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Publication Date

2014

Peer reviewed|Thesis/dissertation

UNIVERSITY OF CALIFORNIA

Los Angeles

The Bounding Line:
Rhythm, Meter, and the Performance
of Aaron Copland's *Short Symphony*

A dissertation submitted in partial satisfaction of the
Requirements for the degree of Doctor of Musical Arts
in Music

by

Ryan Keith Dudenbostel

2014

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2014

ABSTRACT OF THE DISSERTATION

The Bounding Line:
Rhythm, Meter, and the Performance
of Aaron Copland's *Short Symphony*

by

Ryan Keith Dudenbostel

Doctor of Musical Arts

in Music

University of California, Los Angeles, 2014

Professor Neal Stulberg, Chair

Aaron Copland's *Short Symphony* remains among the least performed of his works, this despite the fact that the composer considered it among his finest. This dissertation explores the work's history and reception, issues surrounding Copland's notation of meter and rhythm, and his approaches to metric notation. Freely adapting an analytical process developed by Lerdahl and Jackendoff in their 1983 book *A Generative Theory of Tonal Music*, the author proposes a method of metrical analysis by which Copland's meters can be stripped away, and new meters derived from the metrical weights inherent in the music itself. The result is a newly re-barred version of the *Short Symphony's* outer movements, scores of which are included as an appendix. It is the author's hope that this method can help illuminate other works with similar notational issues.

The dissertation of Ryan Keith Dudenbostel is approved.

Gloria Cheng

David Lefkowitz

Edward Parsons

Robert Winter

Neal Stulberg, Committee Chair

University of California, Los Angeles

2014

To my wife Heather,
for whom my love knows no bounds.

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ACKNOWLEDGEMENTS

Many hands were involved in seeing this project along its journey. My gratitude is due first and foremost to the five members of my committee: to Gloria Cheng for her breathtaking musicianship and deep commitment to understanding the personalities of the composers she champions; to David Lefkowitz for all of his attention, guidance, and rigor in shaping my analytical technique; to Ted Parson for taking time from his duties in the UCLA Law School to offer his ever-thoughtful advice and support; to Robert Winter for his endless enthusiasm and unrelenting pursuit of clarity and specificity in writing about music; and lastly to Neal Stulberg, for teaching me what it means to spell both Musician and Mentor with a capital “M.”

Thanks also to Elizabeth Blaufox at Boosey and Hawkes for so generously sharing her time, expertise, and insight, and to Ray Jackendoff for so kindly offering his words of support. Finally, my deepest gratitude to the musicians of UCLA Philharmonia, who dedicated three weeks to learning and performing the results of this project with great poise and enthusiasm.

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CHAPTER 1

“C’EST IMPOSSIBLE!” – THE LONG STORY OF A SHORT SYMPHONY

In November 1980, just a week shy of his eightieth birthday, Aaron Copland sat down with NPR interviewer Fred Calland to discuss his life. When asked about his Second Symphony, the elderly “dean of American composers” responded:

The *Short Symphony* is a particular favorite of mine among the symphonies, just because it doesn’t get played very much. When it was brand new, I think it was really quite technically difficult for an orchestra. The rhythms were unusual, I think—unconventional, certainly—and not easy to immediately toss off by even a good professional orchestra. So it remains one of my pieces which I think is one of the best things I’ve written, and is probably least played of most of my works.¹

In the decades since that interview, the *Short Symphony*’s situation has improved little. According to the online records of Copland’s publisher Boosey and Hawkes, the work has been performed only 23 times since 1986, the year electronic record-keeping began. Compare this with 46 performances of his early *Symphony for Organ and Orchestra*, or 323 performances of the monumental *Third Symphony*.² If the *Short Symphony* is indeed among the highest of Copland’s accomplishments, why the dearth of performances? Certainly the caliber of orchestral playing has generally improved since Copland’s day, so what about the piece prevents it from achieving wider acceptance? To identify the problem,

¹ Aaron Copland, interview with Fred Calland, *Performance Today*, NPR, Rebroadcast

² “Search Performances,” Boosey and Hawkes, accessed April 21, 2014, <http://bit.ly/1qJsSME>.

and subsequently posit a solution, we have to look at the origins of the work and its early reception.

Absolute Music: Copland, Chávez, and the *Short Symphony*

For Copland, the Depression years marked a break from his dramatic, jazz-influenced early style in favor of a more modern, austere sound, characterized by intricate rhythms, transparent textures, and spiky dissonances.

In *Composer from Brooklyn: An Autobiographical Sketch*, Copland wrote:

In retrospect it seems to me that the [*Symphonic Ode* (1929)] marks the end of a certain period in my development as a composer. The works that follow it are no longer so grandly conceived. The *Piano Variations* (1930), the *Short Symphony* (1933), the *Statements* for orchestra (1935) are more spare in sonority, more lean in texture. They are still comparatively difficult to perform and difficult for an audience to comprehend.³

Central to this middle period in Copland's career—prior to his best known populist compositions (*Appalachian Spring*, *Rodeo*, etc.)—is the *Short Symphony*, a 15-minute work in three continuous movements scored for triple woodwinds (including the heckelphone, a rare instrument in the oboe family, sounding an octave lower than its familiar cousin), four horns, two trumpets, piano and strings. The absence of low brass and percussion gives the piece an almost classical air, and the predominance of woodwind colors recalls Stravinsky's wind-centric works of the early 1920s.

In his autobiography, co-authored with Vivian Perlis, Copland wrote:

³ Copland, Aaron, *Aaron Copland: A Reader: Selected Writings 1923-1972*, ed. Richard Kostelanetz (New York: Routledge, 2004), xxvi.

...the *Short Symphony* was written at intervals between 1931 and 1933 in a variety of places from Morocco to Mexico. It is a bare fifteen minutes in length, but as was the case with the [*Piano*] *Variations*, those minutes are concentrated in meaning. If I expended a great deal of time and effort on the *Short Symphony*, it was because I was determined to write as perfected a piece as I possibly could. I had briefly considered naming the piece (at [Carlos] Chávez' suggestion) 'The Bounding Line' until another friend (I no longer recall who) wisely advised against it, pointing out that 'bounding' seemed more like 'boundary' than the 'bounce' I had in mind.⁴

The work's connection with the Mexican composer and conductor Carlos Chávez (1899-1978) is of no small significance. Copland was among Chávez's most loyal American supporters, and the two maintained a close friendship for decades. Not only did Chávez furnish the *Short Symphony* with its fanciful nickname, he was for a decade the only conductor to perform the work. But more than that, he served as a major influence for Copland in the early 1930s. In a 1927 tribute to Chávez, written for Henry Cowell's compilation *American Composers on American Music*, Copland praised Chávez's music for its freshness and objectivity:

Carlos Chávez is one of the best examples I know of a thoroughly contemporary composer. Without consciously attempting to be "modern," his music indubitably succeeds in belonging to our own age. This is so not merely because he can on occasion contrive intricate rhythms, or because he prefers linear to vertical writing, or because he composes ballets rather than operas. These things alone do not constitute modern music. But Chávez is essentially of our own day because he uses his composer's gift for the expression of objective beauty of universal significance rather than as a mere means of self-expression. Composing to him is a natural function, like eating or sleeping. His music is not a substitute for living but a manifestation of life. It exemplifies the complete overthrow of nineteenth-century Germanic ideals which tyrannized over music for more than a hundred years. It propounds no problems, no metaphysics. Chávez' music is extraordinarily healthy; it is clear and clean-sounding,

⁴ Aaron Copland and Vivian Perlis, *Copland: 1900 through 1942* (New York: St. Martin's Griffin, 1999), 208-209.

without shadows or softness. Here is absolute music if ever there was any.⁵

In praising his Mexican counterpart, Copland also reveals his own artistic values and aspirations at that time. Descriptors such as “healthy,” “clear,” and “clean-sounding” are commonly attributed to Copland’s music, and are never more applicable than during this “lean” period of the early 1930s. Beyond aesthetic principles, a comparison of contemporary works by the two composers shows marked similarities in rhythm, texture, and timbre, particularly Chávez’s *Sinfonia de Antígona* (1933)—featuring an expanded woodwind section much like Copland’s in the *Short Symphony*—and *Sinfonia india* (1935-36). For the interpreter of Copland’s middle-period music, his comments on Chávez provide deep insight.

Copland labored on the *Short Symphony* on and off throughout 1931 and 1932, with much of that time spent in Mexico, a country for which he felt a deep affection. In a November 16, 1932 letter to the (then 19-year-old) composer and orchestrator Henry Brant, Copland wrote:

My Mexican trip has been all I could have hoped for and more. I can’t rave too much about the country itself—nor the populace, for that matter. The first two months I spent in Mexico City—now I have a lovely house in the country where conditions for work are ideal. But don’t think I’ve finished a whole batch of new works, as you would have done. No, I’m still turning out my 1932 opus and I’ll consider myself lucky if I come home with it completely finished. At any rate I have two movements of it done and orchestrated and it’s the third I’m working on now. I’m using an orchestra with no trombones or tuba and only 2 trumpets. It should be

⁵ Henry Cowell, ed., *American Composers on American Music; A Symposium* (New York: F. Ungar, 1962), 102-103.

interesting to see what that gives. I still haven't a name for it, and I begin to despair of getting a really satisfactory one.⁶

A year later, the Symphony was finished, and slated to be performed in the first half of 1934 by the Boston Symphony under Serge Koussevitzky, a life-long supporter of the young composer. Koussevitzky had given one of the first performances of Copland's *Symphony for Organ and Orchestra*—with the composer's teacher Nadia Boulanger as soloist—a decade earlier; he would also premiere the *Third Symphony* in 1946. Chávez, meanwhile, had committed to a performance in Mexico in November of 1934. On December 16, 1933, Copland wrote Chavez from New York:

The 'Bounding Line' as you call it—its [sic] now entitled 'Short Symphony'—is supposed to be played here by Koussie during the second part of the season. I have a second copy of the score which you may have when you come here. If you don't come I will send it to you. I hope you will like the last movement of the work. You know how pleased it will make me to have it played in Mexico.⁷

However, Koussevitzky's 1934 Boston premiere of the *Short Symphony* never materialized, due to the work's difficulty. Writing in October, 1934, to Chávez, Copland lamented that "the performance of the work which Koussevitzky was to have done last season was postponed because of what he told me was the extreme difficulty of the work. He expects to do it here this season, but as yet, it has never been played."⁸ Shaken by the postponement, he adds, "are you sure you can prepare the performance in so short a time?"

⁶ Aaron Copland, *The Selected Correspondence of Aaron Copland*, ed. Elizabeth B. Crist and Wayne Shirley (New Haven: Yale University Press, 2006), 99-100.

⁷ *Ibid.*, 103-104.

⁸ *Ibid.*, 107.

Otherwise perhaps it would be better to wait—as I am afraid that with this work a shaky performance would give an incoherent impression to the public. Of course, I leave it absolutely in your hands to do as you like.”⁹

Chávez kept to his word, and conducted the world premiere of the *Short Symphony* on November 23, 1934 with the Orquesta Sinfónica de México in Mexico City. From the conductor’s account to Copland, the performance was a resounding success:

...We had ten rehearsals...the orchestra men were at first skeptical but by the third rehearsal or so they had a real genuine and growing interest.... It is impossible to tell you in a few words how much I enjoy the Little Symphony: I already begin to write an essay on it.... The way each and every note comes out from the other as the *only* natural and logic possible one, is simply unprecedented in the whole history of music.... There has been very much talk about music in which everything is essential, nothing superfluous, but, as far as I know, exists, yes, *the talk* about such music, but not the music itself. The Little Symphony is the first realization I know of that, and yet, the human content, the ironic expression, is purely emotional....¹⁰

Copland responded at the end of December: “how I wish I could have heard it. And what a strange feeling it gives me to think that you have heard a piece of mine which I have not yet heard....”¹¹ As it happened, Copland would not hear his *Short Symphony* for another ten years. One week before the Mexico City premiere, Koussevitzky canceled all plans to perform the work in Boston. Writing about the incident to the composer and novelist Paul Bowles on December 13, 1934, Copland explained, “Koussie turned it down after a year and

⁹ Ibid.

¹⁰ Copland and Perlis, *Copland: 1900 through 1942*, 209.

¹¹ Ibid.

a half. I asked him 'is it too difficult?' 'Non,' says he, 'c'est n'est pas difficile, c'est impossible!'"¹²

The following year, signs of interest from Leopold Stokowski gave Copland hope that his work would finally have its day in the U.S. In a letter to Chávez from August, 1935, Copland mentions in an aside: "(By the way, Stokowski has the 'Short Symphony' now and I hope he will perform it this season. I want to hear it enfin!)"¹³ However, as with Koussevitzky, Stokowski delayed programming the work, again citing its difficulty of execution.

Discouraged, Copland turned to other projects, namely the *Statements for Orchestra* (1935) and the immensely successful *El salón México* (1932-1936). In 1937, he returned to the *Short Symphony*, crafting a substantially re-barred arrangement for chamber forces. Writing later with Perlis, Copland recalled that, "partly due to the fact that the piece did not get a performance in the States, I prepared the *Sextet*, an arrangement for clarinet, string quartet, and piano in 1937 while summering in Mexico. The *Sextet* was first performed in New York at Town Hall in 1939 by a Juilliard graduate ensemble. It was announced for the 1941 ISCM Festival and a CBS radio broadcast in connection with it but was abandoned due to the difficulty of the piece and the number of rehearsals required."¹⁴ (I discuss the notational differences between the *Short Symphony* and the *Sextet* later in this chapter.)

¹² Copland, *A Copland Reader*, 355.

¹³ Copland, *The Selected Correspondence of Aaron Copland*, 112.

¹⁴ Copland and Perlis, *Copland: 1900 through 1942*, 209-212.

