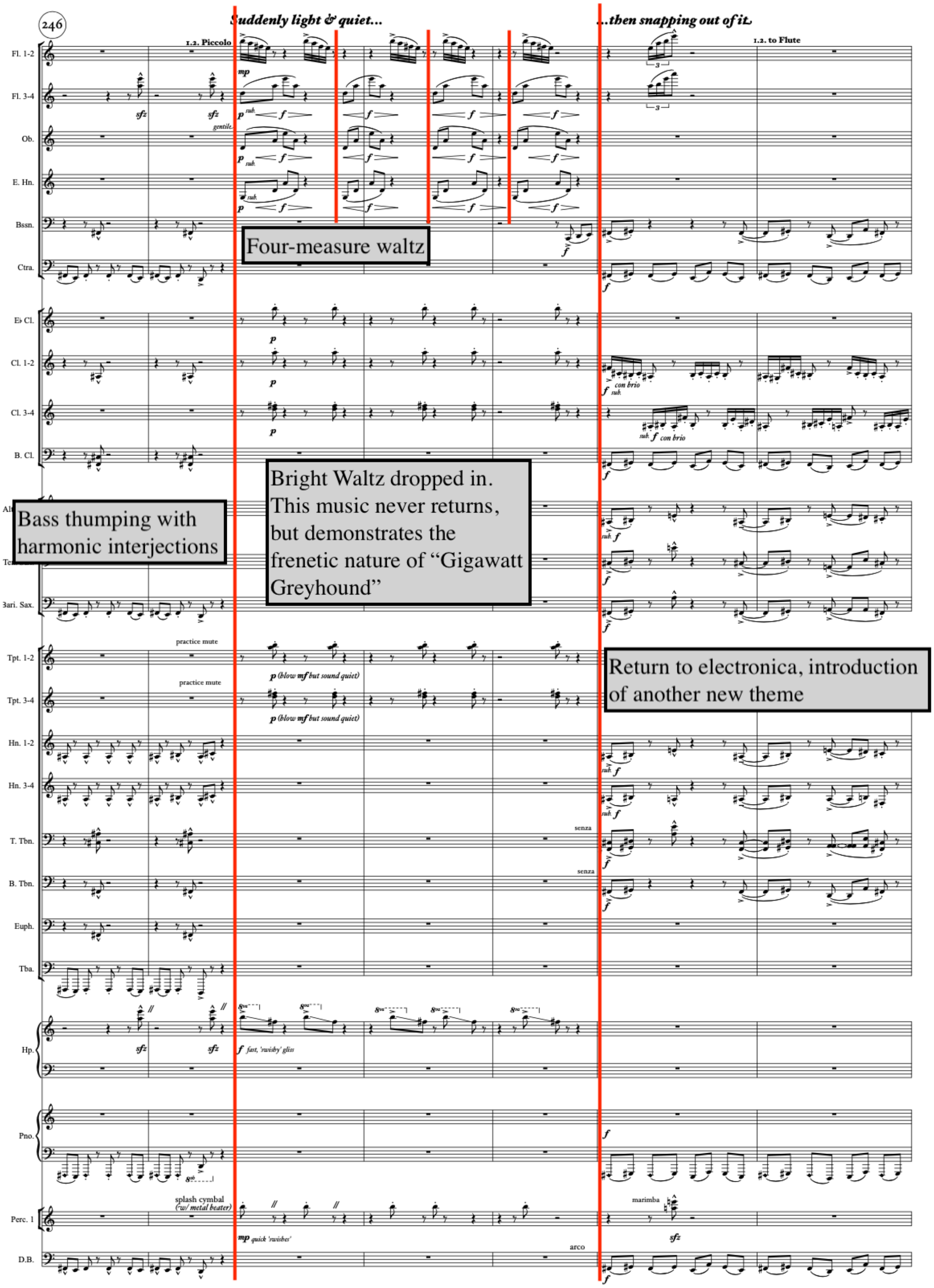
[40] "What is marine snow?," *National Oceanic and Atmospheric Administration* (Department of Commerce website), https://oceanservice.noaa.gov/facts/marinesnow.html, accessed February 12, 2023.

Figure 2.15: Mason Bates, *Sea-Blue Circuitry*, mm. 172-176


Flutes, Picc.
Oboes, English horn
E-flat Clarinet
Contrabassoon
Sop. & Alto Sax.
Trumpets
Horns
Euphonium, Tuba
mf
pp
p

"Gigawatt Greyhound" returns to electronica's rhythmic persistence but the insistent bass pedal F-sharps, reinforced with prepared piano, reflects the techno-rave style from Bates's time in Berlin. Whereas "Circuits" used a compact collection of motifs which evolved across the movement, the final movement rapidly shifts material each phrase, as outlined in the score excerpt shown in Figure 2.16.

Figure 2.16: Mason Bate, *Sea-Blue Circuitry*, mm. 246-252


246
Suddenly light & quiet...
...then snapping out of it.
1.2. Piccolo
1.2. to Flute
Fl. 1-2
Fl. 3-4
Ob.
E. Hn.
Bssn.
Ctra.
E♭ Cl.
Cl. 1-2
Cl. 3-4
B. Cl.
Bari. Sax.
Tpt. 1-2
Tpt. 3-4
Hn. 1-2
Hn. 3-4
T. Tbn.
B. Tbn.
Euph.
Tba.
Hp.
Pno.
Perc. 1
D.B.
gentile
con brio
practice mute
p (blow mf but sound quiet)
f fast, 'swishy' gliss
splash cymbal (w/ metal beater)
mp quick 'swishes'
marimba
senza
arco

Four-measure waltz

Bass thumping with harmonic interjections

Bright Waltz dropped in. This music never returns, but demonstrates the frenetic nature of “Gigawatt Greyhound”

Return to electronica, introduction of another new theme

Amidst the changing musical landscape, another water-like episode emerges at measure 297, but the phrases are segmented into two-measure units punctuated by interjections of electronica and results in the return of the work's opening material from "Circuits" transposed upward to the brighter tonal center of B major. The work concludes with a restatement of the opening of "Gigawatt Greyhound" scored more densely and remaining in the newly established tonal center. *Sea-Blue Circuitry* skillfully utilizes the forces of acoustic wind and percussion instruments to synthesize classical art and electronic dance music.

Divertimento no. 4 (1795) Vincente Martín y Soler (1745-1806)

Vicente Martín y Soler was a leading composer in Vienna in the late-1780s whose operatic works rivaled those of Wolfgang Amadeus Mozart. As in the case of Mozart, Martín's compositional career can be traced to his movement across Europe seeking employment. Born in Valencia May 2, 1754, Martín first gained employment in 1775 in the court of Madrid composing for the future king, Charles IV.[41] The Spanish Bourbons were closely connected to the aristocracy of Naples, and Martín traveled to the Italian city in 1777 to serve the monarch's brother, Ferdinand IV.[42] The city was the center of Italian musical development, and the queen of Naples, Maria Carolina, was a sister of Joseph II, emperor of Austria.[43] Martín then set roots in Venice in 1782 and wrote a number of *opera buffa,* comic operas, while fostering additional Viennese connections with Count Durazzo, ambassador to Vienna, and famed soprano Nancy Storace.[44] The composer premiered works in Turin and Parma where other Hapsburg and

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[41] Dorothea Link, "Martín y Soler, (Atanasio Martín Ignacio) Vincente (Tadeo Francisco Pellegrin)," in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.17943.

[42] Ibid.

[43] Ibid.

[44] Dorothea E. Link, "The Da Ponte Operas of Vincente Martín y Soler" (PhD diss., University of Toronto, 1991), 10

Bourbon relatives were seated and finally arrived in Vienna in 1785; however, the circumstances of his arrival are unknown.[45]

Martín received commissions for three *opera buffa* to be premiered at the Burgtheatre, the imperial opera house: *Il burbero di buon cuore* (1786), *Una cosa rara ossia Bellezza ed Onestà* (1786), and *L'arbore di Diana* (1787).[46] Librettist Lorenzo Da Ponte, known for his collaborations with Mozart on *Le nozze di Figaro* (1786), *Don Giovanni* (1787)*,* and *Cosí fan tutte* (1790)*,* wrote the text for all three of Martín's Viennese operas.[47] *Il burbero di buon cuore* ("The Good-hearted Curmudgeon") was adapted from Carlo Goldoni's French play *Le buorru bienfaisant* and premiered January 1786 with moderate success.[48] For their second opera, Da Ponte chose to adapt *La Luna de la Sierra* by Spanish playwright Luis Vélez de Guevara in honor of Martín's patron, Isabel Marquesa de Llano, wife of the Spanish ambassador to Vienna.[49] *Una cosa rara ossia Bellezza ed Onestà* ("A Rare Thing or Beauty and Honesty") premiered the following season on November 17, 1786 and became an immediate success despite a tumultuous staging process in which the emperor had to involve himself.[50] Da Ponte wrote of opening night:

> …the theatre was full, most of the audience being composed of enemies ready to hiss. However, right from the beginning of the performance they found such grace, sweetness, and melody in the music, and such novelty and interest in the words, that they seemed to be overcome by an ecstasy of pleasure. A silence, a degree of attention never before accorded to an Italian opera, was followed by a

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[45] Link, "The Da Ponte Operas of Vincente Martín y Soler," 10

[46] Link, "Martín y Soler."

[47] John Platoff, "A New History for Martín's *Una cosa rara*," *The Journal of Musicology* vol. 12, no. 1 (Winter 1994), 85.

[48] Platoff, 87.

[49] Ibid., 85.

[50] Ibid., 87.

> storm of applause and exclamations of delight and pleasure. Everyone understood the intrigues of the cabal, and with one accord clapped and praise.

Due to the arrival of Lent, the initial run of *Una cosa rara* ended after fifteen performances with "300 to 400…turned away" at each performance according to Johann Pezel.[51] Dexter Edge's analysis of the Burgtheatre's box-office receipts revealed that the opera was one of the most popular over the subsequent four seasons garnering 78 performances in all.[52] Martín's opera, which has since fallen out of the repertoire with little to no critical tradition, eclipsed the initial run of Mozart's *Le nozze di Figaro* which premiered the same season and received only nine performances, eight of which occurred prior to the premiere of *Una cosa rara*.[53] The opera's Spanish costumes and hairstyles, which were overseen by Isabel Marquesa de Llano, set the latest fashion craze, coined "à la Cosa rara" by adoring audiences, and the music became so recognizable that Mozart quoted it in the final scene of *Don Giovanni*.[54] The plot follows Lisargo, the town mayor, and prince Don Giovanni as they try to seduce the engaged peasant, Lilla, sung by Nancy Storace during the initial run. When Queen Isabella discovers their antics, she resolves the situation so that Lilla can marry her beloved, Lunibo.

As was customary with many popular operas in 1780s Vienna, music from *Una cosa rara* was arranged for *harmonie* ensemble (pairs of oboes, clarinets, bassoons, and horns) by Johann Nepomuk Wendt, oboist at the Burgtheatre and leader of Joseph II's *Kaiserlich-Königliche Harmonie*.[55] These small wind bands grew in popularity after the emperor established his personal *harmonie* in April 1782 with members of the imperial theatre's orchestra including oboists Geroge Triebensee and Wendt; brothers Anton and Johann Stadler on clarinet; hornists

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[51] Platoff, 88.
[52] Ibid.
[53] Ibid., 90.
[54] Link, "Martín y Soler."
[55] Vincente Martín y Soler, *Divertimento no. 4*, edited by Patricia Cornett (New York: Boosey & Hawkes, 2020), 3.

Jakob Eisen and Martin Rupp; and bassoonists Wenzel Kauzner and Ignaz Drobney.[56] In response to the imperial fashion, other Austrian and German aristocrats formed their own similar ensembles including the Prince of Lichtenstein and Count Kraft Ernst of Oettingen-Wallerstein who employed Antonio Rosetti as leader of his large harmonie which included flutes and four horns.

These ensembles performed various roles accompanying social and private events for the aristocracy as well as outdoor events.[57] A large portion of a *harmonie* ensemble's repertoire consisted of arrangements from opera and ballet excerpts typically written by members who played in theatre orchestras as was the case with Wendt and Triebensee.[58] The Viennese court libraries list over 100 such arrangements in their catalogs while the Esterházy court, which employed Franz Jospeh Haydn, cataloged more than twice as many arrangements as other works.[59] *Harmonie* ensembles persisted in popularity until the beginning of the 1800s when economic conditions suffered due to increasing military conflicts with France cause their demise.[60]

In 1788, Martín acquired a more lucrative position in Saint Petersburg, Russia where Domenico Cimarosa held the post of official court composer, but Martín enjoyed some success setting comic operas such as *Gore bogatyr Kosometovich* with a Russian libretto by Empress Catherine the Great.[61] He was appointed director of the Russian opera company for the next four years but left the country in 1794 for London where Da Ponte secured employment for the composer at the King's Theatre.[62] Together they created two additional works, *La scuola dei maritati* and *L'isola del piacere*, the first of which achieved considerable success, the latter with less praise. Martín returned to Russia after the 1795 season to serve the new emperor, Paul I, and remained there, teaching, and serving as administrator to the music academy until his death in 1806.[63]

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[56] Simon P. Keefe, *The Cambridge History of Eighteenth-Century Music* (Cambridge: Cambridge University Press, 2009), 673

[57] Mercedes Conde Pons, liner notes for "Martín y Soler: *Una cosa rara* Harmoniemusik" recorded by Moonwinds. translated by Charles Johnston (Arles, Austria: Harmonia Mundi S.A., 2008), 9.

[58] Keefe, 574.

[59] Whitwell, 42.

[60] Ibid., 49.

[61] Link, "Martín y Soler."

It was during Martín's sojourn to London in 1795 that he revisited the music of *Una cosa rara* and composed a set of six divertimenti based on themes from the opera; four of the divertimenti are for winds alone, and two utilize strings.[64] While his motivation to compose these divertimenti is unclear, the music of *Una cosa rara* was familiar to English audiences. That same year, Martín composed the *dramma giocosso* entitled *L'isola del piacere* ("The Island of Pleasure") which included a comic one-act intermezzo comprised of nine musical numbers, five of which were recycled music from *Una cosa rara*.[65] Stephen Storace, brother of Nancy, had also composed the comic opera *The Siege of Belgrade* in 1791 for English theaters and borrowed many numbers from *Una cosa rara*.[66] Until recently, only one of the divertimenti (no. 6) has been published while the other five have existed as manuscript parts housed in the British Library. University of Michigan conduting DMA graduate, Patricia Cornett has prepared modern editions of the wind divertimenti, including the *Divertimento no. 4*, heard on this recital.[67]

Martín's divertimenti are unique in that they combine material from *Una cosa rara* with newly composed material, however *Divertimento no. 4* draws exclusively from preexisting operatic material. The four-movement work is composed for pairs of oboes, basset horns (in lieu of B-flat soprano clarinets), horns, and bassoons and draws upon six opera numbers as outlined in Figure 2.17.

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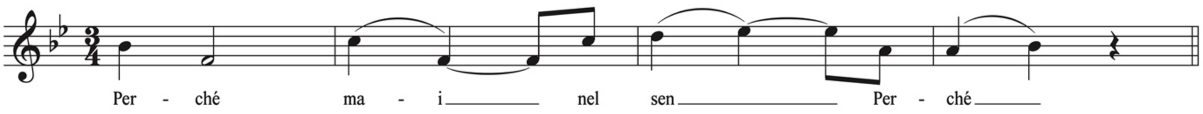
[62] Link, "Martín y Soler."
[63] Ibid.
[64] Martín y Soler, 3.
[65] Link, "The Da Ponte Operas of Vincente Martín y Soler," 221.
[66] Ibid., 10.
[67] Martín y Soler, 3.

Figure 2.17: Vincente Martín y Soler, *Divertimento no. 4*, Opera score references

Movement	Style Indicator	Original Opera Title	Operatic Form
Movement I	*Allegro* *Larghetto* *Allegro*	"Perché mai nel sen"	Terzetto
Movement II	*Andante poco mosso* *Allegro*	"Calma l'affanno" "Suoni pur di grati evviva"	Cavatina Chorus
Movement III	*Allegretto*	Sinfonia "Compatite o gran Regina"	Overture Sextet
Movement IV	*Allegretto*	"Viva, viva la Regina"	Chorus

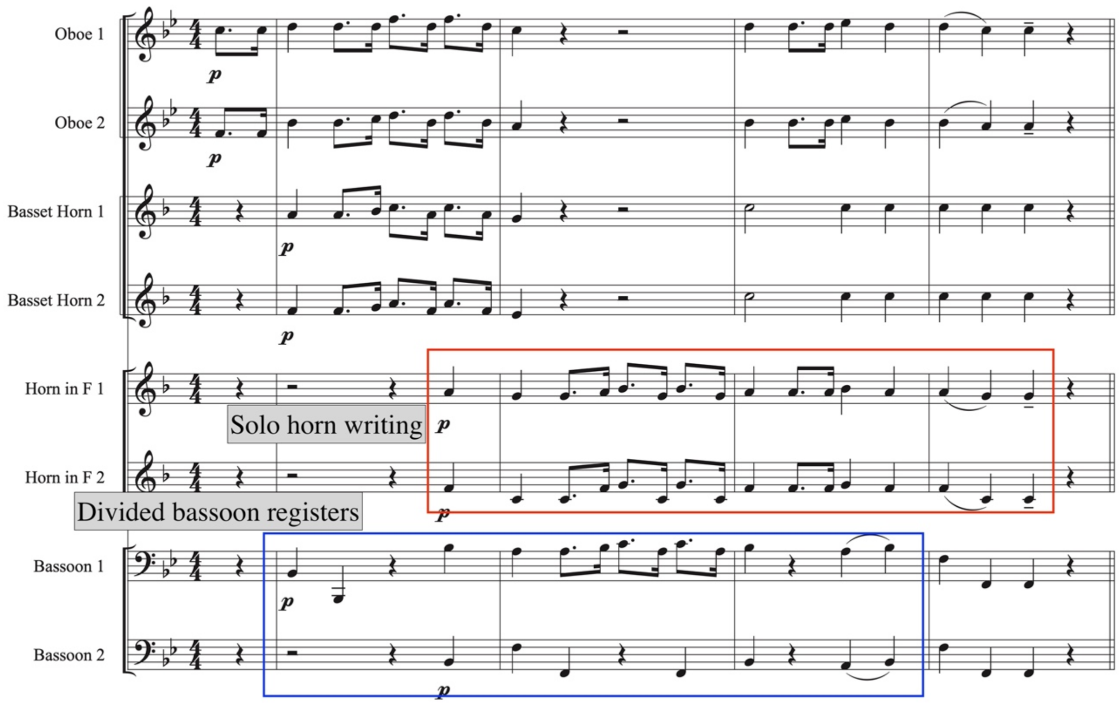
Movement I is an abbreviated setting of the trio "Perché mai nel sen" sung by Queen Isabella, Prince Don Giovanni, and the squire Corrado in Act I, Scene 3. The *Divertimento* retains the da capo form of the original terzetto with the outside A-sections set as an aristocratic minuet and a contrasting march-like B-section with dotted rhythms and relaxed *Larghetto* tempo. In the A-sections, solo bassoon, oboe, and basset horn assume the roles of the vocalists and share the vocal line outlined in Figure 2.18.

Figure 2.18: Vincente Martín y Soler, *Una cosa rara*, "Perché mai nel sen" vocal melody



The scoring of bassoons and horns reflects a more sophisticated role than earlier *harmonie* transcriptions. As indicated in Figure 2.19, bassoons are not strictly written in unison but rather *divisi*, outlined in blue, to create a more resonant foundation while horns, outlined in red, assume a soloistic role rather than merely reinforcing the harmonic outline.

Figure 2.19: Vincente Martín y Soler, *Divertimento no. 4*, movement I, mm. 28-31


Oboe 1
Oboe 2
Basset Horn 1
Basset Horn 2
Horn in F 1
Horn in F 2
Bassoon 1
Bassoon 2
p
Solo horn writing
Divided bassoon registers

The second movement of the *Divertimento* begins with a setting of the Queen's cavatina "Calma l'affanno" (*Divertimento* measures 1-35) before closing with an excerpt from the chorus "Suoni pur di grati evviva" (*Divertimento* measures 36-71). Solo oboe assumes the role of the operatic diva as was typically for *harmonie* arrangements; Figures 2.20 and 2.21 reveal the direct transposed transcription of the soprano line to the *Divertimento*.

Figure 2.20: Vincente Martín y Soler, *Una cosa rara*, "Calma l'affanno," Queen mm. 1-8

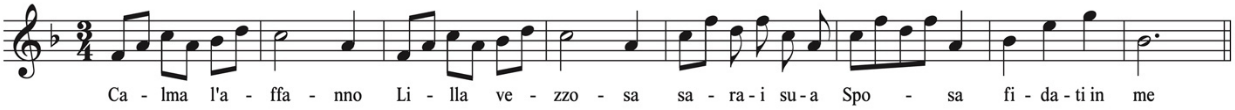
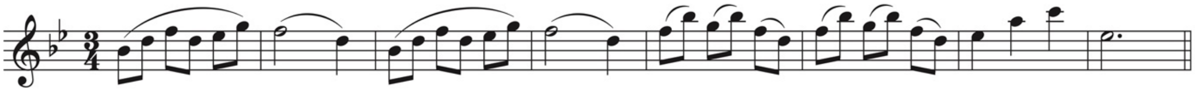

Ca - lma l'a - ffa - nno Li - lla ve - zzo - sa sa - ra - i su - a Spo - sa fi - da - ti in me

Figure 2.21: Vincente Martín y Soler, *Divertimento no. 4*, movement II, oboe mm. 1-8



In contrast to the *Andante pocco mosso* cavatina, the movement closes with a rollicking 6/8 dance containing two double-periods of the original music before closing with a celebratory fanfare.