Copland would not have the opportunity to hear his *Short Symphony* until 1944. On October 23, 1943, Copland wrote excitedly to Chávez, “I had a letter from Stokie today—he has programed [sic] the US premiere of the Short Symphony for Jan 9th with the NBC Symphony. After ten years! Well, one must have patience if one is a composer.”¹⁵ The premiere would actually be a radio broadcast from the legendary 8-H studio in the NBC’s RCA Building. Copland recalled: “Even then Stokowski told me, ‘It is still a difficult work to perform, and even more so to interpret.’”¹⁶

The challenges the *Short Symphony* presented to Stokowski and the NBC Symphony proved substantial indeed. The broadcast, a recording of which has been released on CD by the Guild Historical Label,¹⁷ was not successful. The recording reveals a slow, extremely shaky performance replete with errors. Critical reviews at the time were mixed, but most found fault with the piece rather than with the performance. It is important to remember that by the early 1940s, Copland had become well known for his more accessible, populist works on “American” themes, including the *Outdoor Overture* (1938), the *Fanfare for the Common Man* (1942, later recycled in his *Third Symphony*), and the ballets *Billy the Kid* (1938) and *Rodeo* (1942). Later in 1944 would come the premiere of *Appalachian Spring*, Copland’s collaboration with choreographer Martha Graham that would win him the 1945 Pulitzer Prize in music. To the listener accustomed to the style of these later works, an offering as hard-edged as the *Short Symphony*

¹⁵ Copland, *The Selected Correspondence of Aaron Copland*, 158.

¹⁶ Copland and Perlis, *Copland: 1900 through 1942*, 212.

¹⁷ Aaron Copland, *Short Symphony*, with the NBC Symphony, conducted by Leopold Stokowski, recorded January 9, 1944, Guild Historical, GHCD2347, 2009, compact disc.

must have come as quite a shock. In his review for the *New York Times*, Noel Strauss wrote of the work:

It was composed between the years 1931 and 1933, which accounts for the complexities and artifice of the score. In more recent years Mr. Copland has chosen to write in a much simpler and more direct manner, and always he has proved at his best when treating subjects of a programmatic nature. Abstract music, even today, does not seem to offer him the best opportunity to express himself convincingly. The symphony, being both abstract and in the less effective early style, cannot be reckoned among its composer's important contributions to the literature...

There is little to be said about the work, since it is all so manufactured and uncommunicative that it never gets anywhere in particular and leaves the impression of futile fragmentariness in general.

At one point the 'cello starts off a passage, taken up by the viola and gradually by other instruments, where it seemed for a moment as if the music was finally going to have something effectual to impart. But this passage turned out to be merely the transition to the finale and came to little, like the rest.

Doubtless the symphony meant something definite to the composer when he wrote it, but it was completely cryptic and enigmatic in its meanings at this performance. Despite its complexities, Mr. Stokowski led it with apparent ease. But, unless one had the score before him, it was next to impossible to tell how many of the seemingly false entrances were actually correct and intentional in the cacophonous maze of intricacies. The work, however, was warmly received.¹⁸

Arthur Berger, who would go on to write a biography on Copland, was more generous, writing in the *New York Sun* that many of the performance's dissonances were "accidentally interpolated," and said of the work that it "...confines itself to the altitude of the most relevant and precise terms."¹⁹

Following Stokowski's radio premiere, the *Short Symphony* fell again into

¹⁸ Noel Straus, "Copland Symphony Has Premiere Here," *New York Times*, January 10, 1944, <http://nyti.ms/1hSbUIZ>.

¹⁹ Jennifer DeLapp, "Speaking to Whom? Modernism, Middlebrow and Copland's *Short Symphony*," in *Copland Connotations: Studies and Interviews*, ed. Peter Dickinson (Woodbridge: The Boydell Press, 2002), 93.

obscurity. While preparing the score for publication in 1950, Copland wrote to Leonard Bernstein, “[I] have just finished copying the Short Symphony on thin sheets. Now you can have a copy for yourself. Doesn’t a ‘first concert perf. in U.S.A.’ tempt you?”²⁰ In January, 1957 Bernstein programmed the work on two concerts with the New York Philharmonic. Since then, it has enjoyed only a handful of performances, mostly at the hands of a small group of conductors, including Copland himself, along with Bernstein, Michael Tilson Thomas, and Dennis Russell Davies.

In addition to the *Sextet*, the *Short Symphony* also exists in an arrangement—retaining Copland’s original barring—for chamber orchestra, re-orchestrated by the last of the above-mentioned conductors. In the liner notes to his 1992 recording of this version with the Orchestra of St. Luke’s, Davies writes:

After having conducted several performances of the Short Symphony in New York, Boston, and Berlin, and knowing of Aaron’s frustration at the lack of performances of what he felt was one of his best works, I proposed to him that I rescore the work for a chamber orchestra, specifically the Saint Paul Chamber Orchestra, where as Music Director from 1972-1980 I was in a position to maintain the work as a repertory piece. Aaron agreed, and I worked through the winter of ‘78-’79 in order to have it ready for a tour in the spring of ‘79 with the SPCO devoted to Copland’s music, with Aaron and I sharing the program as conductors.

Although I have performed the Sextet version as a pianist, my recording is based solely on the original version, using my years of experience with the SPCO. I used roughly half of the original wind section: 1 flute, 2 oboes with the second doubling English horn, 1 clarinet who doubles on bass clarinet, 2 bassoons, 2 horns, 1 trumpet, piano, and chamber strings of 10 violins, 3 violas, 3 cellos, and 1 bass. Aaron seemed very pleased with the results, confessing to me that only in the third movement could he hear differences from the original.²¹

²⁰ Copland, *The Selected Correspondence of Aaron Copland*, 201.

²¹ Aaron Copland, *Short Symphony*, with the Orchestra of St. Luke’s, conducted by Dennis Russell Davies. MusicMasters Classics 01612-67101-2, 1992, compact disc. Liner notes.

In addition to the recording with the Orchestra of St. Luke's, this version has also been recorded by the St. Paul Chamber Orchestra (with Davies) and the Orpheus Chamber Orchestra (conductor-less). Nonetheless, the *Short Symphony*, in whatever guise, remains among the least performed of Copland's major works. Writing near the end of his life, the composer said, "I think of the *Short Symphony* as one of 'my neglected children' and am perhaps more fond of these works *because* they receive so much less attention... Even today, with orchestra players capable of complicated rhythms and harmonies, the *Short Symphony* and the *Sextet* are not easy for performers... One would think that most of the terrors of both versions would have worn off by now for players as well as listeners. One learns to have patience."²²

Bounding Lines: The Challenges of the *Short Symphony*

Given all that has been said about the *Short Symphony* by Copland, Chávez, Koussevitzky, and others, along with the work's sparse performance history, why has this music remained so unapproachable? And why have the difficulties remained undiminished over time? As in almost all of Copland's music, the frequent employment of large melodic and harmonic intervals—a major characteristic of his "wide open" sound—creates considerable challenges for performers, particularly string players, who are forced to negotiate awkward string-crossings in order to manage the leaps. Additionally, and particularly in the *Short Symphony*, Copland favors a pointillistic style of orchestration, in which

²² Copland and Perlis, *Copland: 1900 through 1942*, 212.

the notes of a motive or phrase are divided among several different instruments, so that each player presents only a few notes at a time. The first page of the Symphony provides an excellent example of these two issues (see Fig. 1):

To Carlos Chavez
SHORT SYMPHONY
(No 2)

1

AARON COPLAND

Tempo ♩ : 144 (incisivo) I

Piccolo

Flauti I. II

Oboi I. II

Heckelphon
(sounds an octave lower)

Clarineti in Sib
I
II

Clarinetto Basso
in Sib

Fagotti I. II

Contrafagotto

Corni in Fa
I. II
III. IV

Trombe I. II
in Do

Pianoforte

Violini I
div.

Violini II

Viole
div.

Violoncelli
div.

Contrabassi

Tempo ♩ : 144 (incisivo)

pizz. *arco* *pizz.* *arco*

p *sfz* *mf*

cuius *sfz*

pizz. *arco* *pizz.* *arco*

p *mf* *mf* *f*

pizz. *arco* *pizz.* *arco*

p *mf* *mf* *f*

pizz. *arco* *pizz.* *arco*

p *mf* *mf* *f*

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Fig. 1. First page of Copland's *Short Symphony*

Here the wide melodic intervals in the woodwinds and piano are punctuated by pointillistic accents in the strings and horn. Despite the complexity of the scoring, the piano reduction of the same passage reveals that much of the musical material is in octaves, with some simple two-part writing in the second bar (see Fig. 2).

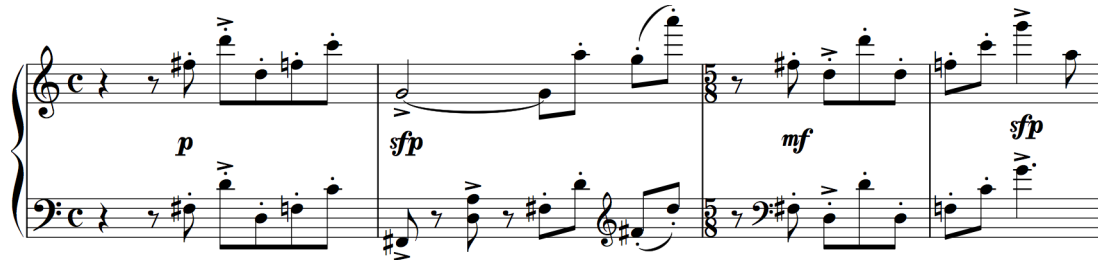


Fig. 2. First page of Copland's *Short Symphony* (piano reduction)

Both the *Sextet* and Davies's arrangement mitigate some of the orchestrational difficulties by using fewer instruments, thereby giving each player more material to play and, consequently, a more cohesive through-line of the piece.

The challenge that neither addresses (and, for the executant, the principal challenge of the entire work) is that of the rhythm, or to be more precise, the notational relationship between rhythm and meter. Copland's rhythms frequently alternate between irregular groupings of two and three eighth-notes, a practice initiated by Stravinsky in the first decade of the twentieth century, and taken up by many composers in the following decades. However, Copland's meters reflect this irregularity inconsistently, if at all. The result is a music that looks nothing like the way it sounds. Take for example the passage five measures after R. 30 in the third movement (see Fig. 3):

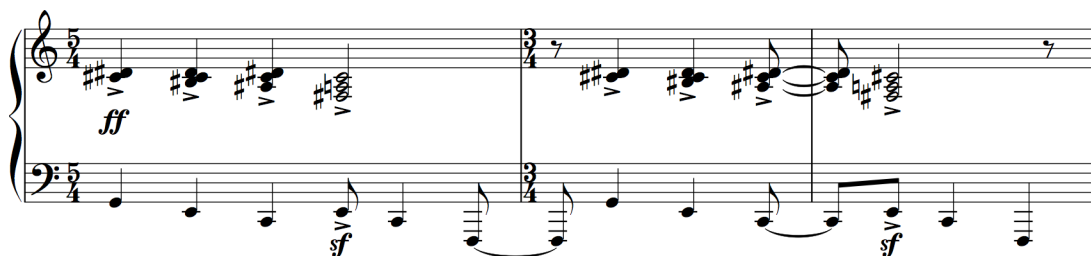


Fig. 3. *Short Symphony*, third movement, four measures after Rehearsal No. 30

In this passage Copland repeats the same gesture twice but in completely different metric contexts. In the first instance, almost every onset coincides with a beat. In the second, the opposite is true: only the two final bass notes come on the beat. This renders the passage extremely difficult to execute, particularly the second *sforzando* marking, which will likely sound one note late (on the C), since that note falls on the beat. In the *Sextet* (see Fig. 4) the same passage is even less intelligible:

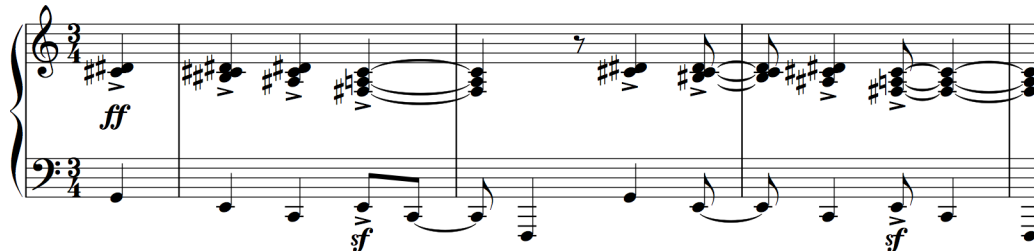


Fig. 4. Parallel passage in the *Sextet*

From the notation in Fig. 4, it is difficult to discern that these are two repeated gestures at all. While the pattern of coincidence with the beat parallels the *Short Symphony*, here the placement of the first instance as an upbeat, and the second as a syncopated attack in the middle of a bar, makes it very difficult to visually relate the two.

When performed, however, the relationship between these gestures is very clear. Moreover, the strength of the parallel accent patterns eliminates any

sense of syncopation as suggested by the notation.²³ What we perceive instead are two identical gestures, each eleven eighth-notes in length (see Fig. 5):

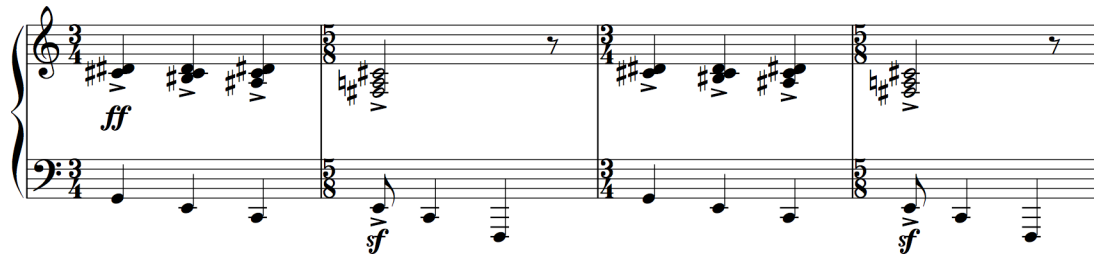


Fig. 5. Passage re-barred as perceived by the listener.