Movement III, which also combines two original opera numbers, opens with an abridged version of the *Sinfonia* (*Divertimento* measures 1-108), the predecessor to the operatic overture, which follows a rondo formal structure (ABACA) and continues the brisk 6/8 dance style from the previous movement. The movement closes with the sextet "Compatite o gran Regina" (*Divertimento* measures 109-130) set in the style of the Austrian *ländler* folkdance. It was common practice for European composers of this era to employ popular dance styles to evoke an emotional or comedic response from the audience. The ländler was the most common folkdance in Austria during the eighteenth century and was typically danced by a single couple.[68] In this instance, Martín evokes humor by setting this peasant pair's dance for six aristocratic characters.

The *Divertimento* closes with an arrangement of the chorus "Viva, viva, la Regina" from Act II, Scene 14. The movement is also set in a rondo form which follows the same harmonic scheme as the Sinfonia (I-V-I-IV-I). The music takes the character of a rustic dance in 3/8 as shown in Figure 2.22 with homophonic rhythm, unison melody, and uncomplicated harmonic language.

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[68] Mosco Carner, "Ländler," in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.15945.

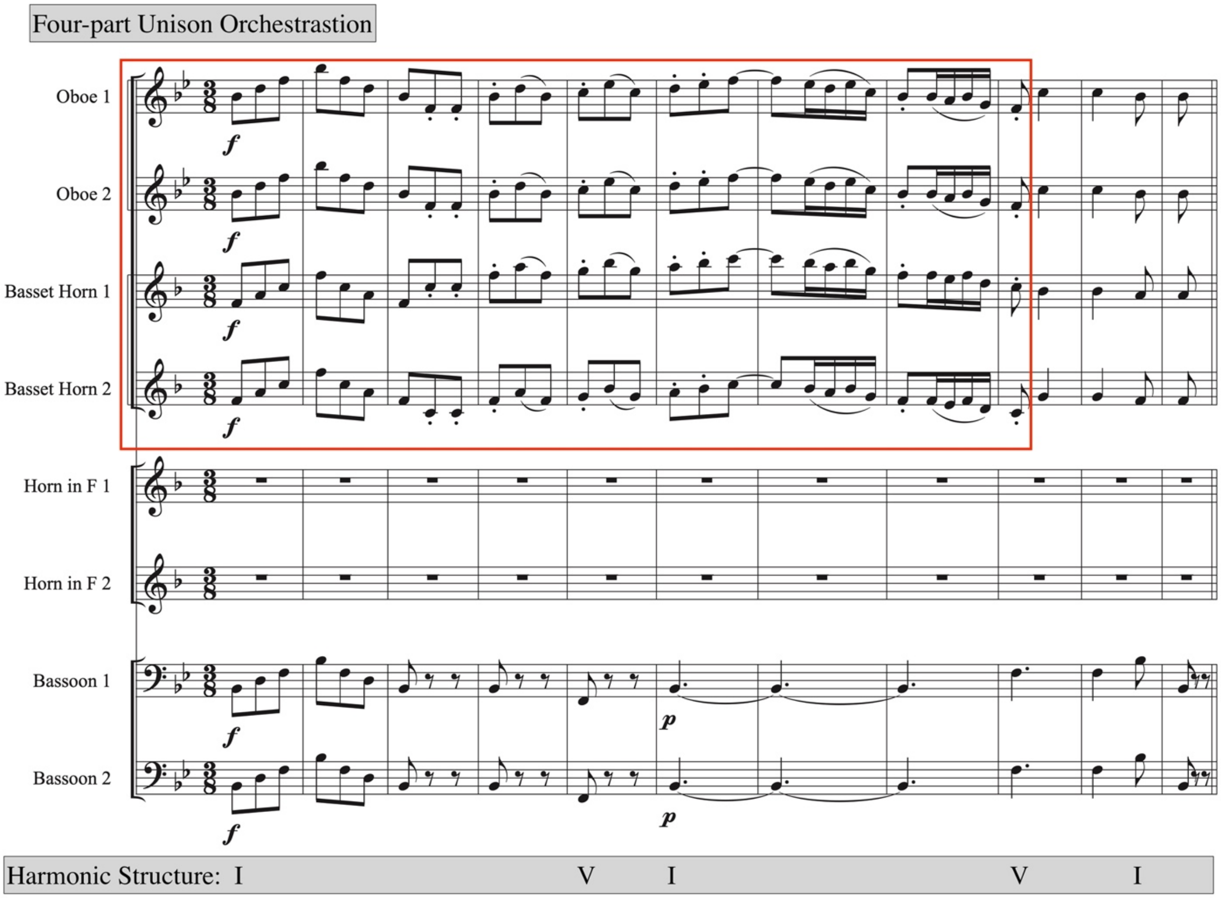
Figure 2.22: Vincente Martín y Soler, *Divertimento no. 4*, movement IV, mm. 1-11

Four-part Unison Orchestrastion
Oboe 1
Oboe 2
Basset Horn 1
Basset Horn 2
Horn in F 1
Horn in F 2
Bassoon 1
Bassoon 2
f
p
Harmonic Structure: I
V
I
V
I

Martín's divertimenti occupy a unique position within the eighteenth century *harmonie* repertoire as arrangements of popular operatic material presented in a condensed format. They display the composer's gift for lyrical melodic writing which initiated *Una cosa rara*'s immediate success.

Petite symphonie (1885) Charles Gounod
(1818-1893)

Charles Gounod was recognized by his French peers as representing the nationalist counterpoise to the Germanic post-Wagerian musical aesthetic,[69] however history has judged his sensibility as less significant than that of his contemporaries such as Claude Debussy, Jules Massenet, and Gabriel Fauré.[70] Gounod, born in Paris June 17, 1818, was one of the most prolific French composers of the nineteenth century and wrote lyric operas, sacred music, *mélodies*, symphonies, and chamber works.[71] Gounod's works represent his aspirations for fame which he hoped to gain first through sacred compositions and finally operatic endeavors. His attempts to shape the national aesthetic were scrutinized through the lens of socio-political conflicts and the French state's hegemonic goals.[72]

Gounod, who was raised in the artistic circles of Paris, was encouraged to study music by his mother Victoire Lemachois who supported her two sons by teaching piano lessons after the sudden death of their father, François-Louis.[73] After studying harmony and counterpoint with Antoine Reicha while in boarding school, Gounod enrolled at the Paris Conservatoire and studied composition with Henri Berton, Jean-François Le Sueur, and Ferdinando Paër.[74] He was awarded the *Prix de Rome* in 1839 for his cantata *Fernand* and moved to the Italian capital in 1840 where he discovered the sacred works of Giovanni Pierluigi da Palestrina which served as the foundation for his beliefs that truth and Christianity combined to create ideal aspects of beauty.[75] He spent the third and final year of the prize's stipend in Vienna where the

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[69] Steven Huebner, "Gounod, Charles-François," in *Grove Music Online*)Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.40694.

[70] Normal Demuth, *Introduction to the music of Gouno*d (London: Dennis Dobson, Ltd., 1950), 1.

[71] Huebner, "Gounod, Charles-François."

[72] Jane Fulcher, *The Nation's Image: French Grand Opera as politics and politicized art* (Cambridge: Cambridge University Press, 1987), 2.

[73] Huebner, "Gounod, Charles-François."

[74] Ibid.

[75] Ibid.

Philharmonic Society performed his recently composed *Mass* and *Requiem* which were both warmly received by Austrian audiences.[76]

He returned to Paris in 1843 where he assumed the role of *maître de chapelle* at the *Séminaire des Missions Etrangères* church and continued to compose with the hope of establishing the French center for sacred music.[77] After failing to garner the attention he desired, he reoriented his focus to music for the stage and later said of the change:

> The theatre is a place where every day you have the means and opportunity of communicating with the public. It is available to the musician as a permanent, daily shopwindow. Religious and symphonic music belong, of course, to a higher order, in the matter of absolutes, than does music for the theatre; but the opportunities and methods of making one's name in them are rare and only reach an occasional audience, instead of the regular one that does to the theatre. And then, what an infinite variety there is in the choice of subjects for a dramatic composer! What score for fantasy, imagination, history! The theatre tempted me. I was then nearly thirty years old, and I was impatient to try my strength in this new battlefield.[78]

Gounod premiered his first opera, *Sapho*, at le Palais Garnier ("*l'Opéra*") in 1851 which marked the first of many disappointments;[79] the press was unfavorable of the work, commenting that it harkened back to Gluck but did not look forward.[80] Of his twelve operas, however, *Faust* (1859), *Mireille* (1864), and *Roméo et Julliete* (1867) were notable successes and remain in the operatic repertoire.[81] Despite the fact that the *l'Opéra* had recently broken from state sponsorship, Jane Fulcher argues that its repertoire and public reception were shaped by political forces which "sought to embody public spirit and opinions."[82] This view may alter the verisimilitude of Gounod's operatic "failures."

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[76] James Harding, *Gounod* (New York: Stein and Day, 1973), 48.
[77] Huebner, "Gounod, Charles-François."
[78] Harding, 56.
[79] Demuth, 1.
[80] Harding, 69.

In July 1870, after the declaration of hostilities and the onset of the Franco-Prussian War, Gounod moved his family to the French countryside and eventually England the following September.[83] He returned to France in 1875 and continued his operatic efforts with the restaging of his popular works and the premiers of *Cinq mars* (1877) and *Polyeucte* (1878), neither of which were well-liked by the press.[84] In the 1880s, the composer returned to the religious fervor of his young adulthood and wrote two large oratorios: *La rédemtion* and *Mors et vita*. During the compositional process of these two ambitious works, Gounod's friend, Paul Taffanel, asked him to write a work for the newly formed *Société de musique de chambre pour instruments à vent* (Society of chamber music for wind instruments).[85] Although preoccupied with the impending 1885 premiere of *Mors et Vita*, Gounod completed *Petite symphonie* as a favor to Taffanel and the composition has endured in popularity over either of his immense oratories.[86]

Paul Taffanel was the founder of the modern French flute school and served principal conductor at *l'Opéra* and the *Société des Concerts du Conservatoire* during his career.[87] Frustrated with the status of wind instrumental music and performance, he founded the Society with the hopes of stimulating the composition of new chamber works for winds and raising the level of performance expectations to match the virtuosity of string musicians.[88] In 1897, he assembled a *Harmoniemusik* octet (pairs of oboes, clarinets, bassoons, and horns) in addition to two flutes and a piano for the Society's first performance on February 6, 1879 at the small recital room at *Salons Pleyel et Wolff*.[89] The first performance was so popular that the second and subsequent performances were moved to the larger *Salle Playel*, the most prestigious chamber music venue in Paris.[90] After the April 30, 1885 premiere of Gounod's *Petite symphonie*, which featured Taffanel as flute soloist, the work remained a staple of the Society's repertoire. It was immediately accepted by audiences and press alike; the pianist and critic Isidor Philipp wrote, "It contains the qualities of harmonic purity, instrumental elegance, and bewitching style," and another critic wrote that it was "overflowing with charm and humour and delightful instrumental color."[91]

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[81] Huebner, "Gounod, Charles-François."
[82] Fulcher, 6-7.
[83] Huebner, "Gounod, Charles-François."
[84] Ibid.
[85] Edward Blakeman, *Taffanel: Genius of the flute* (Oxford: Oxford University Press, 2005), 79.
[86] Ibid.
[87] Harding, 212.

Petite symphonie conforms to Classical era formal conventions, outlined in Figure 2.23, and follows the four-movement symphonic outline of a Sonata-Allegro opening movement with slow introduction, an expressive slow second movement, a third movement minuet and trio (here a scherzo and trio), and a closing quick Sonata-Allegro movement inspired by dance rhythms.

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[88] Blakeman, 68.
[89] Ibid., 69-70.
[90] Ibid., 70.
[91] Ibid., 79.

Figure 2.23: Charles Gounod, *Petite symphonie*, formal structures

Movement I “Adagio et Allegretto” – Type 3 Sonata

Formal Area	Sub-Area	Measures	Length	Key Area
Adagio				
Introduction	Introduction – N	1-15	15	B-flat
Allegretto				
Exposition	Primary Theme – *P*	16-27	12	B-flat
	Transition – *Tr*	28-35	8	Unstable
	Secondary Theme – *S*	36-43	8	F
	Expositional Close – *K*	44-50	7	
Development	(*P*)	51-54	4	Unstable
	(*S*)	55-69	15	A - G
	(*K*)	70-73	4	G
	False Recapitulation	74-85	12	C – D - F
Recapitulation	*S*	86-95	10	B-flat
	P	96-111	16	B-flat
	Codetta	112-122	11	B-flat

Movement II “Andante cantabile” – Type 1 Sonata

Formal Area	Sub-Area	Measures	Length	Key Area
Introduction	Introduction – *N*	1-7	7	E-flat
Exposition	Primary Theme – *P*	8-28	19	E-flat
Trimodular Block	Trimodular Block 1 – TMB_1	29-38	9	Unstable
	Trimodular Block 2 – TMB_2	39-51	13	B-flat - unstable
	Trimodular Block 3 – TMB_3/ Secondary Theme – *S*	52-63	12	B-flat
Recapitulation	*P*	64-80	17	E-flat
	S	81-89	9	E-flat

Movement III “Scherzo” – Scherzo & Trio

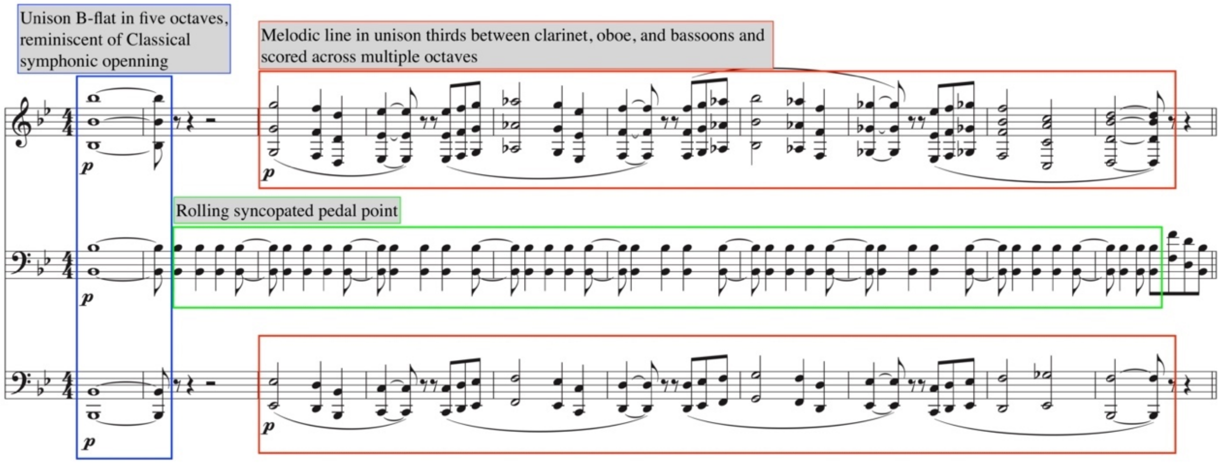
Formal Area	Sub-Area	Measures	Length	Key Area
Introduction	Introduction – *N*	1-12	12	c
Scherzo	*A*	13-40	28	B-flat
	B	41-68	28	g – B-flat
Trio	*C*	69-108	28	E-flat
Scherzo	*A*	13-40	28	B-flat
	B	41-68	28	g – B-flat

Movement IV “Finale” – Type 3 Sonata

Formal Area	Sub-Area	Measures	Length	Key Area
Introduction	Introduction – *N*	1-20	20	B-flat
Exposition	Primary Theme – *P*	21-52	32	B-flat
	Transition – *Tr*	53-89	47	Unstable
	Secondary Theme – *S*	90-117	28	F
	Expositional Close – *K*	118-126	9	F
Development	(*N*)	127-138	12	Unstable
	(*P*)/(*Tr*)	139-146	8	Unstable
	(*Tr*)	147-182	36	D-flat – e-flat – f – E-flat – B-flat
Recapitulation	*S*	183-198	16	B-flat
	Coda – (*P*)	199-133	35	B-flat

“Adagio et Allegretto” begins with a Haydn-esque slow introduction, shown in Figure 2.24, which is initiated by a tutti B-flat orchestrated over five octaves followed by a stepwise melody accompanied by a syncopated tonic pedal point in the horns.

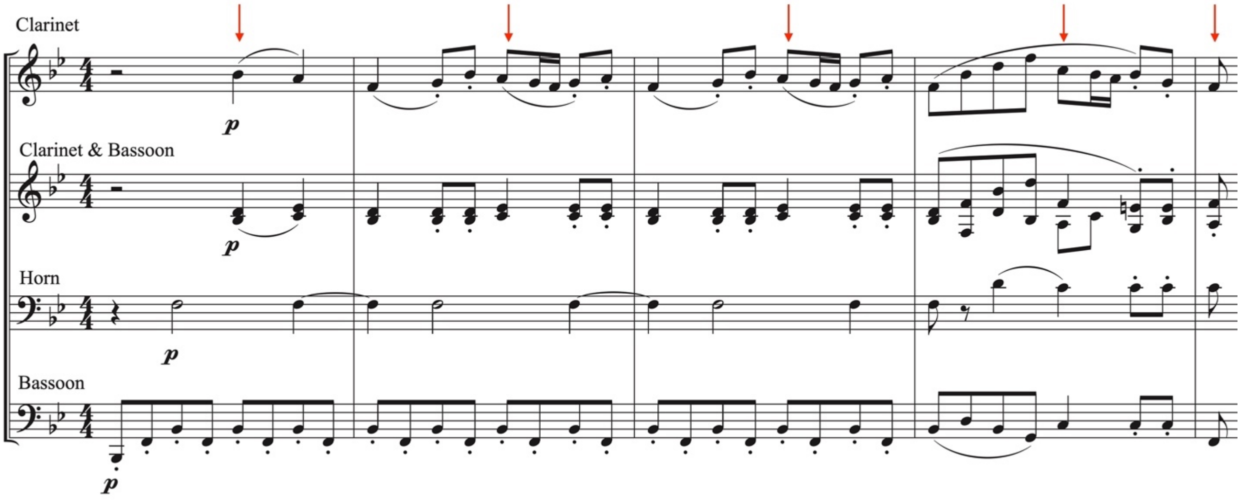
Figure 2.24: Charles Gounod, *Petite symphonie*, I. Adagio et Allegretto mm. 1-10 in C


Unison B-flat in five octaves, reminiscent of Classical symphonic openning
Melodic line in unison thirds between clarinet, oboe, and bassoons and scored across multiple octaves
Rolling syncopated pedal point
p
p
p
p
p

This introduction presents a few unifying compositional devices which bind the movements together. First, the introductory role of the horns will return at the start of each movement and, at times, signal new formal events. Second, the opening melody contains a sequence of the same melodic contour repeated three times before closing with a variation on the sequence; this device is central to melodic development throughout the work. Finally, the introduction is framed by the relationship between tonic (B-flat major) and subdominant (E-flat major) which first appears most obviously between the opening unison B-flat and E-flat major harmony in measure 3. This tonal relationship shapes the work as well as the melodic relationship of adjacent perfect intervals. A clear establishment of B-flat as tonic is not reached until the beginning of the exposition at measure 16 and is belied by an Imperfect Authentic Cadence (IAC) in E-flat minor in measure 8 and a Perfect Authentic Cadence (PAC) in E-flat major in measure 14.

The exposition begins at measure 16 and the Primary Theme (*P*) takes the form of a French gavotte, a dance which emphasizes the third beat of the bar rather than the first, as indicated by red arrows in Figure 2.25, and clearly established the B-flat tonal center with a PAC at measure 24.

Figure 2.25: Charles Gounod, *Petite symphonie*, I. Adagio et Allegretto mm. 16-21 in C



After a repetition of the gavotte period, a short transition led by bassoons begins at measure 28 and modulates to the expected dominant (F major) at measure 36 at the point of Medial Caesura (MC). The Secondary Theme (*S*) maintains the gavotte agogics but presents a contrasting legato rising arch melody. Essential Expositional Close (EEC) is reached at measure 44 with a PAC in F major which is followed by a brief closing phrase before the expositional repeat.

The Development begins with figuration based upon *P* which modulates to A major at measure 55 and reaches a PAC at measure 58 and begins sequences based upon *S*. A modulation to G major is achieved at measure 62 which is confirmed with a PAC at measure 70 and the restatement of the expositional close. A false recapitulation begins at measure 74 in C major which traverses through D major until reaching F major in measure 82 which initiates the return to B-flat major and the surprising return of *S* in measure 86. Gounod cleverly synthesizes an arch form with what Hepokoski and Darcy would label as a Type 3 Sonata by delaying the return of *P* until measure 96. Essential Compositional Closure (ECC) is reached in measure 112 which is followed by brief codetta based on an augmentation of the gavotte melody. The movement ends similarly to its beginning with three tutti tonic chords, a figuration which ends the first, second, and fourth movements.

The second movement, "Andante cantabile," reflects Gounod's operatic style. A comparison of Figure 2.26, an aria excerpt from *Roméo et Juliette*, and Figure 2.27, from *Petite symphonie*, shows the similarities in harmonic language, accompanimental texture, and lyrical melodic writing.