The *Short Symphony* is filled with countless examples of notational issues similar to that described above. While Copland's rhythmic groupings are made clear by accents, beaming, and orchestration, the written meter is often not only unsupportive of these groupings, but actually undermines them. What results is a metric notation that is exceedingly difficult to execute; notes that sound like downbeats are written off the beat, and notes that appear at the beginning of a bar sound like weak beats. While these notational conflicts might be manageable for a soloist, their combination with Copland's pointillistic style of orchestration tests the limits of even the most advanced ensemble. The composer's reasons for designing his meters in this fashion are the subject of the next chapter, but these examples suggest that a notational conflict between rhythm and meter stands as the greatest barrier to the *Short Symphony* having become a repertoire work.

²³ See Chapter 3 for discussion of syncopation and its relationship to rhythmic patterns of this type.

CHAPTER 2

“IGNORE THE BAR-LINE” – COPLAND AND METER

Copland biographer Howard Pollack has suggested that the composer’s metrical choices reflect his socialist views and the “democratic and anti-authoritarian ethos underpinning [the *Short Symphony*].”¹ By maintaining simple meters independent of the rhythm (or polyrhythm), no single rhythmic voice is given preference over another, leaving all the various musical materials “free and equal.” Pollock writes, “such techniques would seem to reflect Copland’s personality and ideals, of the way, for instance, while working on the *Short Symphony*, he hosted in his apartment meetings of a group of younger composers called, ‘The Young Composers.’”² Quoting Copland’s colleagues Irving Fine, Israel Citkowitz, and Lehman Engel, Pollock continues, “although the participants recalled that ‘there was not a lot of brotherly and sisterly love’ at these meetings... ‘[Copland sat] with an air of serene impartiality that [made] everyone else seem like a youthful barbarian...’ ‘Aaron listened, giggled, was interested, never interfered.’”³ In other words, he was content to take a more neutral stance—both socially and musically—allowing events to play out on their own.

While Copland’s social and political views may indeed have impacted the way he approached his music, an examination of the composer’s own writings

¹ Howard Pollack, “Aaron Copland’s *Short Symphony* and the Challenge to Human Supervision and Control in Music,” *Journal of New Music Research* 31, no. 3: 209.

² Ibid.

³ Howard Pollack, *Aaron Copland: The Life and Work of an Uncommon Man* (New York: Henry Holt, 1989), 186-187.

on the notation of rhythm and meter reveals his outlook was more pragmatic, influenced by years of challenging experiences with orchestras and conductors. Chief among these influences was Koussevitzky, a great champion of contemporary music—and of Copland in particular—who nonetheless struggled with the rhythmic innovations in the new music of his time.

Ten years before Copland began work on the *Short Symphony*, Koussevitzky—then based in Paris—undertook to conduct Stravinsky's *Le Sacre du printemps*, still a very new piece in 1921. His assistant and personal secretary at the time was the 25-year-old pianist, conductor, and composer Nicolas Slonimsky, who would become one of the twentieth century's most prominent musicologists and music bibliographers. In his autobiography, Slonimsky recalls:

To my dismay, I realized that Koussevitzky was incapable of coping with [the constantly changing meters in *Le Sacre*]. When precise metrical changes occurred, as from 3/16 to 2/8, he kept slowing down the sixteenth notes and accelerating the eighth notes, with the result that the distinct binary ratios dissolved into formless neutral triplets. It occurred to me that the situation could be remedied by combining adjacent bars so as to reduce the basic beat to an eighth note; for instance, the succession of bars of 3/16, 3/8, 1/16, 4/8 could be integrated into a single bar of 4/4. To be sure, the downbeats would be dislocated at several points, but Stravinsky had numerous syncopated accents anyway, so the basic rhythm would be preserved...

I showed Koussevitzky how all those metrical fractions could be connected up without sacrificing a single beat, but he dismissed the idea out of hand. "We can't change Stravinsky's rhythm!" he said. Koussevitzky also had trouble in passages of 5/8 in a relatively moderate time, particularly when 5/8 changed to 6/8—or to 9/8, as happens in Stravinsky's score. He had a tendency to stretch out the last beat in 5/8, counting "one, two three, four, five, uh." This "uh" constituted the sixth beat, reducing Stravinsky's spasmodic rhythms to the regular heartbeat. When I pointed it out to him, he became quite upset. It was just a *luftpause*, he said. The insertion of an "air pause" reduced the passage to a nice waltz time, making it very comfortable to play for the violin section, which bore the brunt of the syncopation, but wrecking Stravinsky's asymmetric rhythms...

Rehearsals of *Le Sacre* went badly. Koussevitzky made the expected mistakes and kept adding those obnoxious *luftpausen*. He was sullen as we drove back to his suburban villa in a chauffeured limousine. After lunch, he suddenly said: "Show me that arrangement you made in the score." I eagerly explained to him my idea of summation of adjacent bars. He looked at the music with glazed eyes. "I can't understand a thing you say," he remarked. "Sit down and put bar lines in blue pencil in the score." I withdrew to the workroom and at the end of the afternoon had the tricky meter all nicely re-barrred in long lines in blue, traced from the top to the bottom of the huge score. "You have a genius for mathematics," Koussevitzky said to me after he looked over my handiwork. The mathematical genius involved no more than the ability to add fractions, but to Koussevitzky it was high science.⁴

Koussevitzky gifted his score to *Le Sacre du printemps*, including Slonimsky's rebarring, to Leonard Bernstein in the early 1950s; it subsequently came into the possession of the New York Philharmonic, and has been made available online via the New York Philharmonic Digital Archives.⁵ An examination of the ballet's concluding "Danse sacrale" reveals how Slonimsky was able to combine Stravinsky's constantly shifting time signatures (see Fig. 1) to create a metric pattern largely in 3/8 (see Fig. 2).

⁴ Nicholas Slonimsky, *Perfect Pitch: An Autobiography*, ed. Electra Slonimsky Yourke (New York: Schirmer Trade Books, 2002), 69-70.

⁵ <http://archives.nyphil.org/>



Fig. 1. “Danse sacrée” from Stravinsky’s *Le Sacre du printemps* (piano reduction)



Fig. 2. “Danse sacrée” as re-barréd by Nicolas Slonimsky

What is lost in Slonimsky’s re-barring is the ragged, uneven throbbing of Stravinsky’s rhythms, clearly indicated by the composer’s original meters. However, in his version of the “Danse,” Slonimsky was able to transform what was—for Koussevitzky—an unperformable passage into something not only

practicable, but surprisingly easy. The conductor was thrilled with the results, and performed *Le Sacre* in this arrangement throughout his career, as did his young protégé Bernstein. Slonimsky writes:

The parts of *Le Sacre du printemps* that Koussevitzky used in Paris and later in Boston were re-barréd according to my arrangement, and Koussevitzky used it in all his performances of the work...

In the natural course of musical events, Leonard Bernstein, the instantaneous magician of the art of conducting, was engaged as a guest conductor with the Boston Symphony Orchestra, with *Le Sacre* on the program. No sooner did he begin the "Danse sacrée" than he was confronted with my metrical rearrangement. He quickly collated the score with the orchestral parts and proceeded to beat time according to my simplified Koussevitzky version. In a note he sent me in April 1984, on the occasion of my ninetieth birthday, he recalled the occasion.

"Dear Nicolas [he wrote], Every time I conduct *Le Sacre*, as I did most recently two weeks ago (and always from Koussy's own score, with your re-barring), I admire and revere and honor you as I did the very first time. Bless you, and more power to you."⁶

Copland and Koussevitzky met in 1923 at the Paris home of Nadia Boulanger.⁷ Koussevitzky was immediately taken with the young composer, and promised to program his works with the Boston Symphony, whose leadership he assumed the following year. True to his word, he gave the Boston premiere of Copland's *Organ Symphony* (1924) in his first season, with Boulanger as soloist. Among the many Copland works that Koussevitzky would champion during his career was the *Symphonic Ode* (1929), commissioned to celebrate the 50th anniversary of the Boston Symphony. Like *Le Sacre*, Copland's *Ode* was full of uneven groupings of duple and compound beats, an element of Copland's

⁶ Slonimsky, *Perfect Pitch: An Autobiography*, 70.

⁷ Howard Pollack, *Aaron Copland: The Life and Work of an Uncommon Man*, 121.

compositional language that would peak in the *Short Symphony*. Both orchestra and conductor found managing the complex rhythms prohibitively difficult. In the 1980s, Copland recalled:

After the first rehearsal, Koussevitzky informed me that the men could not play the *Ode* as written. I laughed at the notion that these were difficult rhythms and told Koussevitzky that there was nothing to it. He replied: "Come to Boston and take over the rehearsal yourself. For me, the orchestra has been able to play only three bars of the piece in a full hour of rehearsal." I was reluctant to make changes in the score two weeks before the scheduled premiere, so I went to Boston, and Koussevitzky turned a rehearsal over to me.⁸

To his chagrin, Copland fared no better than Koussevitzky in helping the orchestra navigate his intricate rhythms. Remembering his experience with Slonimsky and *Le Sacre*, Koussevitzky suggested that Copland re-bar the more complicated passages into simpler, larger measures. Writing to the composer and critic Israel Citkowitz in May 1930, Copland explained:

I finally heard the 'Ode.' I conducted it myself one morning at a rehearsal [sic] in Boston while K— listened from the auditorium. I only really heard the slow parts, the fast parts were ruined by being played too slow. The end sounded gloriously. It was a revealing experience. The upshot was that I have for all time given up trying to make music look on paper what it actually sounds like. Applied to the *Ode* it means that I must completely rewrite the barring of the fast parts throughout. I'm working on it now and have discovered how much easier certain sections might have been written. For example, one part which originally had 13 changes of time— $3/4$, $7/8$, $5/8$ etc.—is now entirely $4/4$. I never believed it could be done till I tried. So that not a note of the piece will be changed but it will look entirely different on paper.⁹

⁸ Aaron Copland and Vivian Perlis, *Copland: 1900 through 1942* (New York: St. Martin's Griffin, 1999), 208-166.

⁹ Aaron Copland, *The Selected Correspondence of Aaron Copland*, ed. Elizabeth B. Crist and Wayne Shirley (New Haven: Yale University Press, 2006), 75-76.

Copland's statement, "I have for all time given up trying to make music look on paper what it actually sounds like," offers deep insight into the attitudes he brought to the notation of his next orchestral piece, the *Short Symphony*. With the exception of a few homorhythmic passages (particularly in the third movement) that retain a clear, consistent 5/8 or 7/8 grouping, most of the work—and nearly all of the polyrhythmic music—is barred in 4/4, 3/4, or 5/4 meters largely disconnected from the musical activity.¹⁰ This approach is employed to an exaggerated degree in the *Sextet*, where a 3/4 meter dominates throughout.

In 1944, the year the *Short Symphony* was finally given its premiere by the NBC Symphony under Stokowski, Copland published an essay in *Modern Music* further explaining his position on metric notation. Quoting his colleague Walter Piston, he questioned whether meter plays any musical role at all beyond simply marking time:

The overemphasis on the musical significance of the barline and the attempt to make meter and rhythm synonymous should perhaps be laid to the influence of Stravinsky and Bartok. After the *Sacre* our young composers fell under a tyranny of the bar measure quite as strict as that which held sway during the nineteenth century, forgetting that the barline in music is only a convenience for keeping time and that it indicates rhythmic stress only by accident and coincidence.¹¹

Copland does not declare whether he agreed with Piston on this point, but the following discussion suggests that, while Copland believed meter to be musically significant, the difficulties mixed meters present to performers (at least

¹⁰ See Figs. 3 and 4 in Chapter 1 for examples of this metric discontinuity.

¹¹ Aaron Copland, *Copland on Music* (New York: W.W. Norton, 1963), 275.

at the time) necessitated a tempering or compromise in the notation. Presenting a string of notes arranged unevenly into groups of twos and threes (see Fig. 3), he writes:

Theoretically, whichever way the rhythm is notated [in mixed meter or in a single meter with uneven groupings of notes beamed together across the barlines] (always assuming accents have been added), the effect of the ear should be the same.¹²



Fig. 3. Eighth-notes in uneven groupings of twos and threes

That would seem to settle the question. But actually there are two schools of thought in this matter. The younger and more progressive type of interpreter will tell you that, despite its difficulty, he prefers Version 1 [see Fig. 4] to Version 2 [see Fig. 5]. He insists that executants must be taught to play unequal rhythmic units with the same natural ease that they play a simple ternary rhythm. He claims further that the two versions do not in reality sound precisely the same to the listening ear. A subtle difference will be felt as between one version and the other.¹³

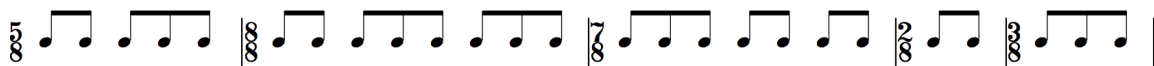


Fig. 4. Metric scheme corresponding to uneven rhythmic groupings

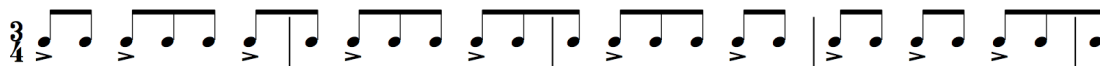


Fig. 5. Uneven rhythmic groupings set against simple rhythmic scheme

While the two notational approaches, if executed with equal accuracy, might result in very similar experiences for the listener, the same is certainly not the case for the performer—as we see with Slonimsky’s re-barring of the “Danse sacrale” and Copland’s own *Symphonic Ode*. Copland continues:

¹² Ibid., 275-276.

¹³ Ibid.

It seems to me true that, from the standpoint of the individual performer who plays without a conductor, both versions should be equally assimilable. The considerable advantage of Version 1 [see Fig. 4] is that it looks the way it sounds. But for the ensemble playing under the baton of a leader, experience has taught me that Version 2 [see Fig. 5] is preferred by the majority of instrumentalists and conductors. It is not always technically easy to ignore the bar-line, as one must in playing Version 2, placing the accents where they are indicated. But once the rhythm is well learned it is easy to reproduce; while Version 1, even when thoroughly rehearsed, is easy to forget...