Figure 2.26: Charles Gounod, *Roméo et Juliette*, "Ah! Lève-toi," Roméo

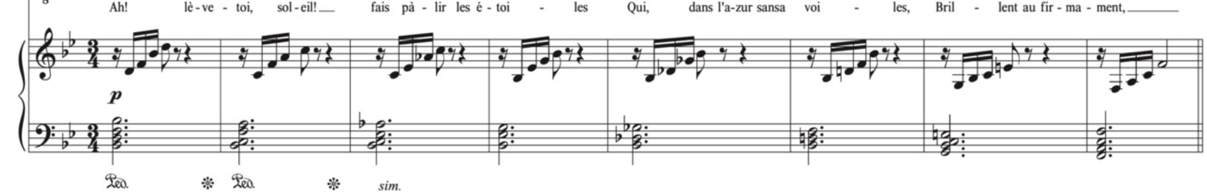
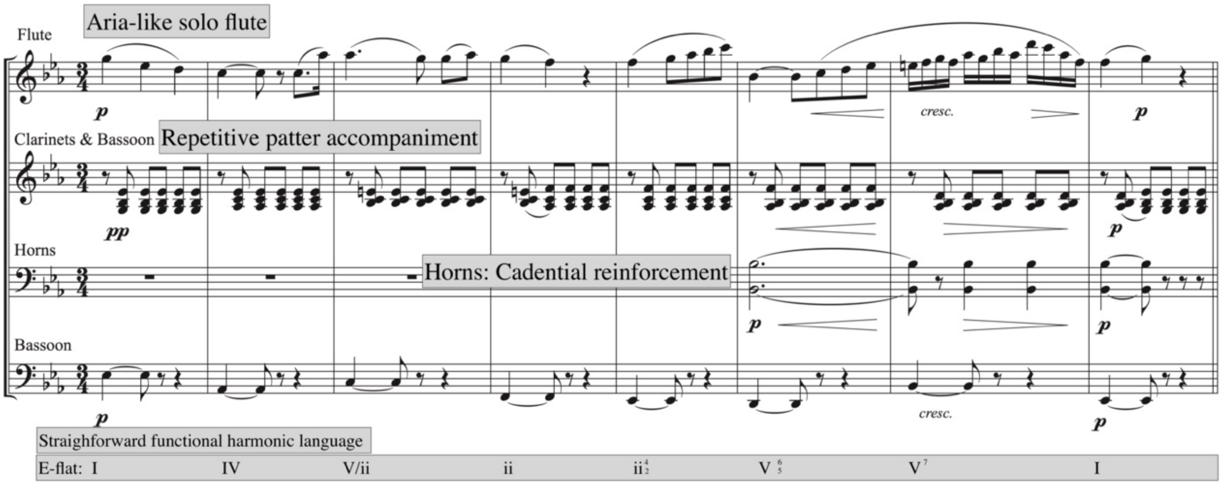

Tenor
Ah! lè-ve - toi, sol-eil! fais pà - lir les é - toi - les Qui, dans l'a-zur sansa voi - les, Bril - lent au fir - ma - ment,
p
Ped. ❉ Ped. ❉ sim.

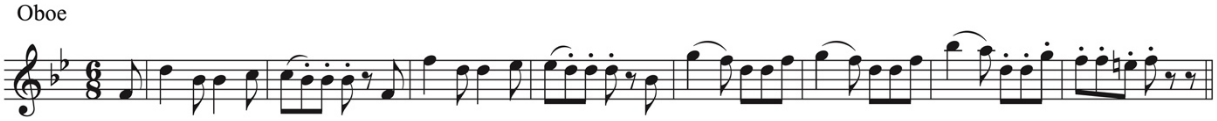
Figure 2.27: Charles Gounod, *Petite symphonie*, II. Andante cantabile mm. 16-21 in C


Aria-like solo flute
Flute
Clarinets & Bassoon
Repetitive patter accompaniment
Horns
Horns: Cadential reinforcement
Bassoon
p
pp
cresc.
Straighforward functional harmonic language
E-flat: I
IV
V/ii
ii
ii 4 2
V 6 5
V7
I

This movement is structured as a Type 1 Sonata and was written to feature Taffanel's artistry with an extended flute solo. A brief introduction, initiated by the horns, seems to begin in B-flat major but moves towards E-flat major reaching a PAC in measure 7, the opposite scheme of the first movement. The flute's aria-like solo ranges the entirety of *P* until a transition begins at measure 29 which takes the form of a tridmodular block. The first transitional unit (TMB_1) ends at measure 39 with a modulation to the anticipated dominant (B-flat major) and a MC followed by new thematic material (TMB_2) which quickly assuages B-flat major. A PAC in the dominant and a second MC are reached at measure 53 which marks the arrival of *S* (TMB_3), a rather short-lived theme of only four measures in length. A retransition, beginning at measure 56, introduces the recapitulation, measure 64. *P* once again features solo flute with more active accompaniment and segues directly into *S* without the two transitional units, affirming the trimodular block. A PAC in the tonic marks EEC at measure 85.

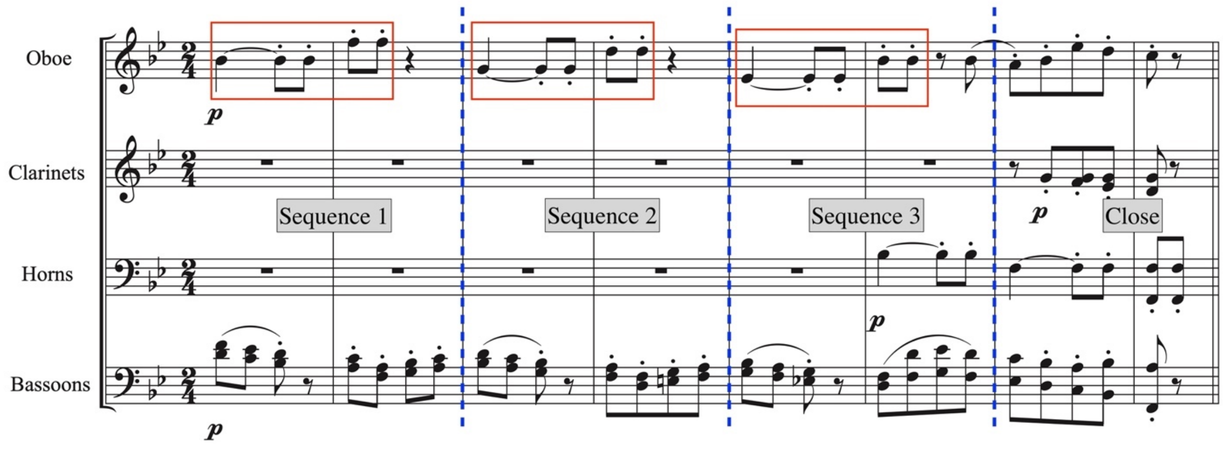
The third movement, "Scherzo," follows the formal conventions of a symphonic minuet and trio and maintains balanced proportions as shown in the formal chart in Figure 2.23. Gounod set his scherzo in 6/8 rather than the typical 3/4 but maintains the aristocratic dance character, shown in Figure 2.28. A horn call begins the short introduction set in C minor, another illusion to E-flat major, but quickly establishes B-flat major as tonic at measure 13. The square phrasing adheres to sequences of three as noted above. Whereas the previous movements included formal innovations, the scherzo's architectural predictability and clarity provides a charming sonic respite. The second strain *B* is set in the relative G minor, and the trio is score in the expected dominant of E-flat major.

Figure 2.28: Charles Gounod, *Petite symphonie*, III. Scherzo mm. 13-20, oboe 1



The work closes with an *Allegretto* "Finale" which returns to the formal ingenuity of the first two movements and exploits the perfect interval relationship through melodic figuration. Following suit, the movement opens with a brief introduction, however tonal ambiguity is absent and B-flat major is established from the start. The opening motive of an ascending perfect fifth serves as the basic motive for the movement as shown in Figure 2.29 which also outlines the continued use of sequences of three.

Figure 2.29: Charles Gounod, *Petite symphonie*, IV. Finale, mm. 21-28 in C



The exposition begins at measure 21, and the first three periods of *P* avoid a cadence in the tonic prolonging a PAC in the tonic until measure 52. The following transition comprises four periods which total more music that *P* and *S* combined. A MC marking the end of the extended transition arrives at measure 89 followed by *S* in the anticipated dominant (F major). The theme further develops the ascending fifth motive until reaching EEC with a PAC in the local tonic at measure 117. The development opens with a harmonic variation on *N* and travels through a series of minor tonalities. The remainder of this formal section returns to the extended expositional transition as if its purpose was to foreshadow the development all along. As in the first movement, the recapitulation begins with *S* rather than the expected *P*. At the point of ECC a coda begins which draws upon *P* without a true restatement thereby illuding to the arch form of Movement I without the cliché of direct formal repetition. Gounod's *Petite symphonie*, although written in haste due to other compositional obligations, incorporates his French traditionalist sensibilities and deft craftsmanship. The work combines late-Classical era formal conventions and Taffanel's hope to enhance the chamber wind repertoire.

Masquerade for Band, op. 102 (1965) Vincent Persichetti (1915-1987)

Throughout his life, Vincent Persichetti eagerly composed, taught, and performed as a pianist and lamented the lack of time within the day to accomplish everything he wished to do.[92] As an educator, he taught composition and theory at the Philadelphia Conservatory of Music (1939-1962) as well as the Julliard School (1947-1987) with a sixteen-year overlap.[93] He and his wife Dorothea lived their entire adult lives in Philadelphia, and the composer drove to New York City to teach until his retirement, multitasking during the commutes.[94] As a composer, he wrote over 150 works spanning many genres including his 12 piano sonatas, numerous works for organ and harpsichord, orchestra, chorus, and wind band.[95] His works are known for their fluent integration of the diverse materials and techniques which appeared throughout the twentieth century.[96]

Persichetti was born June 6, 1915 to first generation American immigrants; his father Vincenzo was from the Abruzzi region of Italy, and his mother Martha Buch immigrated from Berlin, Germany. His avidity for music was fostered within the large Italian-American community of South Philadelphia where he was raised.[97] The Persichetti family lived six houses from Gilbert Combs, president and founder of the Combs Conservatory, whom Vincent pestered for piano lessons until he was admitted to the Conservatory at age five.[98] At age six, he performed his first public concert which was broadcast on the radio, and at nine he audited a theory course at the Conservatory with Russell King Miller whom Persichetti considered his most influential teacher.[99]

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[92] Andrea Olmstead, *Vincent Persichetti: Grazioso, Grit, and Gold* (Lanham: Rowman & Littlefield, 2018), xix.
[93] Ibid.
[94] Walter Simmons, *The Music of William Schuman, Vincent Persichetti, and Peter Mennin: Voices of Stone and Steel* (Lanham, Md.: Scarecrow Press, 2011), 183.
[95] Ibid., 197.
[96] Ibid., 194.
[97] Ibid., 174.
[98] Olmstead, 9.

His proximity to the musical centers of Philadelphia offered his voracious musical appetite unfettered exposure to music of all backgrounds. In his youth, he borrowed orchestral scores from Philadelphia's Logan Square Library to study before attending orchestral rehearsals, "checking what [his] inner ear imagined against what [he] heard with [his] outer ears at the performance."[100] In his teens, he served as the organist at the Arch Street Presbyterian Church where he would improvise on the scores which he had memorized.[101] After graduating from Combs Conservatory in 1936, he accepted an invitation to head the Conservatory's Department of Theory and Composition while simultaneously pursuing masters programs in piano performance and composition at the Philadelphia Conservatory in addition to studying conducing with Fritz Reiner at the Curtis Institute.[102] When Persichetti auditioned for Reiner he said, "I was able to read and identify every score selected from four three-foot piles at the piano and was excused from every theory course at school even though I 'improved' one of the melodies he gave me to harmonize."[103]

Composer William Schuman became president of the Juilliard School in 1945 and initiated a systematic restructuring of the school's curriculum. Through a recommendation, he approached Persichetti to serve on the faculty and organize the Literature and Materials curriculum.[104] In the 40 years that Persichetti served on Juilliard's faculty his guiding principle in teaching and compositing was that "the twentieth century has enriched the language of music with a veritable explosion of new sounds and new techniques" and "the composer is to master all of these materials and approaches and integrate them into a fluent musical language – a common practice, comparable to the traditional common practice of the eighteenth and nineteenth centuries."[105]

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[99] Simmons, 175.

[100] Vincent Persichetti and Rudy Shackelford, "Conversation with Vincent Persichetti," *Perspectives of New Music* 20, no. 1/2 (1981), 108, https://doi.org/10.2307/942408.

[101] Simmons, 175

[102] Olmstead.

[103] Persichetti and Shackelford, 109.

[104] Simmons, 178.

One notable impact of Persichetti's career was his contribution to the wind band repertoire during the mid-twentieth century which is seen as one of the catalysts for transforming the concert band into a serious artistic medium.[106] He believed that "when composers think of the band as a huge, supple ensemble of winds and percussion…creative ideas will flourish."[107] In 1950, Edwin Franko Goldman premiered Persichetti's first work for concert band, *Divertimento for Band*, with the popular, professional Goldman Band. The timing of the premiere was fortuitous; in 1952, Frederick Fennell established the Eastman Symphonic Wind Ensemble and recorded "American Concert Band Masterpieces" with Mercury Records and included *Divertimento* which gained Persichetti overnight success. In the following years, Persichetti would compose more works for band including *Psalm for Band* (1953), *Pageant* (1953) *Symphony no. 6* (1956), *Bagatelles for Band* (1961), two *Chorale Preludes* (1963), and *Masquerade for Band* (1965).

Masquerade for Band, op. 102 was the product of a 1965 commission from the Baldwin-Wallace College, now Baldwin-College University, Conservatory of Music in Berea, Ohio.[108] According to correspondence records, Persichetti had an established relationship with the Conservatory chair, Cecil W. Munk, years prior to the commission. In a March 1962 letter from

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[105] Simmons, 178.

[106] Donald Morris, *Persichetti Rediscovered: The Manuscripts of Vincent Persichetti's Band Works (Part One:* Pageant *and the* Symphony for Band *Symphony no. 6)*, Journal of Band Research volume 28 number 1 (Fall 1992), 21.

[107] Vincent Persichetti and Rudy Shackelford., "Conversation with Vincent Persichetti," *Perspectives of New Music* 20, no. 1/2 (1981): 104–33, https://doi.org/10.2307/942408, 120.

[108] Michael Hart, "An Analysis of and Conductor's Guide to Vincent Persichetti's *Masquerade for Band*, Op. 102," (Ph.D., diss., The University of Iowa Graduate College, 2014), 12.

Munk to Persichetti, Baldwin-Wallace College invited the composer to serve as the guest lecturer for their Contemporary Music Festival the following calendar year.[109] After subsequent correspondences, Persichetti agreed and visited Berea, Ohio in 1963 as the distinguished guest of the festival. During the residency, Persichetti lectured on theory and composition, providing lessons to composition students,[110] and enjoyed performances of his *Symphony no. 4*, op. 51; *Piano Quintet*, op. 66; *Pastoral for Woodwind Ensemble*, op. 21; and an unidentified choral work.[111] Persichetti's residency was well-received by faculty and students[112], and in 1964 Munk invited Persichetti to return for a summer session on contemporary music, however his schedule did not allow.[113]

A few months later in January 1965, Persichetti received another correspondence from Cecil Munk offering an open-ended commission[114] which offered "band, orchestra, [or] chamber groups from which you may choose the medium for your work."[115] The chair also mentioned a faculty string quartet, but went on to clarify that "this does not in any way indicate that this is the group for which you will be commissioned, because as I said before, this should be to you to make a choice."[116] The lower margins of the letter include "Orchestra Piece," "Clar & Piano," and "Yes, Feb 66" written in Persichetti's hand,[117] however in May 1965, Persichetti indicated to Munk that he intended to write a new work for concert band.[118] The score and parts for *Masquerade for Band* for which the Conservatory paid a mere $1300 were received by Bald-

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[110] Cecil W. Munk, letter to Vincent Persichetti, October 17, 1962, New York Public Library's Special Collections.
[111] Ibid.
[112] Cecil W. Munk, letter to Vincent Persichetti, January 28, 1963, New York Public Library's Special Collections.
[113] Cecil W. Munk, letter to Vincent Persichetti, March 31, 1964, New York Public Library's Special Collections.
[114] Cecil W. Munk, letter to Vincent Persichetti, January 25, 1965, New York Public Library's Special Collections.
[115] Ibid.
[116] Ibid.
[117] Ibid.
[118] Cecil W. Munk, letter to Vincent Persichetti, May 11, 1965, New York Public Library's Special Collections.

Wallace College November 1965.[119] The composer attended the premiere of the work which was performed by the Baldwin-Wallace College Symphonic Band under the direction of Dr. Kenneth Snapp on January 23, 1966.[120]

The relationship between Persichetti and the Baldwin-Wallace Conservatory of Music continued past the commission of *Masquerade*. Before the January 1966 premiere, Fred E. Harris, Dean of the Conservatory, wrote to Persichetti on December 21, 1965 to solicit Persichetti as a candidate for the Director of the Conservatory of Music after Cecil Munk's forthcoming retirement.[121] Persichetti respectfully declined the offer but called the Conservatory "one of the important schools in the country" and said that he was "extremely impressed with the quality of musicianship during [his] last visit."[122] The school, however, did secure Persichetti as a guest composition lecturer during the following academic year.[123] The relationship with Baldwin-Wallace also lead to the commission of Persichetti's *Symphony no. 8*, op. 106 for the Conservatory's orchestra.[124]

Masquerade for Band is the composer's only wind work set in a theme and variations formal structure.[125] Its introduction and theme are followed by ten variations and a coda which draw upon compositional exercises written by Persichetti for his 1961 textbook *Twentieth Century Harmony: Creative Aspects and Practice*.[126] Of the creation of *Masquerade*, he said the following:

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[119] Cecil W. Munk, letter to Vincent Persichetti, November 18, 1965, New York Public Library's Special Collections.
[120] Kenneth Snapp, "Academic and Cultural Events Series: Baldwin-Wallace College Symphonic Band Concert," program notes, January 23, 1966, Baldwin-Wallace College: Beria, Ohio.
[121] Fred E. Harris, letter to Vincent Persichetti, December 21, 1965, New York Public Library's Special Collections.
[122] Vincent Persichetti, letter to Fred E. Harris, January 13, 1966, New York Public Library's Special Collections.
[123] Cecil W. Munk, letter to Vincent Persichetti, March 10, 1966, New York Public Library's Special Collections.
[124] Cecil W. Munk, letter to Vincent Persichetti, July 20, 1966, New York Public Library's Special Collections.
[125] Olmstead, 267.
[126] Persichetti and Shackelford, 128.

> Musical excepts form the literature weren't reprinted in the book, so that the student would be forced to study the examples in context. I composed phrases of music to illustrate specific points, and years later these fragments began haunting me. I realized that certain examples had a thematic kernel in common…these examples from the harmony book evolved into a set of variations for fifty wind and percussion instruments. The work is a masquerade of my book.[127]

Variations II, VIII, and X develop material introduced in the theme while the remaining seven variations (i.e., I, III, IV, V, VI, VII, and IX) borrow pedagogical exercises from *Twentieth Century Harmony*.[128] Figure 2.30 lists the musical example from the textbook, its location in the score, along with Persichetti's notes found in either his planning document or his published score with conductor's markings.[129] [130]

Figure 2.30: Source material for *Masquerade for Band*, op. 102 by Vincent Persichetti

Excerpt from *Twentieth Century Harmony*	Location in *Masquerade for Band*, op. 102	Persichetti's notes
Ex. 2-16	Variation I (m. 25-28)	"polymodality – two different notes on the same tonal center"
Ex. 2-17	Variation III (m. 117-129)	
Ex. 2-11	Variation III (m. 163-166)	"modal writing with chromatic alterations"
Ex. 2-35	Variation IV (m. 191-196)	"pentatonic with foreign chords"
Ex. 9-8	Variation V (m. 202-208)	"a succession of three chords may be used for passages where forward harmonic motion is not desired (folk roots)"
Ex. 10-1	Variation V (m. 212-213)	
Ex. 7-20	Variation VI (m. 223-232)	"polyharmony"
Ex. 2-34	Variation VI (m. 235-248)	"modal pentatonic"

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[127] Persichetti and Shackelford, 128.

[128] Hart, 29.

[129] Vincent Persichetti, planning document: *Twentieth Century Harmony* excerpts, *Masquerade for Band*, op. 102, 1965. New York: Special Collections, New York Public Library for the Performing Arts.

[130] Vincent Persichetti, *Masquerade for Band*. composer's published score with markings. Bryn Mawr, PA: Elkan-Vogel, Inc., 1966. New York: Special Collections, New York Public Library for the Performing Arts.

Ex. 2-49	Variation VII (m. 257-269)	"whole tone→ major→"
Ex. 11-33	Variation IX (m. 352-356)	"double pedal point"
Ex. 11-30	Variation IX (m. 358-360)	"Unison uniting with antiphonal answers"

There is evidence in the short score autograph manuscript which suggests that the formal development of the variations was a flexible process. Originally, Persichetti segmented the work into twelve variations. There are five "Interludes" written in blue pencil and crossed out which are located at measures 93, 160, 189, 222, and 302. "Variation VII" is stricken through at measure 235, and the subsequent number of variations is readjusted. Other notational inconsistencies between the manuscript score and the published score are listed in Figure 2.31.