In my opinion composers would do well to notate their music so that, as far as possible, it looks the way it sounds. If the work is written for solo performer there is usually no need for tampering with the rhythm. If, however, more than one player is involved, and especially in the case of orchestral works, a rearrangement of rhythmic barring may be necessary. The more rhythmically sophisticated conductors will not think so, but performances are more likely to materialize.¹⁴

What Copland suggests is that composers undertake the same task as Nicolas Slonimsky, but *before* their music reaches the hands of performers. In other words, music composed in this fashion is *re-barréd from the outset*. A review of the final short-score sketches of the *Short Symphony*, made available online by the Library of Congress,¹⁵ shows that Copland did exactly this in preparing his score. The sketches reveal pitches and rhythms written with confidence—sometimes even in ink—over which the bar-lines and meters are lightly drawn in colored pencil, often with several erasures. Occasionally there is a lightly penciled preliminary barring which has been subsequently overwritten in blue (see Fig. 6).

¹⁴ Ibid., 276-280.

¹⁵ Library of Congress, "Short symphony [piano sketch]," <http://1.usa.gov/1gxv8CK>.



Fig. 6. *Short Symphony* sketch: third movement opening.

The problems with Copland's pre-emptive approach to notating meter are twofold. First, while music organized in this way might—in theory—be simpler for the executant to *count*, in a work as thinly textured and pointillistic as the

Short Symphony it actually creates the opposite effect: the players (especially those counting rests) cannot reconcile what they *hear* and what the metric notation *suggests* they should be hearing. The rhythmic content of the music is disconnected from the organizing, hierarchical influence of the meter, requiring the performer to, as Copland admits, “ignore the bar-line,” a particularly complex challenge for players accustomed to the metric-rhythmic unity of common-practice music.

More significantly, unlike the situation with Slonimsky’s re-barring of *Le Sacre*, in which Stravinsky’s meters are preserved beneath the new bar-lines, the interpreter of a work like the *Short Symphony* does not have an original text as a reference. Whether what appears to be a downbeat should be emphasized as such, or whether a figure written as a syncopation is meant to be played in that fashion, is anyone’s guess. What was intended as simplification has instead become obfuscation.

Given what we learn from Copland’s writings on metric notation, along with the radical metrical differences between the *Short Symphony* and the *Sextet*, Copland might well have welcomed further experimentation and development in this area. The next chapter explores an alternative method for barring this music, guided by the metric accents built into the rhythms Copland so confidently committed to his manuscript pages, with the hope of approaching the kind of metric-rhythmic unity the composer found so difficult to achieve in his lifetime.

CHAPTER 3

“IT LOOKS THE WAY IT SOUNDS” – A SOLUTION

While Copland’s metric choices in the *Short Symphony* may seem obscure and inconsistent, they were in fact the pragmatic result of years of frustrating experiences with orchestras and conductors. However, in simplifying his meters, Copland rendered his already-challenging rhythms far more difficult to grasp. These are the challenges that prompted Koussevitzky to declare the work “impossible.”¹ Time has scarcely eased these difficulties, despite the fact that since the 1930s, musicians have grown much more comfortable with mixed and asymmetrical meters.

The purpose of this paper, and the newly re-barréd version of the *Short Symphony* it accompanies, is to propose a solution to the notational conflict in the outer movements of this problematic work²—to bring the meter better in line with how the music actually sounds. In a sense, this is the converse of what Slonimsky undertook in re-barring *Le Sacre*, since the *Short Symphony* is, as we have seen from Copland’s writings quoted in the previous chapter, *already re-barréd* from the outset. The task instead is to strip away Copland’s meters and develop a new metric scheme that is rooted in his rhythmic patterns.

Such a task requires an objective process of metrical analysis. Several approaches present themselves, beginning with Grosvenor Cooper and Leonard

¹ Copland, Aaron, *Aaron Copland: A Reader: Selected Writings 1923-1972*, ed. Richard Kostelanetz (New York: Routledge, 2004), 355.

² The *Short Symphony*’s second movement does not share the same metrical issues with its outer neighbors, and is thus omitted from discussion here.

B. Meyer's *The Rhythmic Structure of Music* (1960), which more-or-less conflates meter with rhythm, and Edward T. Cone's *Musical Form and Musical Performance* (1968), which pointedly separates the two. A generation later Fred Lerdahl and Ray Jackendoff's *A Generative Theory of Tonal Music* (1983) took a radically different direction by applying principles of generative linguistics and Gestalt perception. Developed by Noam Chomsky in the 1960s and 1970s, generative linguistics focuses on how humans intuitively combine small parts of speech to generate larger structures, such as phrases and sentences. Similarly, Gestalt perception deals with our innate ability to organize single objects into hierarchical groups. The Gestalt approach to meter and rhythmic groupings was also taken up by James Tenney and Larry Polansky in the early 1980s.

More recent contributions include work by Christopher Hasty, who refined grouping theory by including elements other than pitch and rhythm (timbre, dynamic, register, etc.), and David S. Lefkowitz and Kristin Taavola, who extend the work of Hasty, Tenney, and Polansky into the analysis of twentieth-century music. They posit an analytical method of segmentation (the flip-side of grouping) that addresses grouping issues in polyphonic music—an underdeveloped area in previous research—as well as Gestalt theory's aversion to singular events, which are rare in common-practice music but occur frequently in more contemporary works.

Of the available approaches, I found that of Lerdahl and Jackendoff to offer the greatest flexibility. Not only do they codify their system into sets of readily applicable rules, but the authors separate metric and grouping analysis into completely independent activities. Since this study focuses solely on meter,

the option to set aside grouping analysis streamlined the process (though readers interested in taking this method further would do well to consider the implications of grouping/segmentation as well). Lerdahl and Jackendoff's reliance on rule-sets also made the analytical process modular, allowing the invocation of rules that prove helpful, while setting aside those that do not.

To be sure, Lerdahl and Jackendoff's *Generative Theory of Tonal Music* was designed as a tool for explaining the musical grammar of canonic works, not as a means of creating alternative notation based on said grammar. However, its process of reductive analysis has proven remarkably useful in achieving precisely that. And while Lerdahl and Jackendoff's work focuses primarily on common-practice tonal music, their approach to metric analysis proves ideally suited to Copland, a composer whose music, while not functionally tonal in the conventional sense, is nonetheless grounded in tonal structures. According to co-author Jackendoff (presently on faculty at Tufts University), this is a novel application of his and Lerdahl's method.³ Although I have not tested it outside the bounds of the present research, I believe this process would prove equally applicable to similarly problematic works.

The Analytical Process: Metric Reduction and Well-Formedness Rules

We can summarize this approach by using a brief excerpt from the opening of the *Short Symphony*. As will quickly become apparent, no step in the process hinges purely on the results of this method; rather, every decision

³ In a March 3, 2014 email to the author, Ray Jackendoff writes, "This is a very interesting project you're engaged in. It's terrific that you're finding GTTM of use here! I've never undertaken a project like yours, but I have used GTTM to help me think about the metrics of Renaissance music, which often comes out like polyphonic Stravinsky under this treatment."

involves a degree of compromise between analysis, intuition, and practicality. (Appendix A provides a complete metrical analysis of both the first and third movements.)

We begin with the music in its original form, here reduced for convenience to two staves (see Fig. 1).

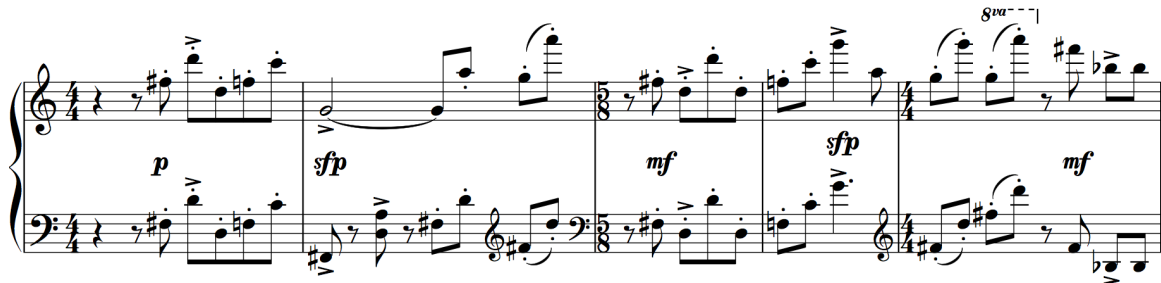


Fig. 1. Opening measures of Copland's *Short Symphony* (original notation)

The first stage is to create a metric reduction by stripping away the time signatures, bar-lines, and beams between notes. The authors explain, "bars and beams are notational devices that convey preferred metrical structure to the performer, but they are not present in the musical surface (the sequence of pitches and durations)."⁴ As we have seen in the previous chapter, Copland's metric designs are often disconnected from his musical materials, so in removing these notational devices, we are left with the raw musical content: the individual pitches in their original rhythmic values, along with articulation marks, slurs, and dynamics (see Fig. 2).

⁴ Fred Lerdahl and Ray Jackendoff, *A Generative Theory of Tonal Music* (Cambridge: The MIT Press, 1983), 74.



Fig. 2. Opening measures of Copland's *Short Symphony* (metric reduction)

The metric reduction serves as the foundation on which the analysis is constructed. Lerdahl and Jackendoff list two sets of rules—one strict, the other flexible—to be applied during the analytical process. I will first describe these rules and their relationship to one another, then turn back to our analysis to put them into practical application. The first of the rule sets are the four Metrical Well-Formedness Rules (MWFR):

*MWFR 1. Every attack point must be associated with a beat at the smallest metrical level present at that point in the piece.*⁵

This first rule lays out the base level of the analysis: after identifying the smallest metrical value at play (here the eighth-note), we lay out a grid of continuous beats of that value (see Fig. 3).⁶ Lerdahl and Jackendoff define beats as durationless points spaced at evenly over time. The interval between beats is labeled the *time-span*.⁷ While beats at this smallest level are indeed spaced evenly, the same is not necessarily true of beats at higher metrical levels.

⁵ Ibid., 72.

⁶ The authors use hierarchical arrays of dots to indicate beats in each of the metrical layers. Note values are used here instead for illustrative purposes. Additionally, while note values shorter than that of the eighth-note appear frequently throughout both outer movements of the *Short Symphony*, preliminary analysis revealed that analysis at these smaller metric levels consistently reinforced the strength of the eighth-note pulse. They have been omitted here and in Appendix A, for the sake of brevity and clarity of illustration.

⁷ Ibid., 18-19.



Fig. 3. Metric reduction with eighth-note grid.

*MWFR 2. Every beat at a given level must also be a beat at all smaller levels present at that point in the piece.*⁸

MWFR 2 will come into play later in the analysis; it requires that when the next highest metric level (here the quarter or dotted-quarter) is added, each beat must correspond to a beat at the eighth-note level.

*MWFR 3. At each metrical level, strong beats are spaced either two or three beats apart.*⁹

This rule, which provides guidelines for the spacing of strong beats, will also be addressed later in the analysis. Due to the irregularity of Copland's rhythms, strong beats occur at uneven intervals, but in accordance with MWFR 3, they almost never occur adjacent to one another.

*MWFR 4. The tactus and immediately larger metrical levels must consist of beats equally spaced throughout the piece. At subtactus metrical levels, weak beats must be equally spaced between the surrounding strong beats...the tactus [may be] subdivided into threes at one point and twos at another, as long as particular beats of the tactus are evenly subdivided.*¹⁰

⁸ Ibid.

⁹ Ibid., 69.

¹⁰ Ibid., 72

Lerdahl and Jackendoff define the tactus as “...the level of beats that is conducted and with which one most naturally coordinates foot-tapping and dance steps.”¹¹ They cite three factors as influencing the beat level which is perceived as the tactus:

1. *Absolute speed: the tactus is invariably between 40 and 160 beats per minute, and often close to the Renaissance tactus of 70.*
2. *The tactus cannot be too far away from the smallest metrical level: a succession of notes of too short duration is generally an indication of a relatively fast tactus, unless the subdivisions are introduced gradually, as often happens in slow movements or variation movements. On the other hand, the tactus is usually not faster than the prevailing note values.*
3. *The choice of tactus is related to harmonic rhythm. A piece with frequent functional harmonic change is heard with a faster tactus than a piece with equal note values but less frequent harmonic change. Roughly, each beat of the tactus must have only a single functional harmony.¹²*

In the case of both the first and last movements of the *Short Symphony*, the tactus alternates irregularly between the quarter-note and the dotted-quarter. However, this irregularity comes into direct conflict with MWFR 4, which requires that the tactus be subdivided evenly (i.e. either in groups of two or three eighth-notes, but not both). However, Lerdahl and Jackendoff provide an exception for expressly this situation:

By keeping MWFR 3 but dropping MWFR 4 we describe a metrical idiom of considerable irregularity, in that strong beats at each level can be indiscriminately two or three beats apart. Such structures appear, for instance, in some of Stravinsky’s music—reflected notationally by his use of constantly changing meters. Note that the lack of rigidity in the metrical structure means that there is no prevailing pattern to which local details can be set in opposition; rather, strong beats will be heard wherever there are appropriate local details. This predicts that it will be more difficult in

¹¹ Ibid., 71

¹² Ibid., 73-74.

such a metrical idiom to produce effects of syncopation, which depend on the conflict of a rigid metrical pattern with local evidence."¹³

In addition to accommodating Copland's rhythms, this statement also offers a profound insight on the role of syncopation in music of this type: namely that the more erratically the pulse alternates between subdivisions of two and three, the more difficult it is to produce and perceive the effects of syncopation. This provides one possible explanation of why Copland set certain gestures "off the beat" in the *Short Symphony*, but then "on the beat" in the *Sextet*, as discussed in the previous chapter: he understood that the irregularity of pulse largely negated the syncopation, so that the listener would hear a gesture the same way regardless of how it was positioned in the bar. This follows Copland's agreement with Walter Piston that "...the barline in music is only a convenience for keeping time and that it indicates rhythmic stress only by accident and coincidence."¹⁴

Taking the authors' advice in keeping the first three Metrical Well-Formedness Rules, we are left with a metrical system in which 1.) every attack-point corresponds with a beat at the smallest metric level, 2.) all larger beats coincide with beats at lower levels, and 3.) strong beats are spaced either two or three beats apart. We will return to these three rules frequently throughout the analytic procedure.

¹³ Ibid., 97.

¹⁴ Copland, Aaron, *Copland on Music* (New York: W.W. Norton, 1963), 275.

The Analytical Process: Metrical Preference Rules

The second stage invokes five more flexible rules to the metric reduction described above.¹⁵ These are called the Metrical Preference Rules, and can be divided into two groups. The first two rules function much like the Metrical Well-Formedness Rules detailed above, providing guidance for the best possible metric structure, but without the rigidity of the latter.

*MPR 1. Parallelism. Where two or more groups or parts of groups can be construed as parallel, they preferably receive parallel metrical structure.*¹⁶

*MPR 2. Strong Beat Early. Weakly prefer a metrical structure in which the strongest beat in the group appears relatively early in the group.*¹⁷

The final three rules are better understood as criteria; beats which meet the requirements of one or more of these rules are felt more strongly than those that do not. It is with these rules that we actually begin the task of analysis.

*MPR 3. Event. Prefer a metrical structure in which beats of [a given level] that coincide with the inception of pitch-events are strong beats [at that level].*¹⁸

This is the first rule that we apply directly to our metrical reduction. Beats at the lowest level that meet the requirements of MPR 3 are labeled accordingly (see Fig. 4).

¹⁵ There are several additional Metrical Preference Rules, which address musical elements (suspensions, cadences, etc.) that do not function in works of this style as they do in common practice music. These rules have been omitted from the present analysis.

¹⁶ Lerdahl and Jackendoff, *Generative Theory of Tonal Music*, 75.

¹⁷ *Ibid.*, 76.

¹⁸ *Ibid.*

Fig. 4. Metric reduction with MPR 3 applied at the eighth-note level.

MPR 4. Stress. Prefer a metrical structure in which beats of [a given level] that are stressed are strong [at that level].¹⁹

Here we identify notes that are marked with accents, *sforzandi*, and other articulation marks indicating stress. In this case, I have also included *tenuto* marks in this category. Beats that meet the requirements of MPR 4 are labeled accordingly. Interestingly, we can already observe a pattern emerging in which certain beats are felt more strongly than others (see Fig. 5).

Fig. 5. Metric reduction with MPRs 3 and 4 applied at the eighth-note level.

MPR 5. Length. Prefer a metrical structure in which a relatively strong beat occurs at the inception of either:

- a. a relatively long pitch-event,
- b. a relatively long duration of a dynamic
- c. a relatively long slur,

¹⁹ Ibid., 79.

- d. a relatively long pattern of articulation,
- e. a relatively long duration of a pitch in the relevant levels of the time-span reduction,²⁰

MPR 5 identifies beats that correspond with the inception of a relatively long musical event (Rule 5e applies to beats in which a pitch is subsequently repeated on adjacent beats at the level the analysis is being applied). Note that these five sub-rules within MPR 5 generally apply only to singular musical events. Additional Metrical Preference Rules involve the grouping of multiple events into larger structures. The invocation of these rules requires a separate grouping/segmentation analysis beyond the scope of the present study.²¹ For our purposes, durations lasting three or more eighth-notes are considered “relatively long” at this level. As with the previous Metrical Preference Rules, beats meeting the criteria of MPR 5 are labeled accordingly (see Fig. 6).

The figure shows a musical score with two staves (treble and bass clef) and a metric reduction below. The score includes dynamic markings: *p*, *sf*, *mf*, *sf*, and *mf*. A *grace* marking is present above the final measure. The metric reduction below the staves consists of two rows of numbers: the first row contains 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3; the second row contains 4, 4, 5a, 4, 5c, 5b, 4, 5e, 5a, 5c, 5c, 5b, 4. The labels 5a, 5b, 5c, and 5e are positioned between the two rows of numbers.

Fig. 6. Metric reduction with MPRs 3, 4, and 5 applied at the eighth-note level.

As we can see in Fig. 6, certain beats at the eighth-note level aggregate more MPR criteria than others. These beats are generally felt more strongly than

²⁰ Ibid., 84.

²¹ Readers who wish to take this research further are encouraged to find guidance in the work of Tenney and Polansky, Hasty, Lefkowitz and Taavola, Hanninen, and Volk, in addition to Lerdahl and Jackendoff. See Bibliography for relevant sources.

from point 9, we have the option of placing a tactus beat at either point 4 or 5. Since the note at point 5 has an accent, (as well as the root pitch of the chord), it is given a stronger metric weight, and thus receives preference at the tactus level. With tactus beats at points 5 and 9, MWFR 3 dictates that the gaps in between be filled with quarter-notes.

Points 18 and 19 present a gesture analogous to 4 and 5; MPR 1 advises that parallel passages receive similar treatment, therefore advocating that a tactus beat be placed at point 19. Examining the gap between points 9 and 19, the presence of MPR 3 at alternating eighth-note beats at 11 and 13 suggests a series of quarter-note tactus beats, continuing the pattern started earlier. The accent at point 11 and the slur at 15 support this argument. While it meets the criteria of MPRs 3 and 5b, point 18 cannot be marked as a tactus beat due to the restrictions of MWFR 3.

With a tactus beat at 19 and another at 24, we now have to divide the five eighth-notes in between. Because 19 marks the beginning of three repeated Ds (disregarding the octave displacement), MPR 5e suggests that a tactus beat of a dotted-quarter is the strongest solution. A quarter-note beat at point 22 fills the gap.

The slurs at points 27 and 29 indicate quarter-note beats, and because they mirror the gesture at 13 and 15, MPR 1 supports this interpretation as well. The occurrence of a beat at point 27 dictates a dotted-quarter beat at 24. Finally, the accent at 33, a point in the music parallel to 5 and 19 advocates for the placement of a beat there. A quarter note beat at 31 fills out the passage.

Now that we have determined the placement of beats at the tactus layer, we apply the Metrical Preference Rules a second time.²² The results of this level of analysis will help determine the next-highest layer: that of the measure (see Fig. 8). For our purposes, durations of two or more quarter-notes are considered, in line with MPR 5, “relatively long.”

Fig. 8. Metric reduction with the measure level added.

The procedure for placing measure-length “beats” is very much the same as at the tactus level. Here the strongest beats at points 9 and 24 mark the beginning of measures, as do the accents at 19 and 34.²³ The first four tactus beats are grouped together into a single bar to accommodate the rests at the beginning of the piece, and to create a metrical scheme congruent to several parallel passages later in the movement. This treatment also places the accent at point 5 on the third beat of the bar, a position of relative strength in a 4/4 measure.

²² Readers wishing to take this work further by the use of a segmentation or grouping analysis would do so at this level, and potentially again at the measure level, discussed below.

²³ Starting a measure at 11 in addition to 9 would violate MWFR 3, which dictates that strong beats cannot be placed adjacent to one another.

With the analysis complete, we can use our findings to re-bar the excerpt accordingly (see Fig. 9).

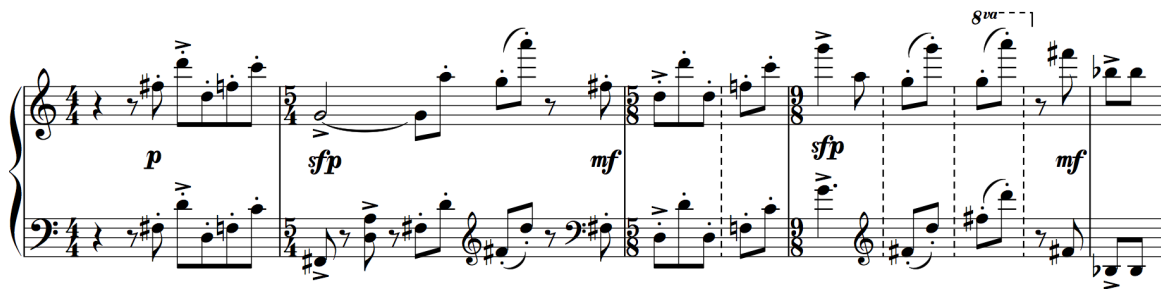


Fig. 9. Opening measures of the *Short Symphony* re-barred.

Polyphony and Polymeter: Two Problem Areas

While the *Generative Theory of Tonal Music* supplies excellent tools for metrical analysis, it is not ideally suited for every task; just the few opening measures illustrate that there is rarely a single “right answer.” In polyphonic writing, for instance, Lerdahl and Jackendoff’s method is decidedly less helpful. Indeed, the authors acknowledge this very issue:

At the present stage of development of the theory, we are treating all music as essentially homophonic; that is, we assume that a single grouping analysis suffices for all voices of a piece. For the more contrapuntal varieties of tonal music, where this condition does not obtain, our theory is inadequate. We consider an extension of the theory to account for polyphonic music to be of great importance. However, we will not attempt to treat such music here except by approximation.²⁴

Much of Copland’s music is polyphonic, and in the case of the *Short Symphony*, his polyphonic writing is often also polymetric, with several metric schemas operating simultaneously. A further complication is that each of these schemas is

²⁴ Ibid., 37.

also in mixed meter, so that the relationship between each of the voices is in constant flux.

One of the most extreme examples of this technique appears in the developmental music at R. 13 in the first movement. Here the central motive of the Symphony is imitated canonically among the woodwinds and upper strings (see Fig. 14).

Fig. 14. Polymetric figures at R. 13 (original barring).

While Copland's setting this passage in 5/4 reflects, to some degree, the note-lengths of the accompanying figures (adding up to five eighth-notes) in the top two lines of Fig. 14, it does not relate to the various entrances of the motive, first stated at the beginning of the third line. Compared with other instances in the movement, the initial statement in this example shows it to be an "on-the-beat" gesture; however, in Fig. 14, we see that it appears both on and off the beat. (In the *Sextet*, Copland bars the section in 3/4, creating the same inconsistencies.) In order to give each entrance equal metric emphasis, I chose a scheme that places each entrance on the downbeat of a bar while causing minimal disturbance to the accompanying figures (see Fig. 15).



Fig. 15. Polymetric figures at Rehearsal No. 13 (rebarred).

A second polyphonic trouble spot occurs in the finale at R. 45. Here, three mixed-meter voices operate in canon: the first violins with flutes and first trumpet, the second violins with oboe and heckelphone, and the violas with second trumpet. Punctuating this texture at uneven intervals is a four-note pattern in the bass line (see Fig. 10).



Fig. 10. Polymetric lines in *Short Symphony*, Mvt. III at R. 45.

In his barring of the *Short Symphony*, Copland sets the meter in accordance with the highest voice in the texture, beaming the lower voices across the barlines to clarify their rhythms. While this makes the topmost voice relatively easy to

navigate, the remaining three voices become difficult to execute. In the *Sextet*, Copland arranges the whole passage (and indeed much of the work as a whole) in 3/4 time, adding dotted bar-lines within the individual parts to indicate simple and compound note groupings (see Fig. 11).



Fig. 11. Above passage as it appears in the *Sextet*.

While this approach provides a more level foundation on which the four voices can operate, it bears little connection to the music itself. In a very real sense, performers must work to ignore the printed meter in order to realize the inherent meter of the lines they are playing. Copland himself acknowledged this in his *Shop Talk* essay quoted earlier: “It is not always easy to ignore the bar-line, as one must in playing [polyrhythmic music set in a single simple meter]. But once the rhythm is well learned it is easy to reproduce.”²⁵ Judging by the dearth of performances of both the *Sextet* as well as the *Short Symphony*, it is apparently not as easy as Copland surmises.

In addressing this passage I sought to find a “middle way” between an asymmetrical metrical schema that favored heavily one voice and a more

²⁵ Copland, *Copland on Music*, 276.

straightforward schema that favored none. While Lerdahl and Jackendoff's method offers little guidance in polyphonic situations, one of the Metrical Preference Rules that was largely set aside earlier provides valuable direction:

*MPR 6. Bass. Prefer a metrically stable bass.*²⁶

MPR 6 was avoided for most of the analysis because, while it can prove useful within a context of regular rhythmic groupings, in music of this style it can actually create additional complications. Take for example the "Soldier's March" from Stravinsky's *L'histoire du soldat* (see Fig. 12).



Fig. 12. Excerpt from "The Soldier's March" from Stravinsky's *L'histoire du soldat*.

Here we find an irregular melodic rhythm over a bass in a stable duple grouping. To invoke MPR 6 in this example, giving metrical preference to the bass line, as Leonard B. Meyer has suggested,²⁷ would yield a result in which the melodic rhythm is obfuscated (see Fig. 13).

²⁶ Lerdahl and Jackendoff, *A Generative Theory of Tonal Music*, 88.

²⁷ Leonard Meyer, *Emotion and Meaning in Music* (Chicago: University of Chicago Press, 1956), 119-120.



Fig. 13. The same passage re-barred to give stability to the bass line.

Comparing the two versions, the ascending B-C#-D motive appearing in each of the 3/8 measures in Fig. 12 alternates as a syncopation and as a metrically strong gesture in Fig. 13.²⁸ Not only does this obscure the repetitive nature of this rhythm, but it also violates MPR 1, which prefers that parallel groupings receive parallel metric structures.

However, in the context of the four-voiced polymeter presented in Figs. 10 and 11, a selective use of MPR 6 allows the recurring bass patterns to serve as grounding gestures, or musical pillars, supporting the upper voices. Setting each of the bass figures as a 3/8 bar results in durations between repetitions almost always divided into a series of regular duple beats. Hence the meter is practicable from a performance standpoint while still remaining attached to the music (see Fig. 14).

²⁸ Pieter C. van den Toorn, "Stravinsky Re-Barred," *Music Analysis* 7, no. 2 (July, 1988): 165-167.