Figure 2.31: Notational inconsistencies between the manuscript and published score of *Masquerade for Band*, op. 102 by Vincent Persichetti

Measure Number	Notation in Manuscript Score	Notation in Published Score
51	Flute marked *fff*	Flute marked *ff*
68	Xylophone marked *fff*	Xylophone marked *ff*
102	"marc." Absent in Alto Sax	Alto Sax marked "marc."
146-155	No dynamics in percussion	Dynamics present in percussion
170	Quarter=96 (92 covered)	Quarter=96
198	No dynamic change	Beat 2: Subito Piano

Additional expressive information, outlined in Figure 2.32, can be drawn from Persichetti's personal published score held by the New York Public Library Special Collections'.

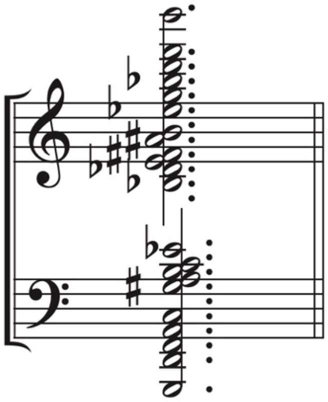
Figure 2.32: Vincent Persichetti's personal markings in published score of *Masquerade for Band*, op. 102

Location	Marking
Page 2	Next to "Ratchet" VP: "Large & Noisy"
Measure 19	"Sharp tone (tight)"
Measure 22	Breath release marked at end of measure
Measure 25	"gently"
Measure 37	"ahead→"

Measure 83	“not full stacc.”
Measure 116	“very stacc” “very fast”
Measure 131	“(maybe get into 2)”
Measure 160	“in 2”
Measure 187	“→ to march”
Measure 189	“March”
Measure 215	“driving WW (tight)”
Measure 235	“in six (not 2)”
Var VIII	Asymmetrical phrases marked

Persichetti aimed to create thematic fluidity and said that “variations with red lights and green lights are silly to me.”[131] Each variation is linked through unifying rhythmic and harmonic elements or inserted cadenzas such as the euphonium solo linking Variations V and VI in measures 221-222 and the extended oboe solo linking Variations III and IV in measures 167-169. The work begins with a short six-measure introduction in which the music opens on a unison *piano* C4 and expands through octatonic scales to the twelve-tone cluster chord outlined in Figure 2.33. Persichetti scored this sonority to oppose the overtone series and elicit, as he put it, a “cruddy” sound.[132]

Figure 2.33: Vincent Persichetti, *Masquerade for Band*, m. 4



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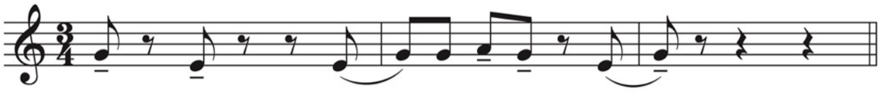
[131] Olmstead, 269.
[132] Ibid., 268.

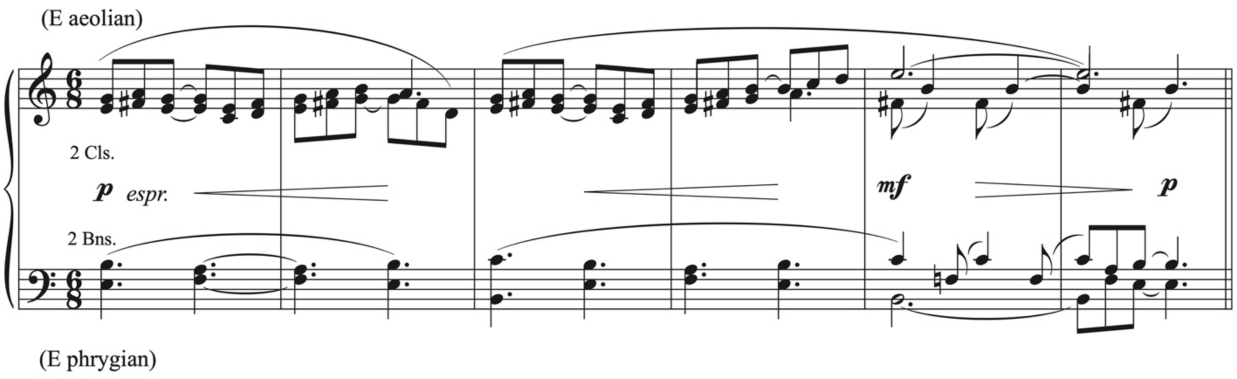
The chord slowly dissipates, and solo cornet states the theme, an alternating minor third, in measures 7-9, shown in Figure 2.34. Michael Hart's dissertation on *Masquerade* argues that this intervallic relationship is the unifying "kernel" to which Persichetti illuded in his 1981 interview with Rudy Shackelford.[133]

Figure 2.34: Vincent Persichetti, *Masquerade for Band*, thematic kernel, trumpet mm. 7-9



Variation I develops Exercise 2-16 from *Twentieth Century Harmony*, shown in Figure 2.35, and the first four measures are stated verbatim in *Masquerade* measures 25-28. The textbook excerpt demonstrates polymodality which "involves two or more different modes on the same or different tonal centers."[134] The variation is scored primarily for woodwinds and adorned with *leggiero* solo muted cornet and tuba.

Figure 2.35: Vincent Persichetti, *Twentieth Century Harmony*, Exercise 2-16



Variation II develops thematic material through a series of episodes and highlights Persichetti's unique orchestrational color which alternates through blocks of instrument families. Stopped horns in measures 50-53, shown in Figure 2.36, recall the oscillating minor third of the cornet theme which is immediately followed by further development by the entire clarinet family as shown in Figure 2.37.

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[133] Hart, iv.

[134] Vincent Persichetti, *Twentieth-Century Harmony* (New York: W. W. Norton & Company, 1961), 38.

Figure 2.36: Vincent Persichetti, *Masquerade for Band*, mm. 50-53

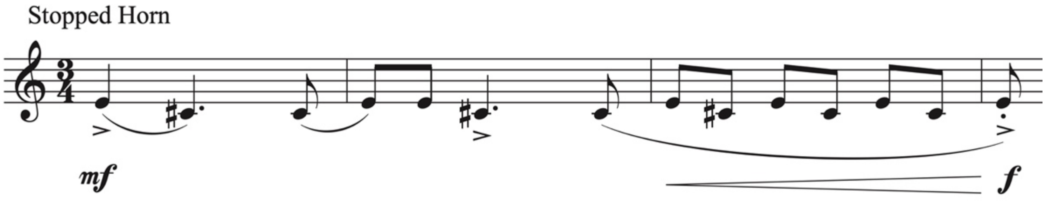
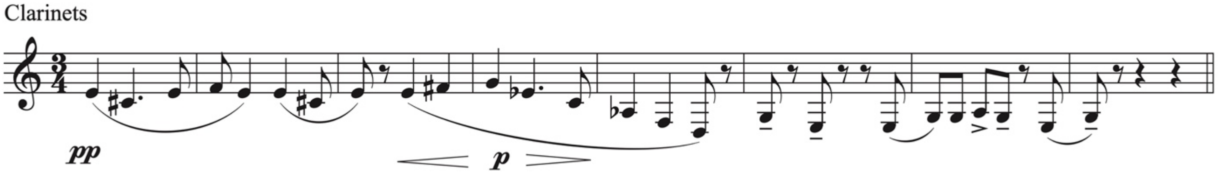
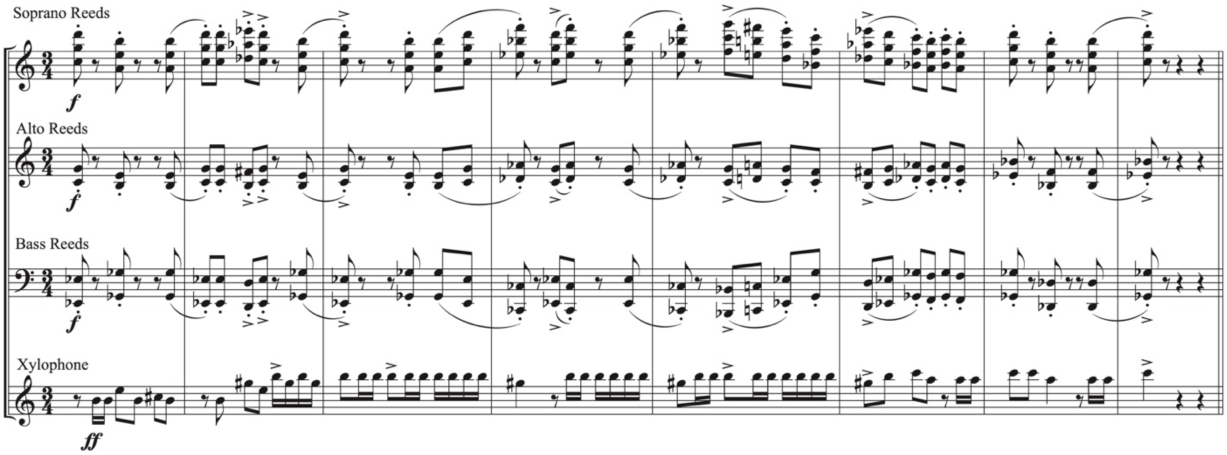

Stopped Horn
mf
f

Figure 2.37: Vincent Persichetti, *Masquerade for Band*, mm. 53-60


Clarinets
pp
p

Bridged by a timpani solo in measures 60-67, also based upon the minor third relationship, the woodwind family continue the thematic development in homophonic rhythm paired with dense harmony as outlined in Figure 2.38.

Figure 2.38: Vincent Persichetti, *Masquerade for Band*, mm. 68-75


Soprano Reeds
f
Alto Reeds
f
Bass Reeds
f
Xylophone
ff

The third variation draws material from two textbook excerpts from the chapter on modes. The variation opens with a setting of Exercise 2-17, Figure 2.39, which demonstrates polytonal and modal writing and closes with 2-11, Figure 2.40, which displays altered pitches within modal writing. The music quickly changes between sparse and tutti orchestration set in polytonal centers with altered modalities as well as octatonic passages.

Figure 2.39: Vincent Persichetti, *Twentieth Century Harmony*, Exercise 2-17

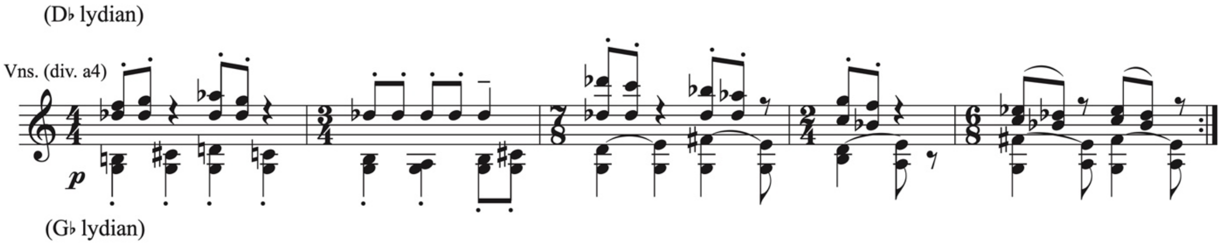
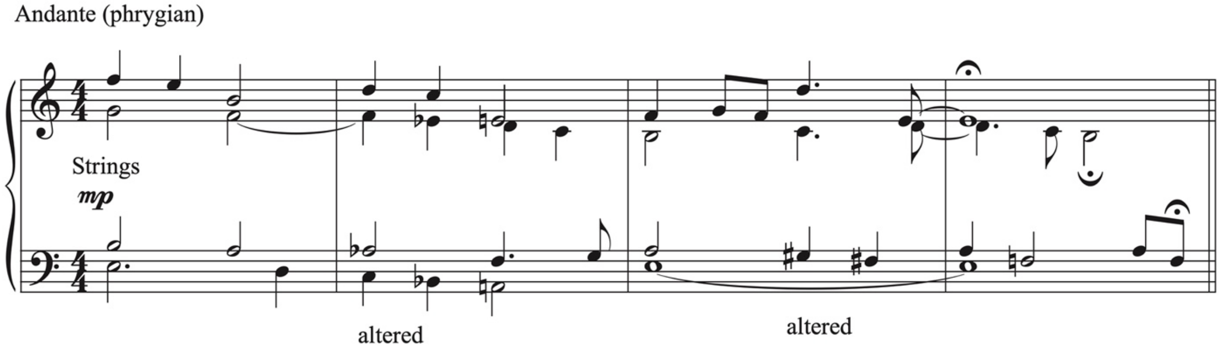
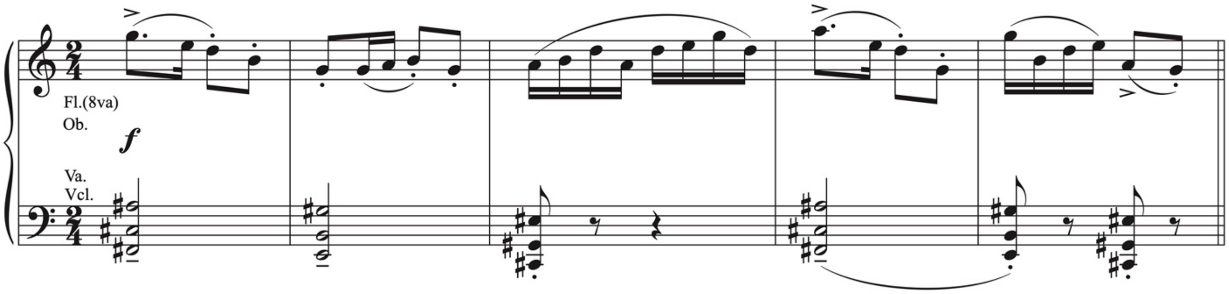


Figure 2.40: Vincent Persichetti, *Twentieth Century Harmony*, Exercise 2-11



Variation IV is bifurcated between an *Andantino* opening section marked *con grazia* and a march-like *più mosso* section based upon Exercise 2-35, Figure 2.41, which Persichetti wrote to illustrate how pentatonic melodies are often harmonized with foreign chords. Both segments of the variation share a syncopated rhythmic vitality akin to contemporary jazz.

Figure 2.41: Vincent Persichetti, *Twentieth Century Harmony*, Exercise 2-35



Persichetti's rhythmic development of Exercise 2-35 continues into Variation V, thereby linking the variations. A comparison of Figure 2.41 to Exercise 9-8, Figure 2.42, shows identical rhythms in the opening measures and a similar intervallic contour which Persichetti uses as an additional link. Variation V employs both Exercise 9-8, demonstrating "harmonic motion without definite tonality nor forward harmonic motion" accompanying folk music,[135] as well as Exercise 10-1, Figure 2.43, which Persichetti wrote to explain the relationship between harmonic rhythm and tempo.[136]

Figure 2.42: Vincent Persichetti, *Twentieth Century Harmony*, Exercise 9-8

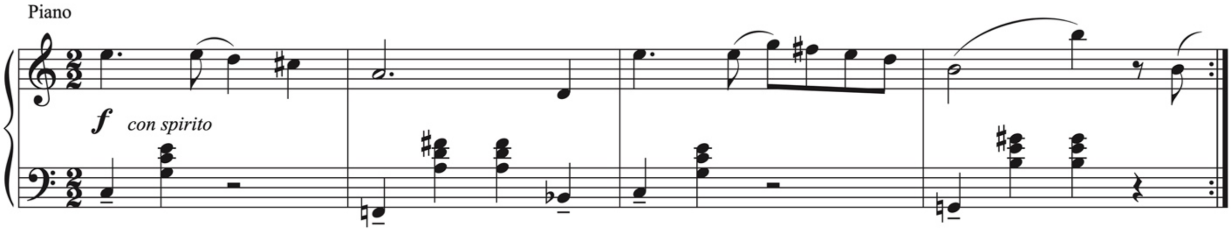
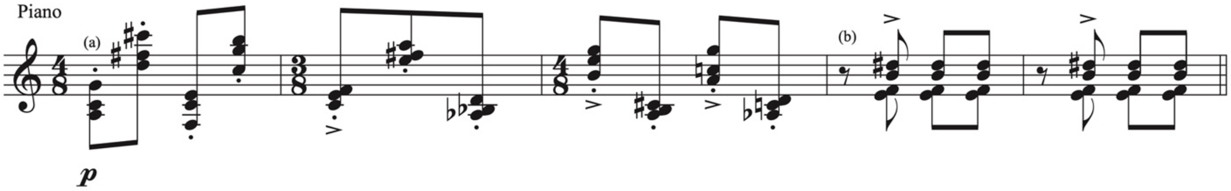


Figure 2.43: Vincent Persichetti, *Twentieth Century Harmony*, Exercise 10-1



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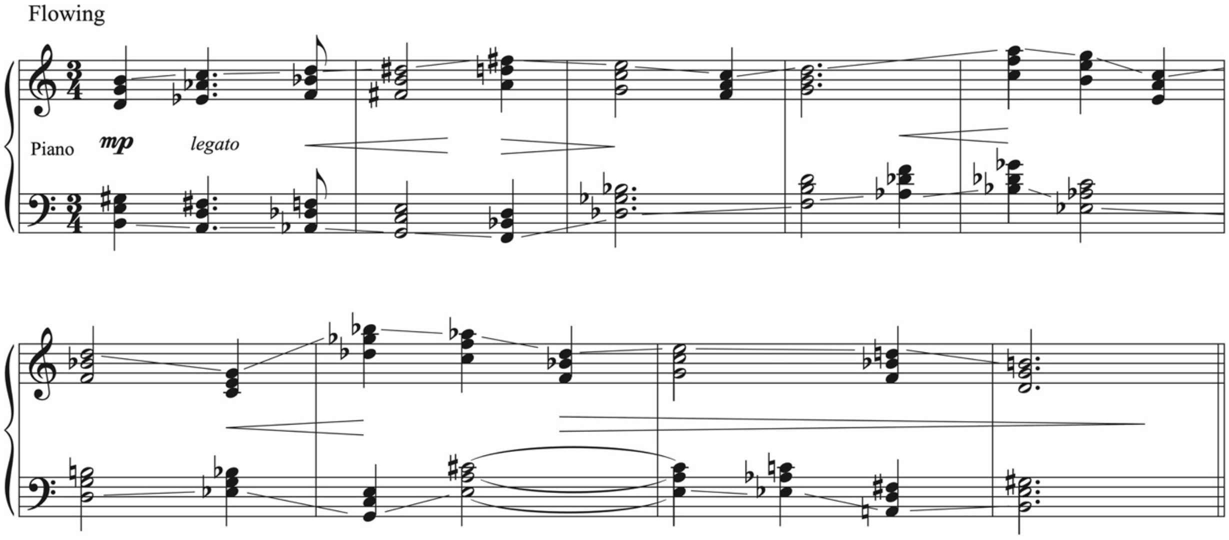
[135] Persichetti, *Twentieth Century Harmony*, 186.
[136] Ibid., 212.

In contrast to the previous rhythmically active music, Variation VI offers two chorale-like passages and opens with a setting of Exercise 7-20, Figure 2.44, which outlines counterchordal composition and employs a two-part counterpoint found in the outside voices with polyharmony.[137] Persichetti orchestrates this for a small contingent of woodwinds with muted brass and percussion for added orchestral color. A setting of Exercise 2-34, Figure 2.45, scored for woodwinds follows beginning in measure 235 and is heard again in measure 242, transposed up a whole step from E to G-flat pentatonic and scored for brass. This excerpt cycles through the five modes of a pentatonic scale in each of its measures which Persichetti explains breaks the harmonic monotony of a passage.[138]

Figure 2.44: Vincent Persichetti, *Twentieth Century Harmony*, Exercise 7-20



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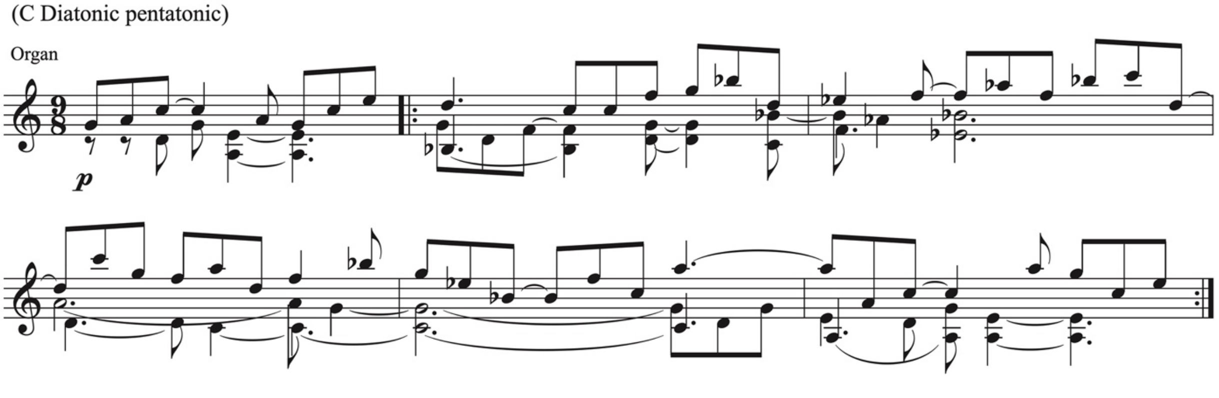
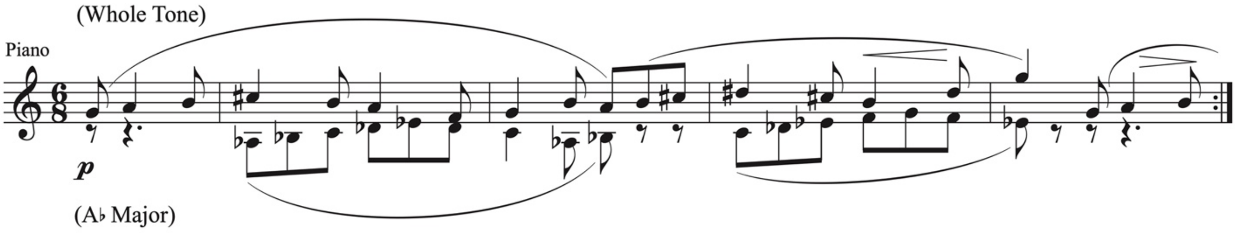
[137] Persichetti, *Twentieth Century Harmony*, 145.
[138] Ibid., 51.