Fig. 14. Above passage re-barr'd for the present version.

Ostinati

In addition to (and often in combination with) polymeter, Copland's use of *ostinati* also requires modified analytical methods. An example is the rapid pattern of dotted rhythms alternating between octaves and clashing major/minor thirds that first appears at R. 28 in the third movement. These figures arrange themselves into uneven groupings of two or three beats (see Fig. 13).

Fig. 13. *Ostinato* arranged into groupings of two and three beats.

In the *Short Symphony*, Copland bars this passage in 5/4; in the *Sextet*, he sets it in 3/4. While both settings provide a steady array of beats, neither bears any relationship to either the *ostinato* or the irregular rhythmic gestures that occur above it.

Because it is so difficult to execute precisely at the rapid tempo the composer indicates, I chose to bar this passage according to the lengths of the *ostinato* patterns, so that every measure—whether 2/4 or 3/4—ends with the same pairing of dotted-sixteenth- and thirty-second-notes. The alternative option of barring in mixed meter (in accordance with the Lerdahl-Jackendoff analysis of the other musical elements), would render this passage prohibitively difficult in performance.

Conclusions

While the outer movements of the *Short Symphony* constitute only ten minutes of music, the complexity of Copland's writing, combined with the intricacy of the analytical method and re-barring outlined above, makes impractical a measure-by-measure explication of the innumerable considerations and choices that led to the present version. However, it is my hope that the examples and procedures supplied in this chapter will be sufficient to aid the reader in deciphering the complete Lerdahl-Jackendoff analysis of both movements (see Appendix A).

As I hope to have illustrated, the task of re-barring this—or any other—piece by these means is much more than a math problem; while *A Generative Theory of Tonal Music* provides an excellent and largely objective starting point, nearly every measure requires a degree of compromise between analysis, intuition, and pragmatism. Such a balance should serve to enhance the integrity of the interpretation, as each element informs the others.

It is my sincere hope that this undertaking will help offer renewed life to an undeservedly neglected masterpiece. I also hope that others may find this method useful in addressing metrical dilemmas surrounding other works or, at the very least, in looking behind the bounding lines of the measure to see where the real music lives.

AFTERWORD

On May 15, 2014, I had the invaluable experience of conducting Copland's *Short Symphony*, in my newly re-barréd version, with UCLA Philharmonia, the university's premiere orchestra. It was a rare opportunity to test, in the context of a real performance, what had previously been an academic exercise. As might be expected, I was extremely anxious at the first rehearsal, hoping and believing—but not *knowing*—that my changes had made the work more comprehensible. To my great relief, the members of the orchestra, none of whom had played the piece previously (except the concertmaster, who had performed the *Sextet* several years earlier), took to the complex meters with, if not ease, at least a reasonable level of comfort and familiarity. Moving slowly through the work, I was startled—and actually overwhelmed—by how quickly it all fell into place.

The areas that demanded the most attention were, unsurprisingly, the two densely polymetric sections discussed in Chapter 3. These would be difficult in any metric arrangement, but I believe that anchoring the meter on melodic gestures in the first instance, and bass-line rhythms in the second, created a notational situation in which the most important musical lines were supported by the written meter, giving the subordinate voices a solid foundation on which they could array their contrasting material.

As part of my lecture preceding the performance, I discussed Nicolas Slonimsky's re-barring of *Le Sacre*, and asked the orchestra to play a short portion of the "Danse Sacrale" in both the original and re-barréd versions. In rehearsing these excerpts, I was shocked by the ease with which the orchestra dispatched

Slonimsky's version. However, as I expected, the jarring rawness of Stravinsky's original rhythms were almost completely lost, despite the fact that not a single note was altered between the two versions.

I found the converse to be true in the case of the *Short Symphony*. With the simple and compound beats made clear in the score and parts, the orchestra was able to comprehend Copland's asymmetrical rhythms immediately, giving the music a lilt and swing much more difficult to achieve in the original meters. And while my new version required perhaps more concentrated counting on the part of both orchestra and conductor, the consistent agreement of rhythmic and metric emphasis aided immensely in keeping the ensemble together.

I am buoyed by the results of this experiment, and optimistic that it represents at least a small step forward in improving the future performance prospects of this wonderful and important work.

APPENDIX A - SHORT SYMPHONY (No. 2)

(Lerdahl-Jackendoff Metric Analysis and Derived Re-barring)

I

AARON COPLAND
Analysis by Ryan Dudenbostel

Tempo ♩ = 144 (incisivo)

Original Meter

Metric Reduction

Lowest Operating Level

Tactus Level

Measure Level

Re-barring

First system of musical notation. It consists of a piano staff (treble clef) and a bass staff (bass clef). The piano part features a melodic line with slurs and accents, marked with a forte (*f*) dynamic. The bass part provides a harmonic accompaniment. A first ending bracket is present at the end of the system.

Second system of musical notation, continuing the piano and bass parts from the first system. It maintains the same melodic and harmonic material.

L. Fingerings for the left hand, indicated by numbers 3 and 4, and letters 5c, 5b, 5a, 5e, and 5d.

T. Fingerings for the tenor part, indicated by numbers 3 and 4, and letters 5a and 5d.

M. Musical notation for the middle part, consisting of a single melodic line with slurs.

Third system of musical notation, including piano and bass staves. It continues the musical material with dynamic markings and includes a double bar line.

L'istesso tempo

First system of musical notation, including piano and bass staves. Dynamic markings include *mf*, *p*, and *f*. A fermata is present over the first measure of the piano staff.

Second system of musical notation, including piano and bass staves. Dynamic markings include *mf*, *p*, and *f*. A fermata is present over the first measure of the piano staff.

L. Fingerings for the Left Hand (L.) across the system, including triplets and specific fingering numbers like 3, 4, 5a, 5b, 5e.

T. Fingerings for the Tenor (T.) across the system, including specific fingering numbers like 3, 4, 5a, 5b.

M. Fingerings for the Middle (M.) across the system, including specific fingering numbers like 3, 4, 5a, 5b.

Third system of musical notation, including piano and bass staves. Dynamic markings include *mf*, *p*, and *f*. A fermata is present over the first measure of the piano staff.

2

Piano Part:

- Top Staff: Treble clef, dynamics *f*, *mf*, *f*, *sf*.
- Bottom Staff: Bass clef, dynamics *ff*, *sf*.

Guitar Part:

- L. (Left Hand):

3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3
4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4
5b	5a	5b	5a	5a	5a	5a	5a	5b	5a 5e
- T. (Right Hand):

3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3
4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4
5b	5b	5b	5a	5a	5a	5a	5a	5b	5e
- M. (Middle):

3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3	3 3 3 3 3
4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4	4 4 4 4 4
5b	5b	5b	5a	5a	5a	5a	5a	5b	5e

Piano Part (Bottom System):

- Top Staff: Treble clef, dynamics *f*, *mf*, *f*, *sf*.
- Bottom Staff: Bass clef, dynamics *ff*, *sf*.

First system of piano accompaniment. Treble and bass staves. Includes a triplet of eighth notes in the treble staff. Dynamic markings: *p* and *f > p*.

Second system of piano accompaniment. Treble and bass staves. Includes a triplet of eighth notes in the bass staff. Dynamic markings: *p* and *f > p*.

L.
3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
4 4
5a 5a 5a 5e 5a 5a 5a 5a 5a 5a 5a 5a 5a 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e

T.
3 3
4 4
5e 5e 5e 5e 5e 5a

M.
1 1

Third system of piano accompaniment. Treble and bass staves. Includes a triplet of eighth notes in the treble staff. Dynamic markings: *p* and *f > p*.

First system of musical notation with piano and bass staves. Dynamics include *fp*, *sf*, and *sf f*.

Second system of musical notation with piano and bass staves. Dynamics include *fp*, *sf*, and *sf f*.

Middle section with three staves: L., T., and M. L. and T. staves contain rhythmic patterns and fingerings (3, 4, 5a, 5b, 5e). M. staff contains long horizontal lines representing sustained notes.

Third system of musical notation with piano and bass staves. Dynamics include *fp*, *sf*, and *sf f*.

4

8va

fpp *p* *mf* *fp* *ff*

8va

fpp *p* *mf* *fp* *ff*

L.

T.

M.

8va

fpp *p* *mf* *fp* *ff*

5

ff *ff* *ff* *ff*

ff *ff* *ff* *ff*

L.

T.

M.

ff *ff* *ff* *ff*

6

ff *meno f* *f*

ff *meno f* *f*

L.

T.

M.

ff *meno f* *f*

Musical score for the first system, featuring piano and bass staves. The piano staff includes a circled '7' above a measure. The bass staff has a circled '7' above a measure. The dynamic marking *ff* is present. The system concludes with an 8-measure rest and a circled '8' above a measure.

Musical score for the second system, featuring piano and bass staves. The piano staff has a circled '7' above a measure. The bass staff has a circled '7' above a measure. The dynamic marking *ff* is present. The system concludes with an 8-measure rest and a circled '8' above a measure.

L.
3
4
5a 5a 5a 5a 5a 5a 5d 5e 5a 5a 5b 4 5d 3 5a 5c 5a 5a

T.
3
4
5d 5e 5a 5c 5a 5a

M.

Musical score for the third system, featuring piano and bass staves. The piano staff has a circled '7' above a measure. The bass staff has a circled '7' above a measure. The dynamic marking *ff* is present. The system concludes with an 8-measure rest and a circled '8' above a measure.

8

ff *sf* *sf* *fp*

ff *sf* *fp*

L.

3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
 5a 5a 5a 5a 5e 5a 5a 5a 5a 5e 5a 5a 5a 5a 5a 5a
 5c 5c 5e 4 3

T.

3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
 5a 5a 5a 5a 5e 5a 5a 5a 5a 5a 5a 5a 5a 5a 5c 5e 4

M.

ff *sf* *sf* *fp*

Musical score for the first system, featuring a treble and bass staff. A circled measure number '9' is positioned above the second measure of the treble staff.

Musical score for the second system, featuring a treble and bass staff.

L.

Musical notation for the L. part, consisting of a single staff with rhythmic patterns.

T.

Musical notation for the T. part, consisting of a single staff with rhythmic patterns.

M.

Musical notation for the M. part, consisting of a single staff with rhythmic patterns.

Musical score for the third system, featuring a treble and bass staff.

First system of musical notation, consisting of a treble staff and a bass staff. The music includes various rhythmic values, accidentals, and a dynamic marking of *p* (piano).

Second system of musical notation, consisting of a treble staff and a bass staff. The music includes various rhythmic values, accidentals, and a dynamic marking of *p* (piano).

L.

Lute tablature for the first system, showing fret numbers for each string. The notation includes numbers 3, 4, 5a, 5d, and 5b.

T.

Trombone tablature for the first system, showing fret numbers for each string. The notation includes numbers 3, 4, 5a, and 5e.

M.

Mandolin tablature for the first system, showing fret numbers for each string. The notation includes numbers 3, 4, and 5a.

Third system of musical notation, consisting of a treble staff and a bass staff. The music includes various rhythmic values, accidentals, and a dynamic marking of *p* (piano).

10

Musical score for the first system, measures 1-4. It includes treble and bass staves for the upper part and a grand staff for the lower part. Dynamics are marked as *mp* and *mf*.

Musical score for the second system, measures 5-8. It includes treble and bass staves for the upper part and a grand staff for the lower part. Dynamics are marked as *mp* and *mf*.

L.				
	3 3 3 3 3 3 3 3	3 3 3 3 3 3 3 3	3 3 3 3 3 3 3 3	3 3 3 3 3 3 3 3
	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4
	5a 5e	5a 5e 5e 5a	5a 5e 5e 5a	5b 4 4 4

T.				
	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3
	4 4 4 4	4 4 4 4	4 4 4 4	4 4 4 4
	5a 5e	5a 4 4	5a 4 4	5b 4 4 4

Musical score for the third system, measures 17-20. It includes treble and bass staves for the upper part and a grand staff for the lower part. Dynamics are marked as *mp* and *mf*.

11

Piano Accompaniment (Systems 1-2):
 Treble and Bass clefs. Marking: *ff*. Key signature: one sharp (F#).
 Treble staff: *ff* markings at measures 2, 4, 6, and 8.
 Bass staff: *ff* markings at measures 2, 4, 6, and 8.

Vocal Lines (System 3):
 L. Soprano: $\frac{3}{4}$, $\frac{3}{4}$.
 T. Tenor: $\frac{3}{4}$, $\frac{3}{4}$.
 M. Mezzo: $\frac{3}{4}$, $\frac{3}{4}$.
 Additional markings: 5b, 5d, 5b.

Piano Accompaniment (Systems 4-5):
 Treble and Bass clefs. Marking: *ff*. Key signature: one sharp (F#).
 Treble staff: *ff* markings at measures 2, 4, 6, and 8.
 Bass staff: *ff* markings at measures 2, 4, 6, and 8.

12

L.

T.

M.

Violin I
Violin II
Viola
Cello/Double Bass

f

L.

T.

M.

A musical score for guitar, voice, and piano. The score is divided into three systems. The first system (measures 1-12) features a guitar part with a *p* dynamic and a vocal part with an *sfz* dynamic. The second system (measures 13-24) continues the guitar and vocal parts. The third system (measures 25-36) shows the guitar part changing to a 9/8 time signature and a piano part with an *sfz* dynamic. The vocal part continues with lyrics. Fingerings are indicated by numbers 1-5 below notes. The piano part includes a complex rhythmic pattern of eighth notes.

L.

T.

M.

Musical score for voice and piano, featuring a complex rhythmic pattern with triplets and sixteenth notes. The score is divided into two systems, each with three staves for piano accompaniment and three staves for voice (L., T., M.).

The piano accompaniment consists of three staves per system. The voice parts are: L. (Left Voice), T. (Tenor), and M. (Bass/Menor).

The first system includes dynamics markings such as *mf* and *f*. The second system includes time signature changes (9/8, 3/4, 8/8) and dynamics markings such as *mf*.

The vocal parts include fingerings and syllables (e.g., 3, 4, 5a, 5e, 5b, 5d) indicating specific notes and techniques.

Guitar Part:
Measures 16-21: *ff* (fortissimo)
Measures 22-27: *ff*
Measures 28-33: *ff*
Measures 34-39: *ff*
Measures 40-45: *ff*

Vocal Part:
Measures 16-21: S. 3 3 3 3 3 3, T. 3 3 3, M. (quarter notes)
Measures 22-27: S. 3 4 5a, T. 3 4 5b 5c, M. (quarter notes)
Measures 28-33: S. 3 3 3 3 3 3, T. 3 3 3 3, M. (quarter notes)
Measures 34-39: S. 3 4 5a 5a, T. 3 4 5e, M. (quarter notes)
Measures 40-45: S. 3 4 5a, T. 3 4 4 4, M. (quarter notes)

17

ff

ff

L.

T.

M.

ff

First system of musical notation, including piano and bass staves. Dynamic markings include *ff*, *p*, and *mf*.

Second system of musical notation, including piano and bass staves. Dynamic markings include *ff*, *p*, and *mf*.

L. Fingerings for the left hand, including triplets and specific notes like 5a, 5b, 5d.

T. Fingerings for the tenor part, including triplets and specific notes like 5e, 5b, 5d, 5a.

M. Fingerings for the middle part, including triplets.

Third system of musical notation, including piano and bass staves. Dynamic markings include *ff*, *p*, and *mf*.

III

27 **Tempo** ♩ = 144 (preciso e ritmico)

p *mp* *mf* *f* *sf*

p *mp* *mf* *f* *sf*

Lowest Operating Level

Tactus Level

Measure Level

Re-barring

p *mp* *mf* *f* *sf*

The score is divided into five horizontal levels of analysis, each with two staves (treble and bass clef):

- Original Meter:** Shows the original notation with dynamic markings *p*, *mp*, *mf*, *f*, and *sf*.
- Metric Reduction:** Shows the same notation with simplified rhythmic values.
- Lowest Operating Level:** Shows individual notes with fingerings (e.g., 3, 4, 5a, 5c) and articulation marks.
- Tactus Level:** Shows notes grouped into tactus units with numerical values (e.g., 3, 4, 5a, 5c).
- Measure Level:** Shows notes grouped into measures with curved lines.
- Re-barring:** Shows the original notation with new bar lines and dynamic markings *p*, *mp*, *mf*, *f*, and *sf*.

Top system of musical notation (measures 28-33), including piano and bass staves with dynamic markings *sf* and *f*.

Second system of musical notation (measures 34-39), including piano and bass staves with dynamic markings *sf* and *f*.

L.	
T.	
M.	

Bottom system of musical notation (measures 40-45), including piano and bass staves with dynamic markings *sf* and *f*.

The musical score is divided into four systems. The first system contains the guitar and lute parts. The second system also contains the guitar and lute parts. The third system contains the lute, tenor, and mandolin parts. The fourth system contains the guitar and mandolin parts. The guitar and lute parts feature complex rhythmic patterns and melodic lines. The lute, tenor, and mandolin parts are more rhythmic and accompanimental. The score includes various musical notations such as notes, rests, and articulation marks.

System 3: Lute, Tenor, and Mandolin parts

Instrument	Staff 1	Staff 2	Staff 3	Staff 4	Staff 5	Staff 6	Staff 7	Staff 8	Staff 9	Staff 10	Staff 11	Staff 12	Staff 13	Staff 14	Staff 15	Staff 16	Staff 17	Staff 18	
L.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
T.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
M.																			

29

cresc. molto

cresc. molto

cresc. molto

L.

T.

M.

30

The score is for measures 29-33. It features three parts: L (Violins), T (Violas), and M (Cellos/Double Basses). Each part has a piano staff and a double bass staff. The key signature is two flats (B-flat and E-flat). The time signature is 4/4. Dynamic markings include *ff* (fortissimo) and *sf* (sforzando). There are also accents and breath marks (v) throughout. A box around the measure number '30' indicates the start of the section.

Part	M29	M30	M31	M32	M33
L	3, 3, 3, 3 5a, 5e	3, 3, 3, 3 5a	3, 3, 3, 3 5b, 5a	3, 3, 3, 3 5a	3, 3, 3, 3 5a, 5c, 5e
T	3, 3	3, 3	3, 3	3, 3 5a	3, 3 5a, 5e
M	(Bass clef)	(Bass clef)	(Bass clef)	(Bass clef)	(Bass clef)

First system of musical notation, featuring a treble and bass staff with complex chordal textures and dynamic markings such as *ff* and *sf*.

Second system of musical notation, continuing the complex chordal textures and dynamic markings from the first system.

Hand positions for L., T., and M. fingers, showing rhythmic patterns and fingering numbers (3, 4, 5e, 5a, 5b) for each hand.

Hand	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6	Measure 7	Measure 8	Measure 9	Measure 10	Measure 11	Measure 12	Measure 13	Measure 14	Measure 15	Measure 16	Measure 17	Measure 18	Measure 19	Measure 20
L.	3 3 3	3 3	3 3	3	3 3 3	3 3 3	3 3 3	3 3 3 3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3
T.	3 3	3 3	3 3	3	3 3	3 3	3 3	3 3 3 3 3	3 3 3	3 3	3 3	3 3 3	3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3 3	3 3
M.																				

Third system of musical notation, including changes in time signature and dynamic markings such as *ff* and *sf*.

Musical score for the first system, measures 31-35. It consists of a grand staff with two treble clefs and one bass clef. The piece is in 4/4 time and features complex rhythmic patterns with many sixteenth notes. Dynamics include *sf*, *fpp*, *mp*, and *sf*. There are also hairpins for crescendo and decrescendo.

Musical score for the second system, measures 31-35. It consists of a grand staff with two treble clefs and one bass clef. The piece is in 4/4 time and features complex rhythmic patterns with many sixteenth notes. Dynamics include *sf*, *fpp*, *mp*, and *sf*. There are also hairpins for crescendo and decrescendo.

L.

Fingering for the Left Hand (L.) for measures 31-35. It shows numbers 3, 4, and 5a for the first four fingers. Measure 31: 3. Measure 32: 3. Measure 33: 3. Measure 34: 3. Measure 35: 3.

T.

Fingering for the Tenor Hand (T.) for measures 31-35. It shows numbers 3, 4, 5a, and 5e for the first four fingers. Measure 31: 3. Measure 32: 3. Measure 33: 3. Measure 34: 3. Measure 35: 3.

M.

Fingering for the Middle Hand (M.) for measures 31-35. It shows numbers 3, 4, 5a, and 5b for the first four fingers. Measure 31: 3. Measure 32: 3. Measure 33: 3. Measure 34: 3. Measure 35: 3.

Musical score for the third system, measures 31-35. It consists of a grand staff with two treble clefs and one bass clef. The piece is in 4/4 time and features complex rhythmic patterns with many sixteenth notes. Dynamics include *sf*, *fpp*, *mp*, and *sf*. There are also hairpins for crescendo and decrescendo.

Musical score for guitar, voice, and piano. The score is divided into two systems. The top system contains the guitar and voice parts. The middle system contains the piano accompaniment for the voice part, with fingerings for Left Hand (L.), Tenor (T.), and Mezzo (M.) voices. The bottom system contains the piano accompaniment for the guitar part. The score includes dynamic markings such as *f*, *ff*, *sf*, *fp*, *mp*, and *mf*, and a rehearsal mark 32.

Top system of the musical score. It consists of two staves (treble and bass clef). The upper staff begins with a forte (*ff*) dynamic and contains several measures of chords with accents. The lower staff begins with a mezzo-piano (*mp*) dynamic and contains a melodic line. The system concludes with dynamic markings of *fp* and *p*.

Second system of the musical score, identical in notation to the first system, featuring two staves with dynamic markings of *ff*, *mp*, *fp*, and *p*.

Middle section of the score with three staves labeled L., T., and M.

Staff	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
L.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
5b																													
5e																													
T.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
5b																													
5e																													
M.	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	

Bottom system of the musical score, identical in notation to the first two systems, featuring two staves with dynamic markings of *ff*, *mp*, *fp*, and *p*.

sub. *f*

f

sub. *f*

f

L.

3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

5b 5a 4 4 4 4 4 4 4 4 4 4 4 4

T.

3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

5e 5b 4 4 4 4 4 4 4 4 5e 4 4

M.

3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

5b 5a 4 4 4 4 4 4 4 4 4 4 4 4

sub. *f*

f

Musical notation for the first system, including a treble clef staff and a bass clef staff with various notes and rests.

Musical notation for the second system, including a treble clef staff and a bass clef staff with various notes and rests.

L.

Fingerings for the Left Hand (L.) showing numbers 3 and 4 for various notes. Includes a '5a' marking under the first measure.

T.

Fingerings for the Tenor (T.) showing numbers 3 and 4 for various notes. Includes a '5a' marking under the first measure and a '5e' marking under the seventh measure.

M.

Musical notation for the Middle (M.) part showing notes with slurs.

Musical notation for the third system, including a treble clef staff and a bass clef staff with various notes and rests.

Musical score for a piece in 6/8 time, featuring piano and guitar parts with fingerings and a double bass part. The score is divided into two systems. The first system consists of a piano part (top two staves), a guitar part (middle two staves), and a double bass part (bottom staff). The second system consists of a piano part (top two staves) and a double bass part (bottom staff). The piano part includes dynamic markings such as *f marc.* and accents. The guitar part includes fingerings for the left hand (L.), right hand (R.), and thumb (T.), as well as fret numbers (e.g., 3, 4, 5b, 5e). The double bass part includes fingerings (e.g., 3, 4, 5b, 5e) and slurs.

36

The score is arranged in four systems. Each system contains a vocal line (L., T., M.) and a piano accompaniment (piano and bass staves).
- **System 1:** Measures 36-41. The vocal line consists of eighth notes. The piano accompaniment features a rhythmic pattern of eighth notes in the right hand and chords in the left hand.
- **System 2:** Measures 42-47. Similar to the first system, with the vocal line continuing and the piano accompaniment providing harmonic support.
- **System 3:** Measures 48-53. The vocal line continues with eighth notes. The piano accompaniment includes some chords with longer note values.
- **System 4:** Measures 54-59. The vocal line concludes with eighth notes. The piano accompaniment ends with a final chord.

This page contains a musical score for piano, voice, and guitar. The piano part is written in treble and bass clefs with various dynamics including *ff* and *sf*. The voice part includes lyrics for Soprano (S.), Tenor (T.), and Mezzo (M.) with fingerings and breath marks. The guitar part is written in treble clef with chord diagrams and fingerings.

Musical score for the first system, featuring piano, violin, and cello parts. The piano part includes dynamic markings such as *mp*.

Musical score for the second system, featuring piano, violin, and cello parts. The piano part includes dynamic markings such as *mp*.

L.
T.
M.

Fingering and bowing notation for the first, second, and third strings. The notation includes numbers 3 and 4, and letters d, b, c, indicating specific fingerings or bowing techniques.

Musical score for the third system, featuring piano, violin, and cello parts. The piano part includes dynamic markings such as *mp*.

L.
 T.
 M.

38

Pno. *ff marc.*

Pno. *ff marc.*

L.

T.

M.

The score consists of four staves. The top two staves are for Piano (Pno.), the middle for Lute (L.), and the bottom for Mandolin (M.).

- Piano (Pno.):** Both parts feature a rhythmic accompaniment of eighth notes in the right hand and chords in the left hand. Dynamics include *ff marc.* and *f*. There are melodic lines in the right hand of both parts, with accents and slurs.
- Lute (L.):** The part consists of rhythmic notation (3/4 and 4/4) with fret numbers (5b, 5e) and fingerings (3, 4) for the right hand.
- Mandolin (M.):** The part consists of rhythmic notation with slurs and fingerings (3, 4) for the right hand.

39

Pno. *sfp*

Pno. *sfp*

L.

T.

M.

pp

Pno.

Pno.

L.

T.

M.

Pno.

Pno.

L.

T.

M.

The musical score for page 41 consists of five systems. The top two systems are piano accompaniment (Pno.), each with a treble and bass staff. The piano part features a complex rhythmic pattern with triplets and sixteenth notes, and a melodic line in the right hand with slurs and ties. The third system contains three vocal parts: L. (Soprano), T. (Tenor), and M. (Bass). The L. part consists of eighth-note triplets with lyrics below. The T. part has dotted rhythms. The M. part has long note values with ties. The bottom two systems are piano accompaniment, similar to the top two, with changes in time signature (from 4/4 to 3/4 and back to 4/4).

Piano score for Pno., L., T., and M. The score is divided into two systems, each with a grand staff (bass and treble clefs) and a single staff for the L., T., and M. parts.

System 1:

- Pno. (Grand Staff):** The left hand plays a melodic line with slurs and ties. The right hand plays a rhythmic accompaniment of eighth notes. Dynamics include *p* and *p leggiero*.
- L. (Single Staff):** Fingerings for the left hand, including triplets and specific fingerings like 5c, 5a, 5e.
- T. (Single Staff):** Fingerings for the tenor part, including triplets and specific fingerings like 5a, 5b, 5e.
- M. (Single Staff):** Fingerings for the middle part, including triplets.

System 2:

- Pno. (Grand Staff):** Similar to System 1, with melodic and rhythmic parts. Dynamics include *p* and *p leggiero*.
- L. (Single Staff):** Fingerings for the left hand, including triplets and specific fingerings like 5a, 5b, 5e.
- T. (Single Staff):** Fingerings for the tenor part, including triplets and specific fingerings like 5a, 5b, 5e.
- M. (Single Staff):** Fingerings for the middle part, including triplets.

42

Pno.

Pno.

L.

T.

M.