Figure 2.45: Vincent Persichetti, *Twentieth Century Harmony*, Exercise 2-34



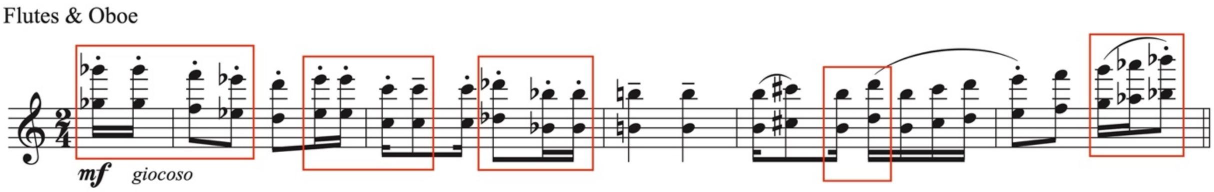
Exercise 2-49, Figure 2.46, demonstrates the technique of superimposed scales, in this case whole tone and major, and serves as the basis for Variation VII. Persichetti scores the exercise for clarinets and oboes in measures 257-261 transposed down to F major. The variation is a kaleidoscope of simultaneous scales which includes major, minor, pentatonic, whole tone, and octatonic. After a metric modulation from triple to duple meter, the final phrases of the variation combine rapidly modulating major scales in the woodwinds against polychordal writing in the brass and concludes with clusters of octatonic harmonies.

Figure 2.46: Vincent Persichetti, *Twentieth Century Harmony*, Exercise 2-49



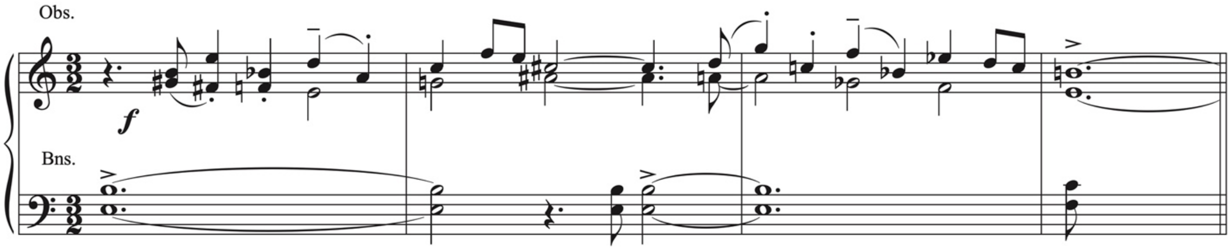
Variation VIII does not draw upon a textbook excerpt but rather develops the theme while following the Classical period theme and variations principle that the further the music moves from the theme the less recognizable it becomes. The minor third relationship remains central to the variation but appears as sequential adjacencies and melodic ambituses as shown in red in Figure 2.47. The variation borrows harmonic procedures previously heard such as polyharmonies and altered scales.

Figure 2.47: Vincent Persichetti, *Twentieth Century Harmony*, mm. 318-323



Persichetti combines two final excerpts in Variation IX with a setting Exercise 11-33 shown in Figure 2.48, a double pedal point étude,[139] followed immediately by material based upon Exercise 11-30 shown in Figure 2.49 which Persichetti used to demonstrate how unison writing is enhanced through antiphonal responses.[140] Variation IX is the shortest of the ten and acts as a transition into the Variation X which amalgamates alterations of previously heard material into cacophonous counterpoint.

Figure 2.48: Vincent Persichetti, *Twentieth Century Harmony*, Exercise 11-33



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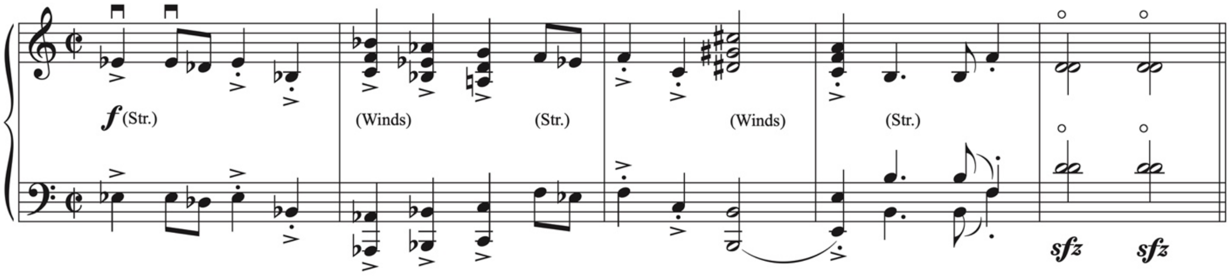
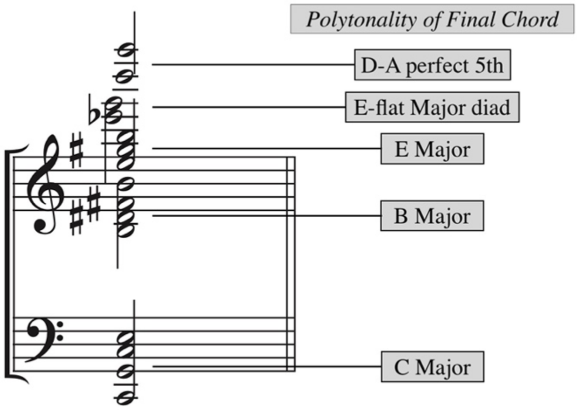
[139] Persichetti, *Twentieth Century Harmony*, 247.
[140] Ibid., 244.

Figure 2.49 Vincent Persichetti, *Twentieth Century Harmony*, Exercise 11-30



The tutti ensemble is divided into six levels of counterpoint with a development of the theme heard in alto saxophones, horns, and cornets. Various levels counterpoint modulate at different rates creating a complex polytonal texture. The density of Variation X subsides in the Coda which recalls the opening four-measure outburst and repeats the twelve-tone cluster shown in Figure 2.33 in measure 410 this time without sustain. As if in response to this “cruddy” chord, Persichetti returns to a new polytonality, outlined in Figure 2.50, at numerous points throughout the Coda. It is the final sonority of the piece which is sustained from measures 428-434 while the trombones, timpani, and xylophone utter the theme a final time.

Figure 2.50: Vincent Persichetti, *Masquerade for Band*, m. 434



Persichetti deftly weaves together the range of harmonic procedures identified in his textbook *Twentieth-Century Harmony*. *Masquerade for Band* represents his appeal to contemporary composers to create a modern common practice which embraced the ever-expanding harmonic possibilities.

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RECITAL THREE PROGRAM

Into the Labyrinth: A History of Physics from Galileo to Dark Matter (2021) Alberto Rojo
From free fall to increasing entropy (b. 1960)
From electromagnetism to relative time *arr. Michael Gould*
From the Certain to Uncertain *orch. Andrea Reinkemeyer*
From Atoms to Dark Matter

University of Michigan Ad Hoc Ensemble
World Premiere
January 27, 2023

Rossiniana (2017) arr. Stephen Gryc
Idle Amusements (b. 1949)
Frenzied Dance
Graceful Dance
Rude Awakening

University of Michigan Symphony Band Chamber Winds
January 29, 2023

Into the Labyrinth: A History of Physics from Galileo to Dark Matter (2021) Alberto Rojo
(b. 1960)
arr. Michael Gould
orch. Andrea Reinkemeyer

Alberto Rojo's *Into the Labyrinth* is a linear history of the scientific discipline of physics told through a pastiche of dramatic narration, north Argentinian folkloric music, and jazz drumming supported by an accompanying ensemble of winds and percussion. The piece itself, including its manifestation, centers around intersectionality. The work explores the aesthetic intersections of science and the arts as personified by its composer who is both an artist and physicist. Rojo believes the two disciplines are not antagonistic, or in his words "servants of different deities," but rather inextricably linked.[1] The composer, whose 2018 textbook *The Principle of Least Action* presents an in-depth history of physics, notes that advancements in scientific understanding are not typically made through the explanation of some experiment but in pursuit of resolving aesthetic discomfort with existing theory.[2]

Outside of his profession as a Professor of Physics at Oakland University, Rojo is a guitarist and singer who focuses on north Argentinian folklore traditions. He has recorded three albums and collaborated with many of that country's prominent folk musicians including Mercedes Sosa.[3] Rojo's interest in aesthetic intersection was ignited by the University of

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[1] Alberto Rojo and Michael Gould, interviewed by Nicholas Balla via Zoom, January 6, 2023.

[2] Alberto Rojo and Michael Gould, "Pre-Concert Conversation with Composer and Arranger," interviewed by Nicholas Balla, January 27, 2023.

[3] "Faculty Recital: Into the Labyrinth," program booklet, Friday, January 27, 2023, Keene Theater, Residential College, University of Michigan, 8:00pm (Ann Arbor, MI: University of Michigan School of Music, Theatre & Dance, 2023), 5.

Chicago lectures included in *Truth and Beauty: Aesthetics and Motivations in Science* by theoretical physicist Subrahmanyam Chandrasekhar. The composer cited the final lines of John Keats's 1819 "Ode on a Grecian Urn," from which Chandrasekhar's title originates, as a driving philosophy:

> Beauty is truth, truth beauty,—that is all
> 	Ye know on earth, and all ye need to know.[4]

The compositional process embodies another level of collaborative intersection. Rojo and *Into the Labyrinth*'s arranger Michael Gould, jazz drummer and Professor of Music at the University of Michigan, perform together in the Alberto Rojo Trio. They began collaborating in 2007 after connecting through U-M's Residential College of Music where they both taught at the time.[5] Their individual and collaborative projects create accessibility around complex scientific issues such as climate change and quantum physics.[6] While writing his textbook in 2016, Rojo approached Gould about a project which would similarly outline a broad history of physics.[7]

The two spent years writing music as well as discussing the most effective forms of storytelling. Drawing inspiration from Sergei Prokofiev's *Peter and the Wolf* (1936) and Aaron Copland's *Lincoln Portrait* (1942), the work would feature the Alberto Rojo Trio (Rojo playing guitar and singing with Gould's jazz drumming) together with narrator, specifically U-M Professor of Theatre & Drama Malcolm Tulip.[8] Tulip and Gould are seasoned collaborators who most recently wrote and performed an interdisciplinary piece titled *Remember Me* which was performed with the Tanz Tangente dance company in Berlin.[9]

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[4] John Keats, "Ode on a Grecian Urn," 1819, retrieved from https://www.poetryfoundation.org/poems/44477/ode-on-a-grecian-urn, February 21, 2023.
[5] Rojo and Gould, interviewed by Balla, January 6, 2023.
[6] Rojo and Gould, "Pre-Concert Conversation with Composer and Arranger," January 27, 2023.
[7] Rojo and Gould, interviewed by Balla, January 6, 2023.
[8] Rojo and Gould, "Pre-Concert Conversation with Composer and Arranger," January 27, 2023.

Concurrently, Rojo oversaw a parallel collaborative project with Argentinian songwriters whom Rojo asked to pen poetry inspired by physics;[10] two of these poems appear as lyrics in *Into the Labyrinth* as outlined in Appendix 2. Pedro Aznar's "Hilo de Oro" (Golden String), inspired by electromagnetism, appears in the second movement, and Luis Pescetti's "Arbol Cuenta" (A Tree Tells), found in the fourth movement, discusses Jan Van Helmuth's seventeenth century experiment which concluded that trees gain mass from air rather than soil. Movement three also includes haikus written by Rojo which outline what he considers the key problems in quantum physics: measurement, invisibility, and teleportation.

The narrative text weaves together the work of scientific figures including Galileo Galilei (1564-1642), Isaac Newton (1643-1727), Rudolf Clausius (1822-1888), Marie Curie (1867-1934), Albert Einstein (1879-1955), Max Planck (1858-1947), Wermer Heisenberg (1910-1976), Richard Feynman (1918-1988), and Vera Rubin (1928-2016). After the duo settled on a linear timeline, they struggled to tie the various concepts together. Dramaturge and former U-M professor Teresa Kovacs suggested the poetic prose of Nobel Prize winning Austrian playwright Elfriede Jelinek, the subject of her 2016 dissertation.[11] As noted in Appendix 2, excerpts from Jelinek's play *Kein Licht* ("No Light") link together the scientific writings.

As the project evolved into something closer to Prokofiev's and Copland's narrative pieces, the duo commissioned Andrea Reinkemeyer, U-M DMA composition alumnae, to orchestrate the accompaniment for small wind ensemble. Reinkemeyer received a completed guitar part with narration; the premiere of *Into the Labyrinth* heard on this recital, is what Gould describes as "a composition on top of a composition"[12] which bears aspects of all three artists.

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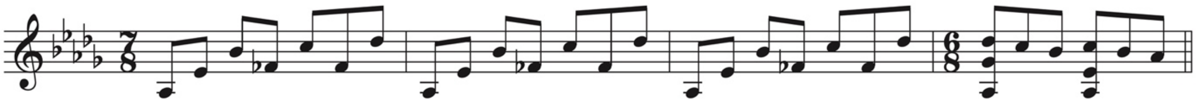
[9] "Faculty Recital: Into the Labyrinth," 5.
[10] Rojo and Gould, "Pre-Concert Conversation with Composer and Arranger," January 27, 2023.
[11] Rojo and Gould, interviewed by Balla, January 6, 2023.

The piece explores the intersection of Argentinian folkloric traditions, jazz, and classical art music. Through the years of playing in the Alberto Rojo Trio, Gould has developed a unique mixture of jazz and northern Argentinian rhythms which he improvised throughout the premiere performance (i.e., there is no notated drum part). The first movement, "From free fall to increasing entropy," opens with a cosmic, ethereal atmosphere created by bowed and scraped percussion. Solo guitar emerges to introduce an Argentinian-inspired folkdance borrowed from the Alberto Rojo Trio's piece "Duchamp" named after the French cubist painter. Marcel Duchamp was a natural subject for Rojo due to his interest in science, ten-year residency in Argentina, and regular chess matches against composer John Cage.[13] Rojo's piece is an off-kilter dance set in 7/8 meter, shown in Figure 3.1, inspired by Duchamp's work of painted broken glass titled *Bride Stripped Bare by Her Bachelors, Even* shown in Figure 3.2.[14]

Figure 3.1: Alberto Rojo, *Into the Labyrinth*, I. From free fall to increasing entropy, mm. 2-5



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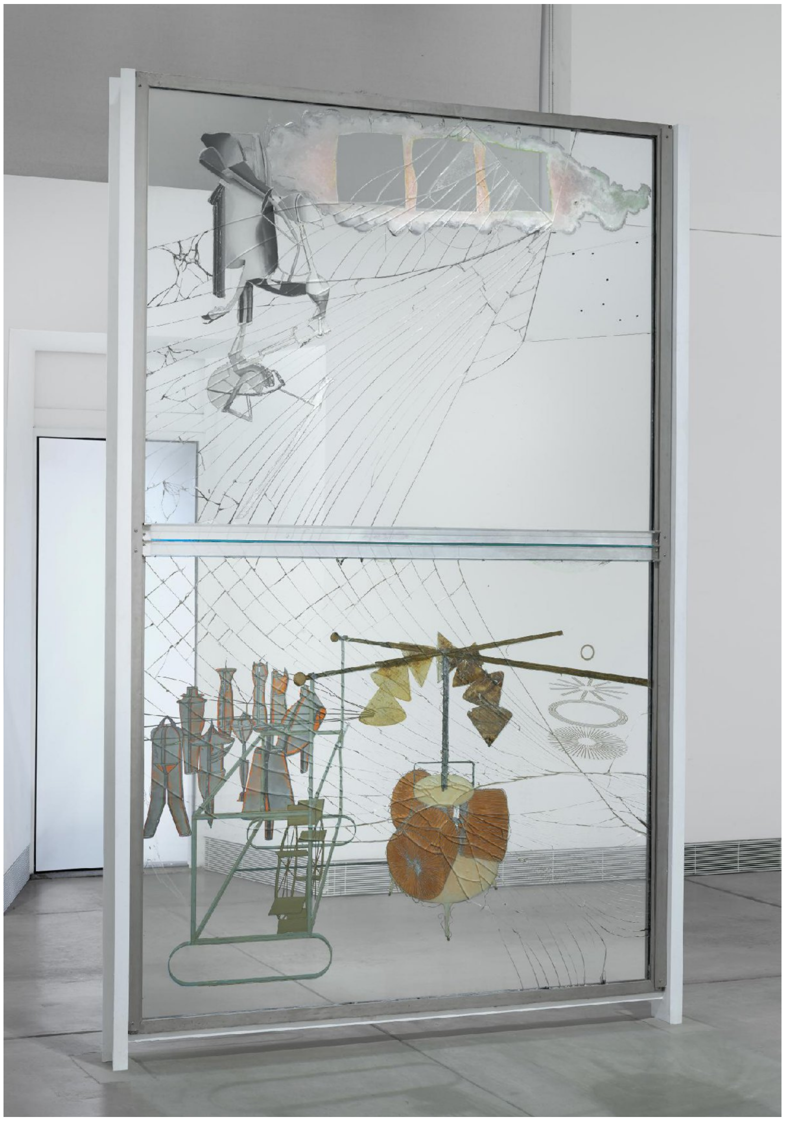
[12] Rojo and Gould, interviewed by Balla, January 6, 2023.
[13] Rojo and Gould, "Pre-Concert Conversation with Composer and Arranger," January 27, 2023.
[14] Ibid.

Figure 3.2: Marcel Duchamp, *Bride Stripped Bare by Her Bachelors, Even*, Oil, varnish, lead foil, and dust on two glass panels, 1923



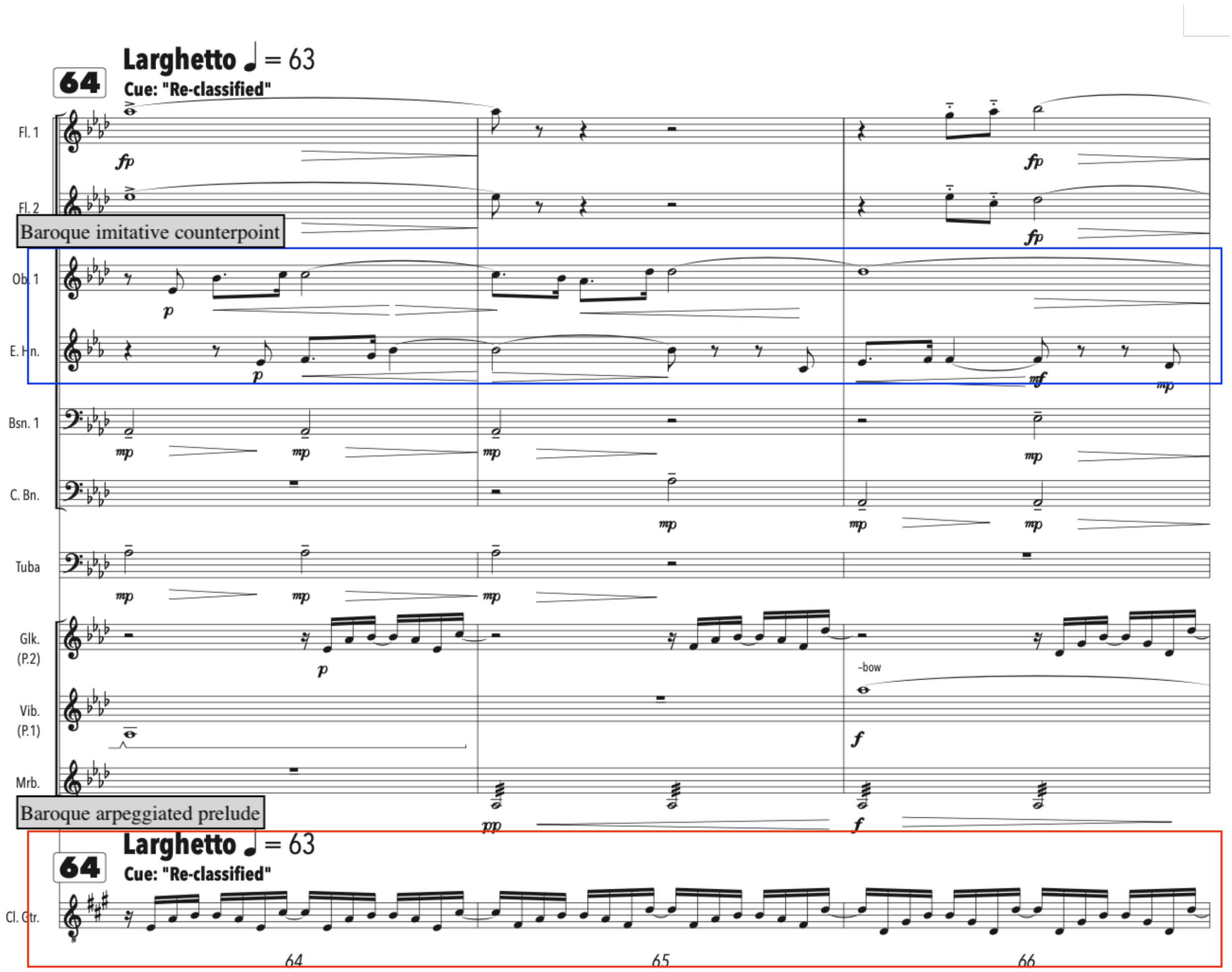
The opening narration at measure 38 reflects a sense of hopelessness underscored by Galileo's quotation:

> The book of the universe stands open before our eyes, it never disappears. But we cannot understand it without first learning to decipher the characters as they are

> written and to comprehend their language. It is written in mathematical language; its characters are triangles, circles, and other geometric figures, which are the key to unlocking its meanings; if we cannot understand these, we will remain wandering in a dark labyrinth.

At measure 54, the music turns tranquil and imitates a Baroque arpeggiated prelude, shown in Figure 3.3, as a historical reflection of Sir Isaac Newton's Laws of Motion (1686), introduced at measure 74.

Figure 3.3: Alberto Rojo, *Into the Labyrinth*, I. "From free fall to increasing entropy," mm. 64-66


64
Larghetto ♩ = 63
Cue: "Re-classified"
Fl. 1
Fl. 2
Baroque imitative counterpoint
Ob. 1
E. Hn.
Bsn. 1
C. Bn.
Tuba
Glk. (P.2)
Vib. (P.1)
Mrb.
Baroque arpeggiated prelude
Cl. Gtr.
fp
p
mp
mf
pp
f
-bow
64
65
66

Following vocal and drum solos between measures 90-103, the music dramatically shifts to a rousing *malambo*, an Argentinian folkdance typically performed by horsemen, *gauchos*, in a series of stomps, kicks, and foot scrapes.[15] Inspired by Ginastera's ballet *Panambí*,[16] Rojo's malambo, shown in Figure 3.4, is paired with Rudolf Clausius's definitions of thermodynamics, specifically the concepts of "energy" and "entropy," commonly associated with disorder and musical rendered through the constant shifts in metric organization.

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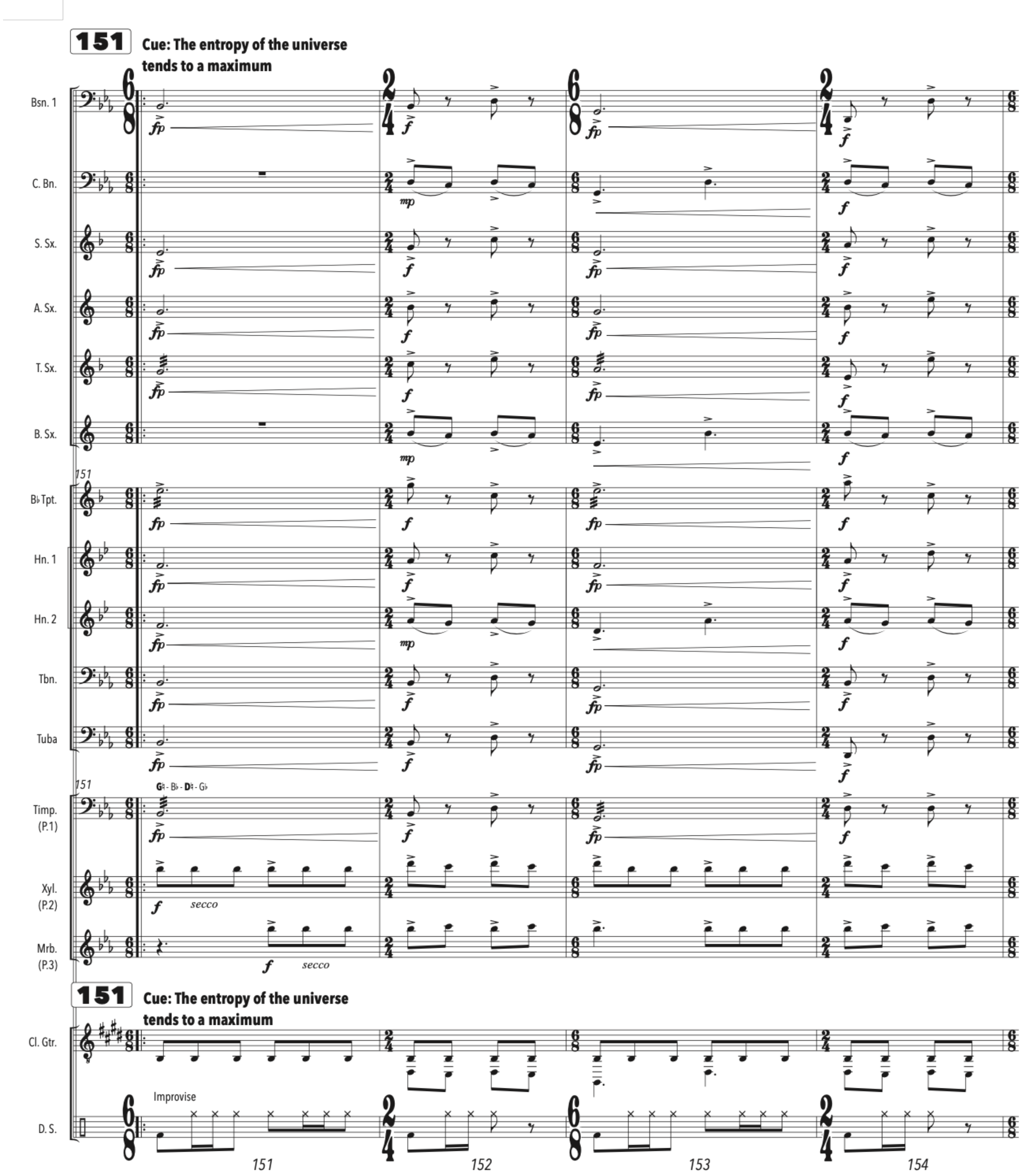
[15] Irma Ruiz, "Argentina: Traditional Music," in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/omo/9781561592630.013.60000200069.

[16] Deborah Schwartz-Kates, "Ginastera, Alberto (Evaristo)," in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.11159.

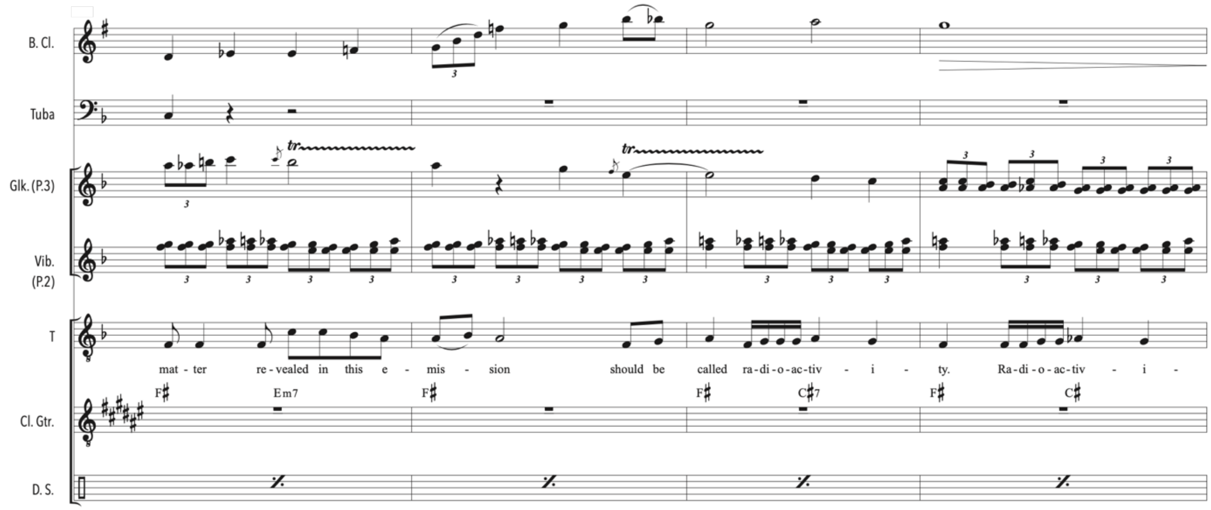
Figure 3.4: Alberto Rojo, *Into the Labyrinth*, I. “From free fall to increasing entropy,” mm. 151-154


151
Cue: The entropy of the universe tends to a maximum
Bsn. 1
C. Bn.
S. Sx.
A. Sx.
T. Sx.
B. Sx.
B♭ Tpt.
Hn. 1
Hn. 2
Tbn.
Tuba
Timp. (P.1)
G♮ - B♭ - D♮ - G♭
Xyl. (P.2)
Mrb. (P.3)
secco
Cl. Gtr.
D. S.
Improvise
fp
f
mp
151
152
153
154

The tuneful beginning of the second movement, “From electromagnetism to relative time,” alternates between sung poetry and narration describing James Clerk

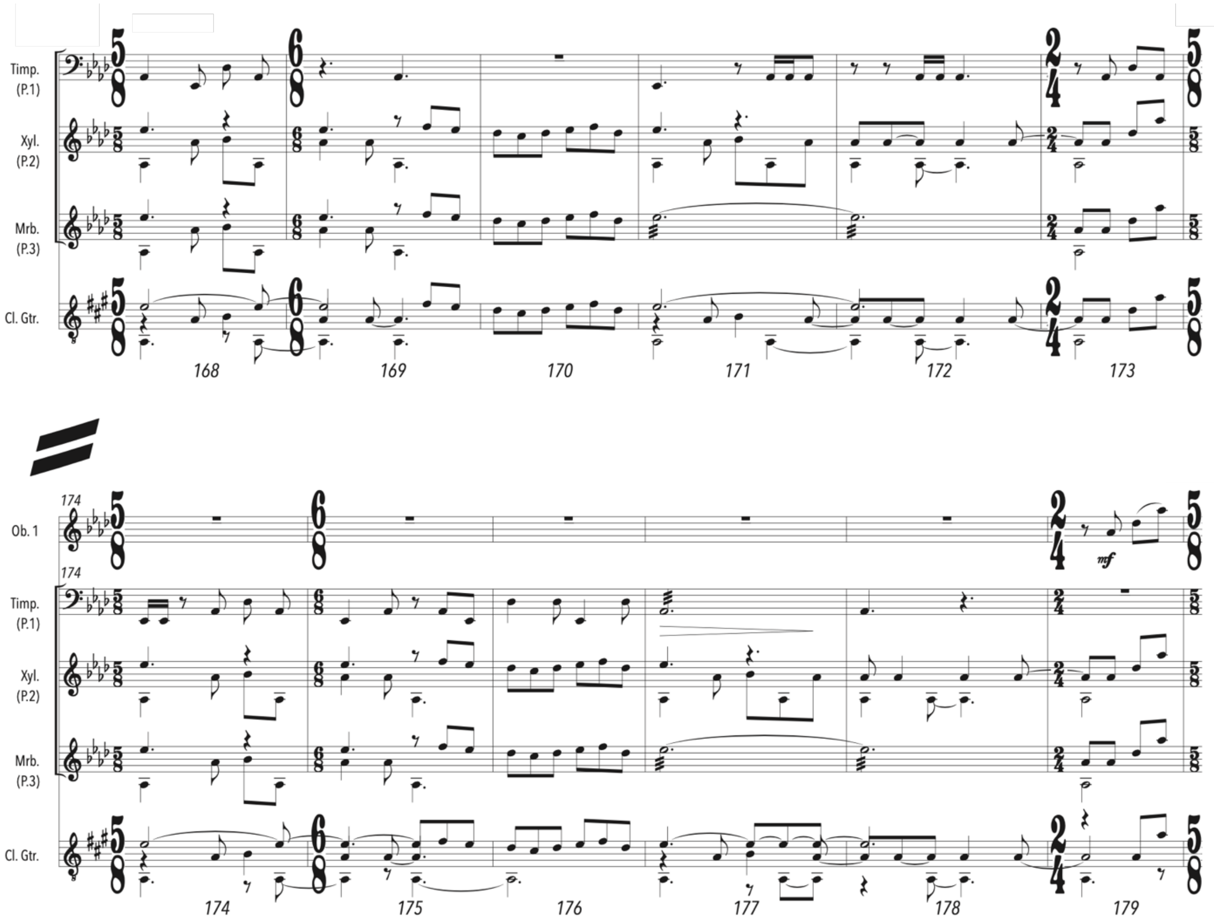
Maxwell's (1831-1897) and Hippolyte Fizeau's (1819-1896) discovery of electromagnetism. Marie Curie's 1896 discovery of radioactivity follows, beginning at measure 55, accompanied with fitting chromatic, unstable gestures, shown in Figure 3.5.

Figure 3.5: Alberto Rojo, *Into the Labyrinth*, II. "From electromagnetism to relative time," mm. 68-71


B. Cl.
Tuba
Glk. (P.3)
Vib. (P.2)
T
Cl. Gtr.
D. S.
tr
tr
mat - ter re - vealed in this e - mis - sion should be called ra - di - o - ac - tiv - i - ty. Ra - di - o - ac - tiv - i -
F♯
Em7
F♯
F♯
C♯7
F♯
C♯

The movement closes with Albert Einstein's work surrounding relativity, beginning at measure 74. The accompanying dance music shifts rhythmic expectations in imitation of "relative time," shown in Figure 3.6, before a second malambo emerges at measure 142. The movement ends with an exuberant tutti Argentinian dance flourish.

Figure 3.6: Alberto Rojo, *Into the Labyrinth*, II. "From electromagnetism to relative time," mm. 168-179


Timp. (P.1)
Xyl. (P.2)
Mrb. (P.3)
Cl. Gtr.
168
169
170
171
172
173
Ob. 1
174
mf
174
175
176
177
178
179

The third movement is a *bolero* in the vein of Maurice Ravel's eponymous work. The bolero originated as a triple-meter dance in Spain and flourished during the eighteenth century before spreading to Latin America.[17] According to the composer, the dance's monotonous repetition, shown in Figure 3.7, represents quantum physics' concern with discrete energy levels.[18]

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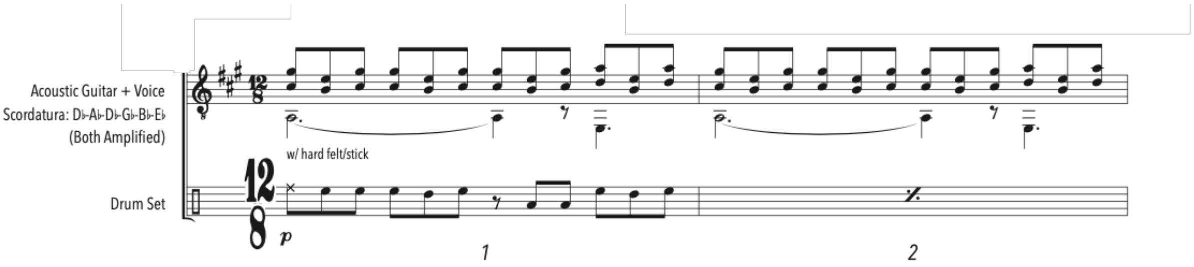
[17] George Torres, "The *Bolero Romántico,"* in *From Tejano to Tango: Latin American Popular Music* edited by Walter Aaron Clark (New York: Routledge, 2002), 152.

[18] Rojo and Gould, "Pre-Concert Conversation with Composer and Arranger," January 27, 2023.

Figure 3.7: Alberto Rojo, *Into the Labyrinth*, III. “From the Certain to the Uncertain,” mm. 1-2



Rojo invokes subtle changes to the bolero’s steady harmonic pattern to musically represent a shift “From the Certain to the Uncertain,” as the movement’s title implies. The narration centers around the work of Max Planck and Wermer Heisenberg, theoretical physicists who were pioneers of the theory of quantum mechanics and whose work transformed the understanding of atomic and subatomic processes.

The work concludes with “From Atoms to Dark Matter” which introduces the theoretical physicists Richard Feynman, known for the theory of quantum electrodynamics and his work in particle physics, as well as Vera Rubin, who provided the first evidence for the existence of dark matter. The movement begins with a setting of Luis Pescetti’s poem “Arbol Cuenta” (“A Tree Tells”) in alternating folksong styles. Rojo includes the pre-Columbian *baguala*, a north Argentinian song set in triple meter performed at the ritual marking of animals,[19] between measures 17-29 and 44-57. An example of the Rojo’s baguala is shown in Figure 3.8.

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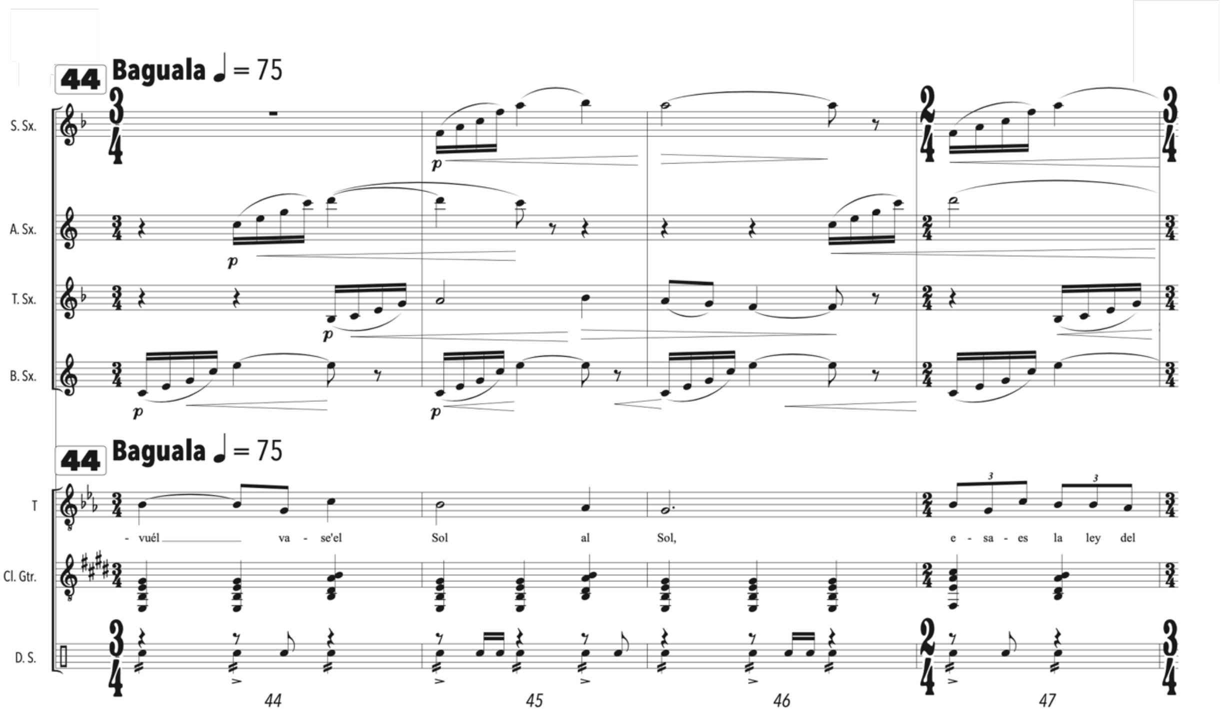
[19] William Gradante, “Baguala,” in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.01775.

Figure 3.8: Alberto Rojo, *Into the Labyrinth*, IV. “From Atoms to Dark Matter” mm. 44-47


44
Baguala ♩ = 75
S. Sx.
A. Sx.
T. Sx.
B. Sx.
44
Baguala ♩ = 75
T
- vuél va - se'el Sol al Sol, e - sa - es la ley del
Cl. Gtr.
D. S.
44
45
46
47

The second half of the movement, beginning at measure 78, is a *chacarera* dance from northwest Argentina named for the rural “chakras,” or farms, where it was originally performed.[20] The music features a unique “decaphonic” guitar of Rojo’s design that divides the octave into ten equal steps as opposed to the Western twelve.[21] The new temperament, that the composer described as, “sounding like an ethnic music for a culture that does not exist,” produces a distinctive color in concert with the cajón, played by solo drummer, Figure 3.9.

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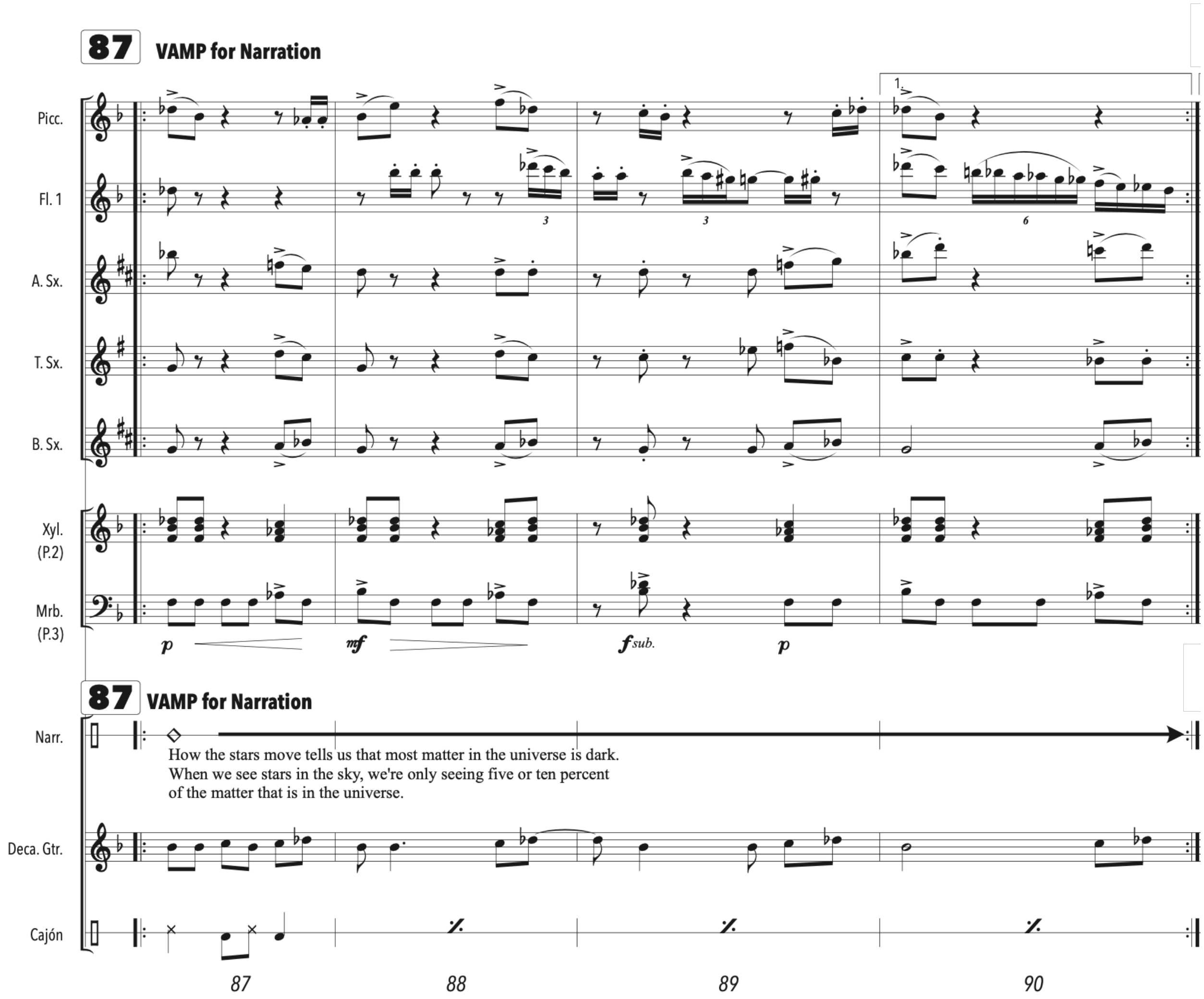
[20] David Otieno Akombo, *The unity of music and dance in world cultures* (Jefferson, NC: McFarland & Co., 2016), 134.

[21] Rojo and Gould, “Pre-Concert Conversation with Composer and Arranger,” January 27, 2023.

Figure 3.9: Alberto Rojo, *Into the Labyrinth*, IV. “From Atoms to Dark Matter,” mm. 87-90


87
VAMP for Narration
Picc.
Fl. 1
A. Sx.
T. Sx.
B. Sx.
Xyl. (P.2)
Mrb. (P.3)
p
mf
f sub.
p
87
VAMP for Narration
Narr.
How the stars move tells us that most matter in the universe is dark.
When we see stars in the sky, we're only seeing five or ten percent
of the matter that is in the universe.
Deca. Gtr.
Cajón
87
88
89
90

The fiery conclusion of work is initiated by an open-ended appeal to continue the search for understanding:

> We have peered into a new world and have seen that it is more mysterious and more complex than we had imagined. Still more mysteries of the universe remain

> hidden. Their discovery awaits the adventurous scientists of the future. I like it
> this way — Finding our way through the labyrinth.

The premiere presented on this recital fully encompasses the creators' collaborative ambitions. The preparation and performance of *Into the Labyrinth* integrated the intersectional aspects of its compositional process through the partnership between artists Alberto Rojo, Michael Gould, Andrea Reinkemeyer, Malcolm Tulip, and the twenty U-M SMTD student musicians.

Rossiniana (2017) arr. Stephen Gryc
(b. 1949)

Like many composers, Gioachino Rossini's career can be divided into three distinct periods: early, middle, and late. However, the entirety of his operatic works which gained him fame were written in his "early" period. He spent the "middle" period in retirement before emerging to entertain Paris's elite and write works that wouldn't be published for nearly a century during the "late" period. Rossini was born to musical parents in the small Italian town of Pesaro, situated on the Adriatic coast, February 29, 1792.[22] His father, Giuseppe, was a town trumpet and horn player, and his mother, Anna, was an operatic soprano who was typically cast as *seconda donna* and first took the stage when Gioachino was five.[23] The composer's youth was also colored by the Napoleonic Wars and his father's enthusiasm for the cause of liberty from papal authority which resulted in a brief imprisonment in 1800.[24]

Rossini began studying horn with his father in 1802 while Giuseppe Malerbi, a local canon with an extensive score collection, taught the young Rossini the basics of singing and counterpoint.[25] In 1804, he first appeared on the stage in Ferdinando Paer's *Camilla* in Bologna[26] and began formal musical training in the city's *Liceo Musicale* where he studied voice, cello, piano and counterpoint with the school's director, Padre Stanislao Mattei.[27] Despite his love for the works of Haydn and Mozart, which were considered too conservative for the contemporary Italian trends, Rossini felt hindered by the Liceo's prescribed contrapuntal pedagogy and left the school in 1810 for Venice to try his hand at operatic composition.[28]

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[22] Richard Osborne, "Rossini's Life" in *The Cambridge Companion to Rossini* edited by Emanuele Senici (Cambridge: Cambridge University Press, 2004), 11.

[23] Ibid.

[24] Philip Gossett, "Rossini, Gioachino (Antonio)," in *Grove Music Online* (Oxford: Oxford University Press, 2001), https://doi.org/10.1093/gmo/9781561592630.article.23901.

Over the course of following nineteen years, Rossini wrote thirty-nine operas, most of which were highly successful and considered transformative of the early-nineteenth century operatic tradition.[29] His first opera, a one-act comedy for Venice's *Teatro San Moisè*, entitled *farsa La cambiale di matrimonio* premiered November 3, 1810. His first two-act opera, *La pietra del paradone*, premiered on the Milan stage September 1812 followed by his first full operatic endeavor, *Tancredi*, which premiered in Venice in 1813.[30] During this period, Italian theatre impresarios sought to outdo one another in the acquisition of new works, commissioning new talent, and training young musicians.[31] Rossini's early successes caught the attention of gambling magnate Domenico Barbaja, the impresario for the Neapolitan *Teatro San Carlo*, who brought the composer to Naples where he wrote eighteen operas between 1815 and 1822 including *Elisabetta regina d'Inghliterra* (October 1815), *Il barbiere di Siviglia* (February 1816), and *La gazza ladra* (May 1817).[32]

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[25] Gossett, "Rossini, Gioachino (Antonio)."
[26] Osborne, "Rossini's Life," 12.
[27] Gossett, "Rossini, Gioachino (Antonio)."
[28] Osborne, "Rossini's Life," 12.
[29] Ibid., 19.
[30] Ibid., 13.
[31] Gossett, "Rossini, Gioachino (Antonio)."
[32] Ibid.

Rossini left Italy for Paris in 1823 where he negotiated a contract to compose a *grand opéra*, which would eventually be *Guillaume Tell*, and assist the administration of the *Téâtre Italian*.[33] His rate of composition dramatically diminished during this period due to the onset of illness and the death of many friends and his mother in February 1827.[34] In May 1829 he signed a contract with the government of King Charles X which granted him a lifetime annuity independent of his compositional activities and allowed him to retire to Bologna after the August 1829 premiere of *Guillame Tell* at *l'Opéra Garnier*.[35]

Rossini along with his new wife Olympe spent the next twenty-six years in Bologna, and the composer wrote sporadically but never penned another opera.[36] This period of Rossini's life was filled with personal loss, debilitating illness, and an obsession with death.[37] In 1855, Olympe insisted that they return to Paris for French doctors and society, and the couple took up residence in the *rue de la Chaussée d'Antin* and acquired land outside of Paris in Passy where they built a new villa.[38] Upon their return to Paris, the composer's health improved along with the return of his sense of humor. He resumed composing but limited his output to mainly small works for the piano, voice, and chamber ensembles. In 1858, the Rossinis began hosting their famous and extravagant *Samedi soirs* (Saturday evenings) gatherings.[39]

The parties began as small celebrations of a dozen or so guests but grew into large, coveted social occasions which hosted artists, scientists, politicians, diplomats, and Parisian elites.[40] The *soirées* gave Rossini the opportunity to provide his guests with his gastronomic experiments accompanied by musical programs which he carefully curated. Musical selections included piano and chamber works by composers such as Pergolesi, Haydn, Mozart, Gounod, and Verdi, but most of the programs included new works by Rossini which he called *Les Péchés de vieillesse* (Sins of Old Age) totaling over 150 works for voice, solo piano, and chamber ensembles divided into fourteen volumes.[41] After each *soirée*, Olympe would lock away the manuscripts[42] because the composer refused to publish the works during his lifetime; it was not until the *Fondazione Rossini* began editing the works in the 1950s that they became available to the public.[43]

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[33] Osborne, "Rossini's Life," 18.
[34] Gossett, "Rossini, Gioachino (Antonio)."
[35] Ibid.
[36] Gossett, "Rossini, Gioachino (Antonio)."
[37] Osborne, "Rossini's Life," 21.
[38] Ibid, 18.
[39] Ibid, 22.
[40] James Harding, *The Great Composers: Rossini* (London: Faber and Faber, Ltd., 1971), 77.

Rossini's wit, charm, and craft combine to create a blend of sophistication and simplicity through *Les Péchés*. He deliberately chose humorous or grotesque titles and parodied the works of other composers such as Offenbach, Verdi, and Chopin. In "Chanson du bébé" (Song of the baby) for voice and piano, the text imitates the monophonic words of a newborn ("papa," "pipi," "caca") while "Toast pour le nouvel an" (Toast for the new year) simultaneously celebrates champagne and the virgin Mary.[44] These works would inspire later composers such as Benjamin Britten who composed the orchestral suites *Soirées musicales* (1936) and *Matinées musicales* (1941) after the late Rossini works. Ottorino Respighi also orchestrated some of *Les Péchés* for his ballet *La Boutique fantastique* (1918) as well selections from Volume XII for his orchestral suite *Rossiniana* (1925).

In the same vein, contemporary composer Stephen Gryc wrote his own *Rossiniana* in 2017 which includes three of "The Sins" and one work from Rossini's 1835 *Les Soirées musicales*, a collection of eight chamber arias. Gryc is a Professor Emeritus of music composition and theory at the Hartt School of Music at the University of Hartford. He holds a Doctor of Musical Arts degree in composition from the University of Michigan where he studied with Leslie Bassett and William Bolcom.[45] Gryc's Rossini arrangements draw from various volumes as noted in Figure 3.10 and are composed for a woodwind octet comprising pairs of flutes, oboes, clarinets, and bassoons.

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[41] Richard Osborne, *Rossini: His Life and Works* (Oxford: Oxford University Press, 2007),154

[42] Harding, 79.

[43] Gossett, "Rossini, Gioachino (Antonio)."

[44] Richard Osborne, *Rossini* (London: J.M. Dent & Sons, Ltd., 1986.), 267.

Figure 3.10: Stephen Gryc, *Rossiniana*, original material sources

Gryc Movement	Rossini Source	Volume
I. Idle Amusements	*Les Péchés de vieillesse*, "Assez de memento: dansons" (Enough mementos, Let's Dance)	VI. "Album pour les enfant dégourdis" (Album for Lively Children)
II. Frenzied Dance	*Les Soirées musicale*, "Tarantella Napoletana"	
III. Graceful Dance	*Les Péchés de vieillesse*, "La Pesarese" (The Pesaro)	VI. "Album pour les enfant dégourdis" (Album for Lively Children)
IV. Rude Awakening	*Les Péchés de vieillesse*, "Un réveil en Sursaut"	VII. "Album de chaumière" (Cottage Album)

The selected works from *Rossiniana* feature the unostentatious formal structures as well as the humorous harmonic and rhythmic structures of Rossini's late works. Although the work is four movements, it does not follow a symphonic formal pattern, nor do the four dances which comprise its movements follow any dance suite design; it most closely reflects a *divertimento*. The first movement, "Idle Amusements," is a rondo with conventional symmetrical periods which follows a conventional harmonic organization as outlined in Figure 3.11.

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[45] Stephen Gryc, "Biography," Accessed February 22, 2023, https://www.stephengryc.com/biography/.

3.11: Stephen Gryc, *Rossiniana*, “I. Idle Amusements” formal structure

Formal Area	Sub-Area	Measures	Tonal Center
A	a1 a2 a1	1-14 15-22 23-31	F (I)
B	b1 b1 ReTr	32-41 42-49 50-56	C (V)
A	a1 a2 a1	57-68 69-76 77-85	F (I)
C	c1 c1 c2 c1 c1	86-95 69-103 104-119 120-127 128-136	a (iii) F (I) a (iii)
A	a1 a2 a1 a3 c2	137-148 149-156 157-165 166-180 181-196	F (I)
Codetta	k1 k2 (B ReTr) k3 (*Vivace*)	197-211 212-219 220-233 234-443	F (I)

Gryc captures the pianistic lightness of the movement through woodwind facility while expanding the timbral palette to enhance the original piano works. The orchestration remains faithful to the original piano score’s registration and voicing as shown between Figures 3.12 and 3.13. Differences in Gryc’s score are a result of editorial choices pertaining dynamics as well as articulations which act to capture nineteenth century piano performance practice through modern notional conventions.

Figure 3.12: Gioachino Rossini, “Assez de memento,” mm. 15-22

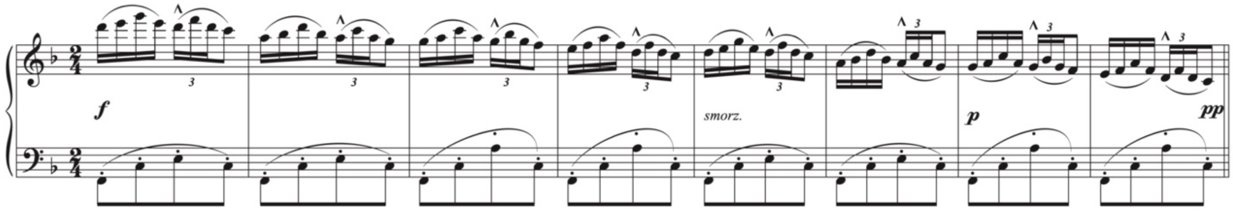
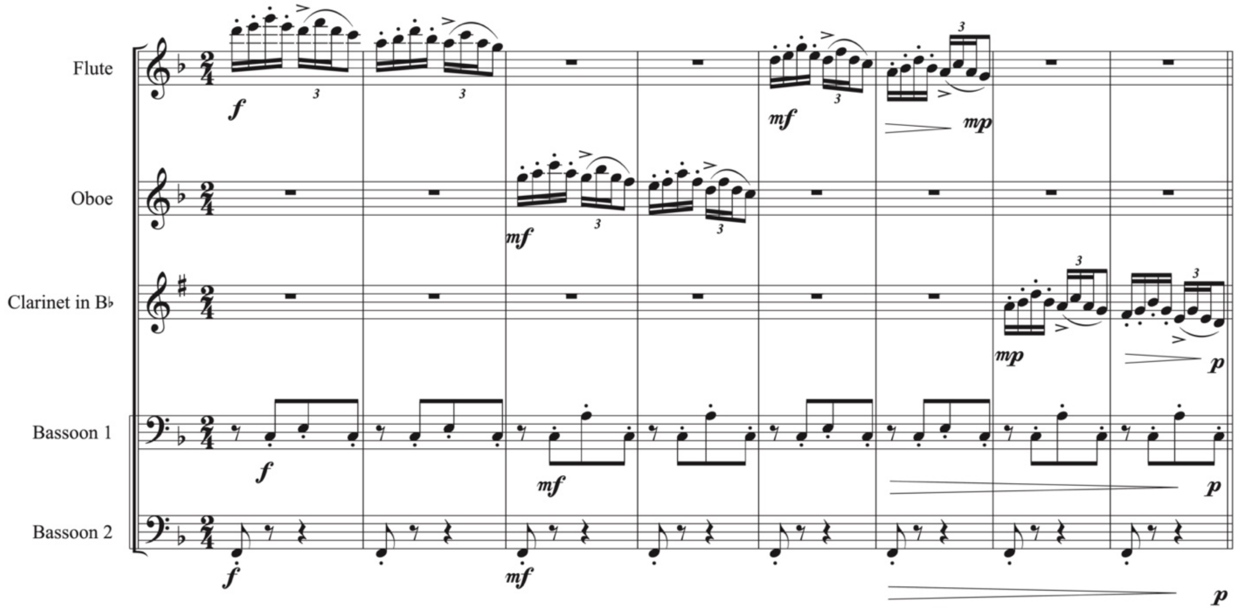


Figure 3.13: *Rossiniana*, “I. Idle Amusements,” mm. 15-22



Rossini considered himself a “fourth rate piano player,” though many would claim this was a gross understatement; nevertheless, the movements of Gryc’s work demonstrate Rossini’s utilization of sequential repetition which he used to his advantage as the performer of these parlor pieces.[46]

The second movement of *Rossiniana*, “Frenzied Dance,” is an arrangement of Rossini’s famous Neapolitan Tarantella “La Danza” from *Les soirées muiscales*. Unlike the other three movements, Gryc takes compositional liberties in this arrangement by adding supplementary doublings and a fuller bass line which would have been impossible to perform on the piano; the result is a more resonant arrangement akin to the chamber winds genre. A comparison between the original piano score and Gryc's arrangement is provided between Figures 3.14 and 3.15.

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[46] Gossett, “Rossini, Gioachino (Antonio).”

Figure 3.14: Gioachino Rossini, "La Danza," mm. 1-5

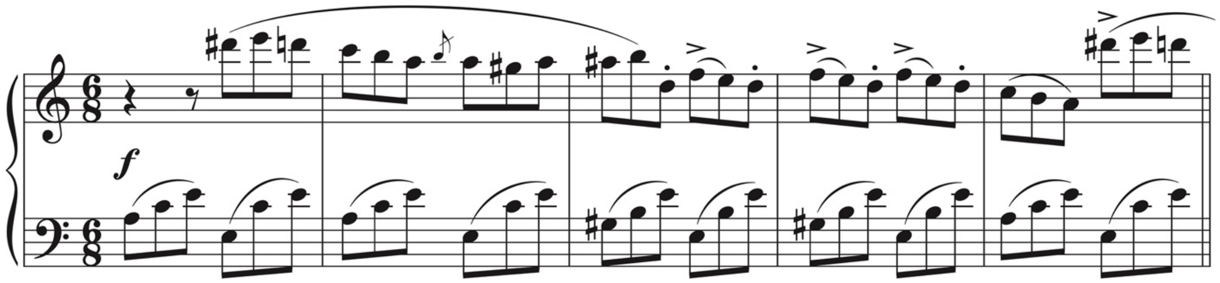
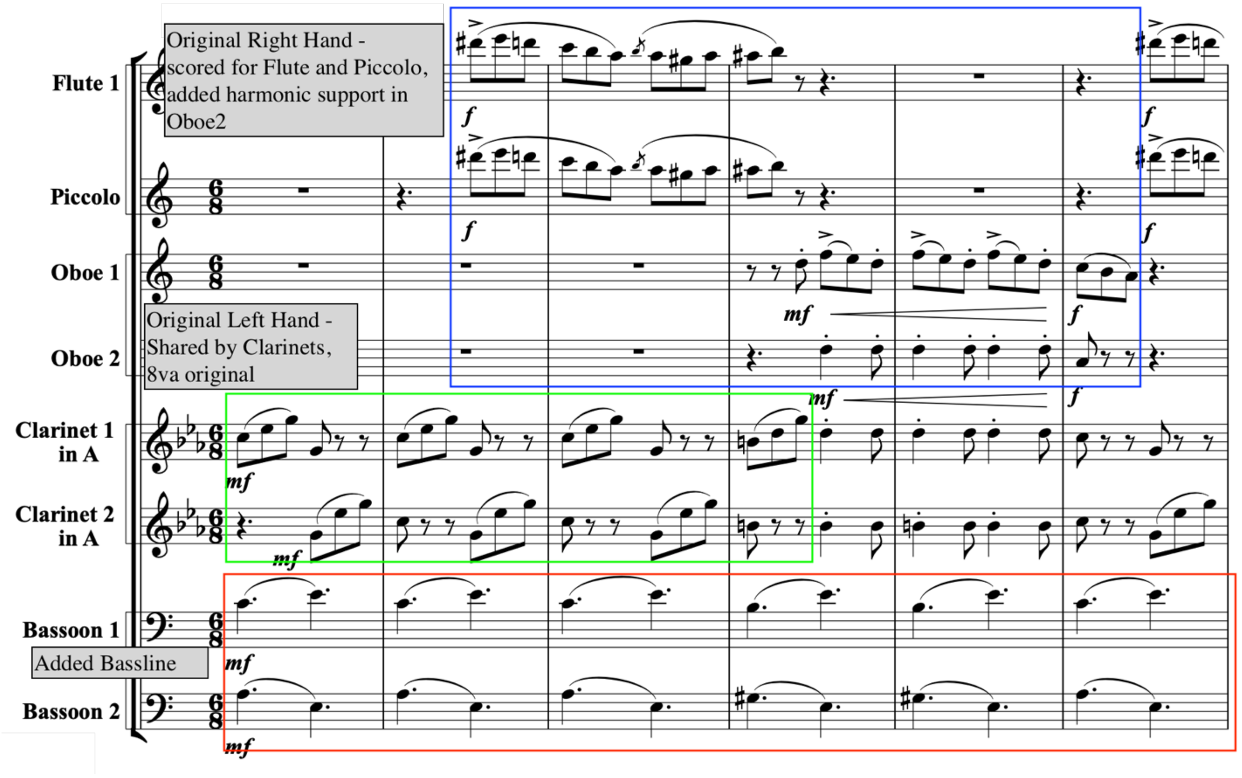


Figure 3.15: Stephen Gryc, *Rossiniana*, "Frenzied Dance," mm. 1-6


Original Right Hand - scored for Flute and Piccolo, added harmonic support in Oboe2
Original Left Hand - Shared by Clarinets, 8va original
Added Bassline
Flute 1
Piccolo
Oboe 1
Oboe 2
Clarinet 1 in A
Clarinet 2 in A
Bassoon 1
Bassoon 2

Despite the orchestrational changes in "Frenzied Dance," Gryc maintains Rossini's *da capo aria* formal structure and harmonic content which is outlined in Figure 3.16.

3.16: Stephen Gryc, *Rossiniana*, "II. Frenzied Dance" formal structure

Formal Area	Sub-Area	Measures	Tonal Center
A (Introduction)	a1	1-9	a (i)
	a2	10-18	
	a3	19-25	
	a4	26-37	
	ak	38-49	
A	a1'	50-66	a (i)
	a2	67-74	
	a5 (new)	75-90	
	a3	91-99	
	a4	100-110	
B	b1	11-127	A (I)
A	Exact Repeat	128-194	a (i)
B	Exact Repeat	195-210	A (I)
A (Close)	a1	211-218	a (i)
	a2	219-31	

The third movement, "Graceful Dance," returns to rondo form and is the most harmonically sophisticated of the collection as outlined in Figure 3.17.

Figure 3.17: Stephen Gryc, *Rossiniana*, "III. Graceful Dance" formal structure

Formal Area	Sub-Area	Measures	Tonal Center
Introduction	n1	1-11	B-flat (I)
A	a1	12-19	B-flat (I)
	a2	20-23	
	a1	24-33	
B	Tr	34-41	D-flat (III) → F (V)
	b1	42-49	B-flat (I) → d (iii)
	ReTr	50-67	Unstable
A	Exact Repeat	68-88	B-flat (I)
C	c1	89-96	D-flat (III) – e-flat (iv)
	c2	97-130	Unstable
A	Exact Repeat	131-153	B-flat (I)
Coda	(n1)	154-176	Unstable → B-flat

The title and music may imply an aristocratic minuet, albeit more of the Schubertian quality than Mozartian. The opening theme *A* is straightforward in design, but both intermediary modules *B* and *C* are highly unstable in phrasing and harmonic structure. Both harmonically meander as if large retransitions rather than new tonal areas. The coda, one of Rossini's more humorous moments, approaches but evades a Perfect Authentic Cadence in the tonic seven times before finally resolving in the last measure.

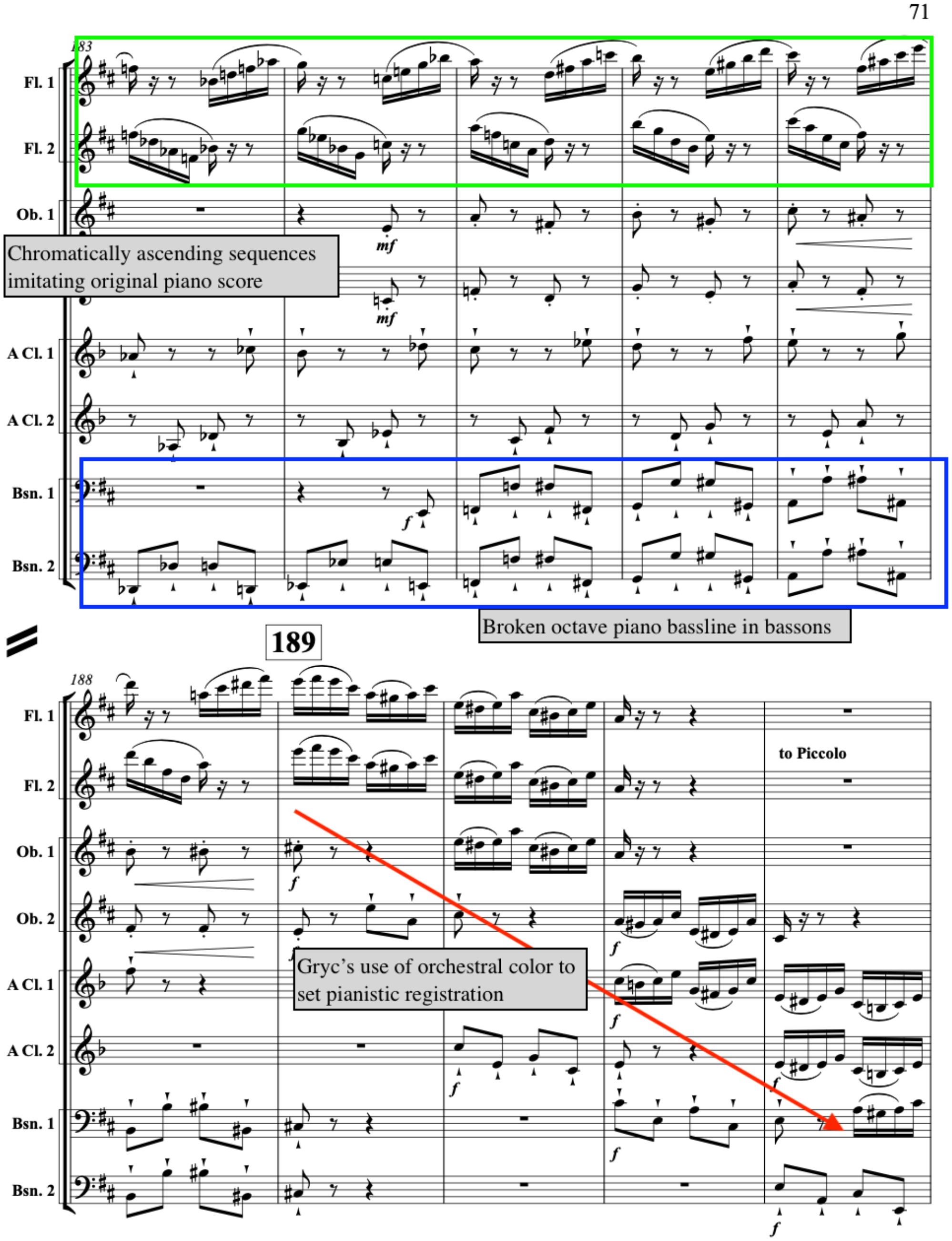
"Rude Awakening," Gryc's final movement, is a showpiece for the woodwind octet and marked *Allegro vivace* with perpetual harmonic sequences of sixteenth-note motives. Rossini's piano work is a Type 1 Sonata ("Sonatina") which Gryc truncates by excluding the transition and secondary theme from the recapitulation as shown in Figure 3.18.

Figure 3.18: Stephen Gryc, *Rossiniana*, "IV. Rude Awakening" formal structure

Formal Area	Sub-Area	Measures	Tonal Center
Exposition	Primary Theme	1-42	D (I)
	Transition	43-90	Unstable
	Secondary Theme	91-140	A (V)
Retransition		141-217	Unstable
Recapitulation	Primary Theme	218-259	D (I)
	Codetta	260-271	D (I)

Figure 3.19 shows an excerpt from *Rossiniana* which showcases the woodwind virtuosity of Gryc's arrangement necessary to perform Rossini's motivic sequences.

Figure 3.19: Stephen Gryc, *Rossiniana*, “IV. Rude Awakening,” mm. 183-192


71
183
Fl. 1
Fl. 2
Ob. 1
mf
mf
A Cl. 1
A Cl. 2
Bsn. 1
f
Bsn. 2
189
188
Fl. 1
Fl. 2
to Piccolo
Ob. 1
f
Ob. 2
f
A Cl. 1
f
A Cl. 2
f
Bsn. 1
f
Bsn. 2
f

Chromatically ascending sequences imitating original piano score

Broken octave piano bassline in bassons

Gryc’s use of orchestral color to set pianistic registration

The arranger’s choice to write for pairs of woodwinds with the exclusion of horns, atypical in tradition of *harmonimusik* or later imitative works, allows *Rossiniana* to reproduce the piano’s facility and uniform timbral spectrum across registers. Gryc’s octet captures the lighthearted, whimsical affect of Rossini’s original *soirée* compositions.

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APPENDICES

Appendix 1: Correspondences

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Appendix 2: *Into the Labyrinth* Text and Translations

MOVEMENT ONE: From free fall to increasing entropy

> As I sit here, in the middle of the night, asleep, not asleep, dreaming while awake, so many mysteries of the universe remain hidden: unseen, unheard, un-thought of.
>
> The people moved out, they don't want to stay, the healthy ones. The noise is over. Listen, if you hear this, the noise has long died down, you missed it, now no one makes any noise for you, except in your ears, if you let it in. It is all over. So now you insist on making lots of noise but this one too will resist. What was the dance floor at the center, is now at the center of something else, empty, You expect noise from me, music, concrete, commands, commotion. Tell me where, from where?
>
> Elfriede Jelinek, *Kein Licht* (2011), trans. Gitta Honegger

What do we know Galileo?

> We must look!
> The book of the Universe "stands open before our eyes. It never disappears. But we cannot understand it without first learning to decipher the characters as they are written and to comprehend their language. It is written in mathematical language; its characters are triangles, circles and other geometric figures, which are the key to unlocking its meanings; if we cannot understand these we will remain wandering in a dark labyrinth."
>
> Galileo Galilei, *Il Saggiatore (1623)*

> "Nature itself, in all her works, in the performance of which employs the first, simplest, and easiest means."
>
> Galileo Galilei, *Dialogue Concerning the Two Chief World Systems (1632)*

> But maybe we human beings do not even exist? Many objects that we postulated through theoretical means turned out to be non-existent sooner or later, like electro-magnetic ether or the notion of heat as some sort of matter. So maybe we don't exist either? Our values are so contradictory. Such a thing as we are cannot possibly exist. That would be an offense against the values that created us, an offense against the aesthetic sensibility of our creators and furthermore an offense

> against the interpreters who want to tell us who we are and what we have done, so that we can be re-evaluated and re-classified.
>
> Elfriede Jelinek, *Kein Licht* (2011), trans. Gitta Honegger

And then when it seemed that we were to remain in the dark, Isaac, the natural philosopher, emerged from the Great Plague:

> LAW I
> "Every body perseveres in its state of being at rest, or on uniform motion in a straight line, unless it is compelled to change its state by forces impressed."
>
> LAW II
> "A change in motion is proportional to the motive force impressed; and takes place along the straight line in which that force is impressed. "Newton, almost out of nothing, out of
> an era of witchcraft and sorcery, comes up with the mathematics of the universe, he comes up with a theory of almost everything.
>
> LAW III
> "To any action there is always an opposite and equal reaction; In other words the actions of two bodies upon each other are always equal and always opposite in direction.
>
> Isaac Newton, *Philosophiæ Naturalis Principia Mathematica (1687)*

What do we know Claussius?

> We can prove that, because of the atomic movement in systems consisting of many atoms "All transformations occurring in Nature may take place in a certain direction [only]" In fact, there are two fundamental magnitudes, one called energy, and the other "I have called Entropy:
>
> ONE, "The energy of the universe is constant
> TWO, The entropy of the universe tends to a maximum"
>
> Rudolf Clausius, *"Concerning Several Conveniently Applicable Forms for the Main Equations of the Mechanical Heat Theory" (1865)*

> "Nothing" could be repeated and revived at random. It would remain a Nothing, but could be repeated over and over again; a repeatable chaos until we would no longer know if it was the same or if it had become another chaos already.
>
> Elfriede Jelinek, *Kein Licht* (2011), trans. Gitta Honegger

MOVEMENT TWO: From Electromagnetism to Relative time

> We would have to improvise, and produce again and again and technology would also have to reproduce again and again. Technology is waiting to take anything we produce, it will rip it out of our hands, it will take it without looking at it, it doesn't care, it repeats what we throw it, what we present, and then it repeats something else which, nonetheless, will be the same as the earlier one. Technology doesn't care what it repeats, until it's all the same, absolutely the same, one and the same.
>
> Elfriede Jelinek, *Kein Licht* (2011), trans. Gitta Honegger

But back to the search.

What do we "know my dear Maxwell?"

What you "see" in the dark is what you get!
What else?
What else?
Maxwell determined through deduction the velocity of propagation of waves of electricity and magnetism to be 193,088 miles per second.

Monsieur Fizeau determined by direct experiment the velocity of light is curiously 193,118 miles per second-nearly the same as deduced by Maxwell.

Almost indistinguishable! The coincidence is not merely numerical--light is a wave of electricity and magnetism, an electromagnetic wave.

> All the elements emitting such radiation I have termed *radioactive*, and the new property of matter revealed in this emission has thus received the name *radioactivity*.
>
> Marie Curie, *Nobel Lecture (1911)*

> How unlikely that something like us is even qualified to exist! Too bad! We were so much looking forward to us! What we wish for is never sufficient, whereas the earth is already more than sufficient. Enough to go around and then she goes for even more, she is quite shameless how far she goes, spreading out, elbowing out everything that's in her way, probably swallowing even the tones which we sighed into the strings, well, we really wanted to play softly from the start. But inaudibly? That's going too far. It makes no difference though, even if we press down the bow with a bang, it can't be heard.
>
> Elfriede Jelinek, *Kein Licht* (2011), trans. Gitta Honegger

What do we know Dr. Einstein?

> Listen to this. It is known, by some, that Maxwell’s theory of electrodynamics, as usually understood, when applied to moving bodies leads to asymmetries which do not appear to be inherent to the phenomena.
>
> This leads to the following based on the principle of relativity and on the principle of the constancy of the velocity of light.
>
> 1. Relativity: The laws by which the states of physical systems undergo change are not affected, whether these changes of state be referred to the one or the other of two systems of co-ordinates in uniform translatory motion.
> 2. The constancy of the Velocity of Light: Any ray of light moves with velocity c, whether the ray be emitted by a stationary or by a moving body, hence... Electric and magnetic forces are not separate, but different manifestations of the same thing!
>
> *Albert Einstein, On the Electrodynamics of Moving Bodies (1905)*

Song Text and Translation:

HILO DE ORO by Alberto Rojo and Pedro Aznar	GOLDEN STRING Translated by Alberto Rojo
En la frontera	On the frontier
no hay nada que separe	there is nothing to separate
sólo una fuerza	just a force
Mi cuerpo es esta danza	My body is this dance
de cargas que se enredan	of entangled charges
Lo que se atrae	What attracts
y lo que se repele	and what repels
son uno solo	they are one
Me canto y me celebro	I sing and celebrate myself
y soy tú, que es lo mismo	and I am you, which is the same
Río de perlas	Pearl river
soga que anuda al mundo	rope that ties the world
eres misterio	you are mystery
Hasta la luz te nombra	Even the light names you
viaja a tu mismo tempo	travels at your very tempo
Los que has amado	The ones you have loved
chispas del mismo fuego	are sparks of the same fire
que arde en tus manos	that burns in your hands
Velas del mismo viento	Candles of the same wind
donde los mundos vuelan	where worlds fly
Música antigua	Ancient music
tono que trae y lleva	tone that brings and carries

hilo de oro	Golden string
Ave de mil colores	Bird of a thousand colors
somos tu melodía	we are your melody.

MOVEMENT THREE: From the Certain to Uncertain

> Now, what about this riddle?
> If music is time, now it must be half-time, only no one announces it to us, it doesn't appear on any board and no one sends us off the field. And we don't even hear half the tones, not to be confused with the half-tones we produce. And our quarter- and eighth-notes: What are they to do then? They are out of time.
>
> Compared to the half-life time, our time is worth nothing at all. Yes, maybe this is why we hear nothing anymore, because the half-life time has already hurried far ahead of us into the future?
> In ten thousand years, perhaps, one will hear a soloist's half-tone, and half the tones out of us, the orchestra! Yes, the note values, which kept us busy for so long, as if nothing else existed.

Elfriede Jelinek, *Kein Licht* (2011), trans. Gitta Honegger

What do we know Dr Planck?

> How is this possible? "Either the quantum of action was a fictional quantity, or the derivation of the radiation law was based on a sound physical conception. Here was something entirely new, never before heard of, which seemed called upon to basically revise all our physical thinking."

Max Planck, *Nobel Lecture (1920)*

Song Texts:

The moon looks at me
When I dare to close my eyes
Will it still be there?

Is this curious light
That hits me one at a time
Just an illusion?

Particle or wave
something lacks in our diction
or is it fiction?

Could a flower talk
and change you at a distance
Instantaneously

> Our tones were already produced by Pluto maybe 24,000 years, 40,000 years half-life ago—what do I know, I am shortsighted not farsighted, about now they should gradually come out of us, they should have learned that in the meantime.
>
> Elfriede Jelinek, *Kein Licht* (2011), trans. Gitta Honegger

> The two mental pictures- the one of the particles, the other of the waves - are both incomplete and have only the validity of analogies. Analogies cannot be pushed too far, yet they might be used to describe things for which our language has no words.
>
> So it must be right! The second tone sounded much louder than the first, putting it mildly, it still sounded right, but after that I heard nothing anymore, nothing at all. Only the two. Did they get entangled, or could they have even been devoured? Were they put into a superposition state, even if just for a few dozen milliseconds? Does the state of my tone stand firm in the air? Firm enough for you to pick it up?
>
> Wermer Heisenberg, *The Physical Principles of the Quantum Theory (1949)*

MOVEMENT FOUR: From Atoms to Dark Matter

> At any rate, no matter how much we bow, what is coming is exactly: nothing. We are the consequence of a sequence... of a sequence... of a sequence. There will be no more sequels. Nothing to be continued. And after us nothing left to sequence either.
>
> Elfriede Jelinek, *Kein Licht* (2011), trans. Gitta Honegger

What do we know Lucretius?

> “Everything is made of atoms.
> as seeds of things
> By innate motion chanced to clash and cling-”
>
> Lucretius: *On the Nature of Things* (first-century BC)

That is the key hypothesis.

After they'd been in many a manner driven
Together at random, without design-In vain.

> Everything that animals do, atoms do.
>
> Richard Feynman, *The Feynman Lectures on Physics* (1961)

What do we know Dr. Feynman?

> Trees are primarily made of air. When they are burned, they go back to air, and in that flaming heat is released the flaming heat of the Sun which was bound in to convert the air into tree. And in the ash is the small remnant of the part which did not come from air, that came from the solid earth, instead.
>
> Richard Feynman, *What is Science?* (1969)

What do we know Dr Rubin?

> I live and work with three basic assumptions,
>
> 1. There is no problem in science that can be solved by a man that cannot be solved by a woman.
> 2. Worldwide, half of all brains are in women.
> 3. We all need permission to do science, but, for reasons that are deeply ingrained in history, this permission is more often given to men than to women.
>
> Vera Rubin*, Bright Galaxies, Dark Matters (1996)*

How the stars move tells us that most matter in the universe is dark. When we see stars in the sky, we're only seeing five or ten percent of the matter that is in the universe.

We have peered into a new world and have seen that it is more mysterious and more complex than we had imagined. Still more mysteries of the universe remain hidden. Their discovery awaits the adventurous scientists of the future. I like it this way-

Finding our way through the labyrinth.

Song Text and Translation:

ARBOL CUENTA	A TREE TELLS
Luis Pescetti, lyrics	Translated Alberto Rojo
Yo aprendí a guardar	I learned to keep
el Sol en mí.	The sun in me.
Soy aire que ha viajado	I am air that has traveled
un grano de sal robado.	A grain of stolen salt.
Soy una nube verde	I am a green cloud
de viento atrapado.	of trapped wind.
Yo aprendí a guardar	I learned to keep
el Sol en mí.	The sun in me.
Yo creo en la luz	I believe in light
y creo en la salvación	and I believe in salvation
del aire lleno de barcos	of the air full of boats
que vienen llenos de Sol.	that come full of sun.
	Give back the sun

Devuélvase
el Sol al Sol,
esa es la ley del calor.
Eterno:
sólo tu aliento
mi silbido y lo que siento.

Cuando el viento entre
mis ramas va
veo que se sorprende
de ser aire en tierra extraña
convertido en madera.
hasta mañana.

Y si el fuego desata
el aire al fin,
quedará el recorrido:
barcos, cunas, guitarras,
el racimo de tantos
hechos que hicimos.

back to the sun,
That is the law of heat.
Eternal:
just your breath
My whistle and what I feel.

When the air goes
in between my branches
I see that he is surprised
of being wind in a strange land
turned into wood
until tomorrow.

And if the fire unleashes
the air at last,
The tour will remain:
boats, cribs, guitars,
the bunch of so many
facts we did