The image displays a musical score for a piano (Pno.), lute (L.), tenor (T.), and mezzo-soprano (M.) across 11 measures. The piano part features a complex melodic line with various accidentals and a steady bass line. The lute part consists of a sequence of rhythmic patterns, each accompanied by a set of figured bass notation (e.g., 3 3 3 3, 4 4 5a). The tenor and mezzo-soprano parts are represented by single notes with stems, corresponding to the figured bass notation. The score includes various time signatures such as 7/8, 9/8, 10/8, 11/8, and 12/8.

Piano score, first system (Piano). Treble and bass clefs. Measure 43 is marked. Includes a large slur over the first seven measures.

Piano score, second system (Piano). Treble and bass clefs. Includes a large slur over the first seven measures.

L. (Lute). Rhythmic notation with fret numbers: 3 3 3 3 3 3 3 3 5a 3 5a 5c 3 3 3 3 3 5f 5a 3 5e 3 3 3 3 5a 5c 3 3 3 3 3 3 3 3.

T. (Tuba). Rhythmic notation with fret numbers: 3 3 3 3 5a 3 3 5a 5c 3 3 3 3 5f 5a 5e 3 3 3 5a 5c 3 3 3 3 3 3 3 3.

M. (Mandolin). Rhythmic notation with fret numbers: 3.

Piano score, third system (Piano). Treble and bass clefs. Measure 43 is marked. Includes a large slur over the first seven measures.

(moving forward)

(♩ = 144)

Pno.

mp *cresc.* *mf* *cresc.* *f* *ff*

sim.

Pno.

mp *cresc.* *mf* *cresc.* *f* *ff*

sim.

L.

3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

5b 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e

T.

3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

5b 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e

M.

3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

5b 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e 5e

(moving forward)

mp *cresc.* *mf* *cresc.* *f* *ff*

sim.

Musical score for Pno., L., T., and M. The score is divided into two systems. The first system includes two Pno. staves, an L. staff with fingering, a T. staff with fingering, and an M. staff. The second system includes two Pno. staves and an M. staff. Dynamic markings include *mf*, *sf*, and *8va*. A measure number 45 is indicated in a box. The score features complex rhythmic patterns and articulation.

46

The image displays a musical score for four parts: Piano (Pno.), Lyra (L.), Tromba (T.), and Mando (M.). The score is divided into three systems, with the first and third systems marked with a circled '8' in a box, indicating an 8-measure phrase. The piano part features complex rhythmic patterns with frequent sixteenth and thirty-second notes, often beamed together. The Lyra part consists of rhythmic patterns of eighth and sixteenth notes, with some rests. The Tromba part has a more sparse rhythmic pattern, often using dotted rhythms. The Mando part is primarily composed of sustained notes, often with slurs. The score includes dynamic markings such as *ff* (fortissimo) and articulation marks like accents (*>*) and staccato (*stacc.*). The key signature is one sharp (F#), and the time signature is 3/4. The first system includes a circled '8' in a box above the first staff. The second system also includes a circled '8' in a box above the first staff. The third system includes a circled '8' in a box above the first staff. The piano part includes a circled '7' in a box above the final measure of the first system, and another circled '7' above the final measure of the second system. The Lyra part includes a circled '7' in a box above the final measure of the first system, and another circled '7' above the final measure of the second system. The Tromba part includes a circled '7' in a box above the final measure of the first system, and another circled '7' above the final measure of the second system. The Mando part includes a circled '7' in a box above the final measure of the first system, and another circled '7' above the final measure of the second system.

Pno.

ff 47 *ff marc.*

Pno.

ff *ff marc.*

L.

3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	5b	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	5c																		
		5e			5a														

T.

3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	5b	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
		5e																	
						5e													

M.

Pno.

ff *ff marc.*

48

The score consists of five systems. The first system is for Pno., with two staves. The second system is also for Pno., with two staves. The third system includes L. (Lyra), T. (Tromba), and M. (Mandolino). The L. part has rhythmic notation with fingerings (3, 4) and breath marks. The T. part has rhythmic notation with fingerings (3, 4) and breath marks. The M. part has rhythmic notation with fingerings (3, 4) and breath marks. The fourth system is for Pno., with two staves. The fifth system is also for Pno., with two staves.

Pno.

Pno.

L.

T.

M.

Pno.

Pno. *sforz* *meno f*
 Pno. *sforz* *meno f*
 L.
 T.
 M.
 Pno. *sforz* *meno f*

49

System 1: Treble and Bass staves. Treble staff features a melodic line with a long slur across measures 1-4, marked *p dolce e semplice*. Bass staff features a harmonic accompaniment. Measure 5 starts with *mf*, and measure 8 ends with *p*.

System 2: Treble and Bass staves. Treble staff features a melodic line with a long slur across measures 1-4, marked *p dolce e semplice*. Bass staff features a harmonic accompaniment. Measure 5 starts with *mf*, and measure 8 ends with *p*.

Hand positions for L., T., and M. staves:

Staff	Measure 1	Measure 2	Measure 3	Measure 4	Measure 5	Measure 6	Measure 7	Measure 8	Measure 9	Measure 10	Measure 11	Measure 12	Measure 13	Measure 14	Measure 15	Measure 16	Measure 17	Measure 18	
L.																			
T.																			
M.																			

System 3: Treble and Bass staves. Treble staff features a melodic line with a long slur across measures 1-4, marked *p dolce e semplice*. Bass staff features a harmonic accompaniment. Measure 5 starts with *mf*, and measure 8 ends with *p*.

rit. . . .

L.
 T.
 M.

rit. . . .

50

(♩ = ♩) (♩ = 88)

L.

3	3	3	3	3	3	3	3	3	(3)	(3)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	(5c)	(3)	4	4	4	4	4	4	5a	3	3	3	3	4	5a	3	3	3	3
5a	5a	5a	5a	5a	5a	5a	5a	5a	(5c)	(3)	5a	5a	4	5a	5a	5b	5b	3	3	3	3	4	5b	5c	5d	5c	4

T.

3	3	3	3	3	3	3	3	3	(3)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	(5c)	4	4	4	4	4	4	5b	5b	3	3	3	3	4	5c	5c	5d	5e	4

M.

(♩ = ♩) (♩ = 88)

First system of piano accompaniment. It consists of two staves (treble and bass clef). The music is in 2/4 time and features dynamic markings of *sf*, *ff*, *mf*, and *ff*. A complex chordal texture is present in the right hand, with a 7-measure arpeggiated figure in the middle section.

Second system of piano accompaniment, identical in notation to the first system. It includes dynamic markings of *sf*, *ff*, *mf*, and *ff*.

Vocal parts for L., T., and M. The L. part consists of eighth-note runs with fingerings: 3/4, 3/4/5a/5b, 3/4/5a, 3/4/5a, 3/5c, 3, 3/4, 3/4, 3/4, 3/4. The T. part consists of quarter notes with fingerings: 3/4, 3/4/5b/5e, 3/4/5a, 3/4/5a, 3, 3/5e, 3/4, 3/4, 3/4. The M. part consists of quarter notes with slurs.

Third system of piano accompaniment, identical in notation to the first two systems. It includes dynamic markings of *sf*, *ff*, *mf*, and *ff*.

APPENDIX B

To Carlos Chávez

SHORT SYMPHONY

(No 2)

AARON COPLAND

edited and re-barred by Ryan Dudenbostel

Tempo ♩ = 144 (incisivo)

I

Piccolo

Flute I, II

Oboe I, II

English Horn

Clarinet in B \flat I, II

Bass Clarinet in B \flat

Bassoon I, II

Contrabassoon

Horn in F I, II

Trumpet I, II in C

Piano

Violin I div.

Violin II

Viola div.

Violoncello div.

Contrabass

Tempo ♩ = 144 (incisivo)

cui-vré

pizz. *arco* *pizz.* *arco* *pizz.*

p *mf* *f* *sf* *ppp* *fpp* *f* *p* *f* *f* *f*

8va

1.

Picc.
 Fl. I, II
 Ob. I, II
 E. H.
 I
 Cl.
 II
 B. Cl.
 Bsn. I, II
 Hn. I
 Hn. III
 Pno.
 Vln. I div.
 Vln. II
 Vla. div.
 Vc. div.

Musical score for page 114, featuring Piccolo, Flutes, Oboes, Horns, Clarinets, Bassoon, Piano, Violins, Viola, and Cello. The score includes various dynamics such as *fp*, *f*, *mf*, *p*, and *ff*, as well as performance instructions like *arco*, *pizz.*, and *cuicéré*. A first ending bracket is present in the Piccolo part.

(L'istesso tempo)

Fl. I, II
Ob. I
Cl. I, II
B. Cl.
Bsn. I, II
Cbsn.
Hn. I
Hn. III

(L'istesso tempo)

Vln. I
Vla.
Vc.
Cb.

E. H.
Bsn. I, II
Cbsn.
Hn. I, II
Hn. III, IV
Vln. I
Vln. II
Vla.
Vc.
Cb.

3

Picc. mf

Fl. I. II f p

Ob. I. II f sf

E. H.

Cl. I. II f mf p

B. Cl.

Bsn. I. II f sf p

Cbsn. sf p

Hn. I sf (*cuiéré*)

Hn. II *senza sord.* f

Hn. III

Hn. IV *senza sord.* f

Pno. mf

Vln. I f p Half *sul D*

Vln. II f Half *pizz.*

Vla. f Half *pizz.*

Vc. f p Half

Cb. f

Picc. *fp* *mf* *f* *f*

Fl. I, II *fp* *mf* *f* *f*

Ob. I, II *mf* *fp* *mf* *f* *f*

E. H. *f*

Cl. I, II *p* *f*

B. Cl. *p*

Hn. I *f*

Hn. III *f*

Pno. *f* *mf* *f*

Vln. I *pizz.* *arco* *sw¹* *pizz.* *unis. Tutti arco* *f*

Vln. II *arco* *p* *pizz.* *mf* *arco Tutti* *ff* *f*

Vla. *arco* *mf* *f* *pizz.* *f* *arco Tutti* *ff*

Vc. *pizz.* *p* *mf* *ff*

4

Picc. *p* *mf*

I Fl. *p* *mf*

II Fl. *p* *mf*

Ob. I, II *mf* *p*

E. H. *f* *mf*

Cl. I, II *mf* *p* *mf*

B. Cl. *mf*

I, II Hn. *p* *fp*

III, IV *p*

4

Vln. I *pizz.* *arco* *fpp* *mf* *fp*

Vln. II *ff* *ff* *pizz.* *mf* *mf*

Vla. *ff* *ff* *f* *arco* *fpp* *mp*

Vc. *ff* *ff* *div.* *p* *unis.* *fp*

Cb. *f* *pizz.*

Picc. *ff*

Fl. I, II *ff* a2

Ob. I, II *ff* a2

E. H. *ff*

Cl. I, II *ff* a2

Bsn. I, II *f* *ff* a2

Cbsn. *f*

I, II *f*

Hn. *f*

III, IV *f* *ff*

Tpt. I, II *f*

Pno. *ff*

Vln. I *ff*

Vln. II *ff*

Vla. *ff*

Vc. *ff*

Cb. *ff* arco

5

Picc. *ff*

Fl. I, II *f* *ff* a2

Ob. I, II *f* *ff* a2

E. H. *f* *ff*

Cl. I, II *f* *ff* a2

Bsn. I, II *f* *ff* a2

Cbsn.

I, II

Hn. III, IV

I

Tpt. II *f*

Pno. *ff*

Vln. I *f* *pizz.*

Vln. II *f* *div.* *unis.* *pizz.*

Vla. *f* *pizz.*

Vc. *f*

Cb. *f*

Picc.
Fl. I. II
Ob. I. II
E. H.
Cl. I. II
B. Cl.
Bsn. I. II
Cbsn.

ff, *ff*, *ff*, *ff*, *ff*, *ff*, *ff*, *ff*
a2
mp, *p*, *mp*, *mp*, *ff*, *ff*, *ff*, *ff*

I. Solo
II. Solo

I. II
Hn.
III. IV
Tpt. I. II

ff, *ff*, *ff*, *ff*, *ff*, *ff*, *ff*, *ff*
ff, *ff*, *ff*, *ff*, *ff*, *ff*, *ff*, *ff*
con sord.
II. *fp*, *fp*

Pno.

ff, *p*

Vln. I
Vln. II
Vla.
Vc.
Cb.

div. arco, *ff*, unis., *ff*, *ff*, *ff*, *f*, *ff*, *ff*, *f*
gliss., *ff*, *ff*, *ff*, *ff*, *ff*, *ff*, *ff*, *ff*

9

Fl. I, II *p* *Soli* *p*

Ob. I *Solo* *p*

E. H. *Solo* *mp*

Cl. I, II *I. Solo* *mp*

B. Cl. *p*

Bsn. I *p* *Solo* *p*

Cbsn. *p*

Tpt. I, II *I.* *p*

Pno. *p*

Vln. I div. *con sord.* *p*

Vln. II div. *pizz.* *p*

Vc. *col legno* *p*

Cb. *col legno* *p* *pizz.* *p*

9

Fl. I, II *p*

Ob. I *p* Solo

Cl. I *p*

B. Cl. *p*

Bsn. I *p*

Vln. I (unis.) *mp* senza sord. *v* *p spicc.*

Vln. II (unis.) (arco) modo ordinario *p*

Vla. arco *p*

Vc. (arco) modo ordinario *mp sf p spicc.*

Fl. I, II *mp* 10

Ob. I *mp*

Cl. I *mp* Solo

Bsn. I *mp*

Hn. I Solo *mp*

Hn. III Solo *mp*

Pno. *p* *swr*

Vln. I *p* *v* 10

Vln. II *p*

Vla. *p*

Vc. pizz. *sf* arco *mf*

Cb. arco *mf*

Cl. I

Bsn. I. II

Cbsn.

I. II

Hn.

III. IV

I

Tpt.

II

Pno.

Vln. I

Vln. II

Vla.

Vc.

Cb.

Picc. *ff* *ff* *ff* *p*

Fl. I, II *ff* *ff* *ff* *p*

Ob. I, II *ff* *ff* *ff* *p*

E. H. *ff* *ff* *ff*

Cl. I, II *ff* *ff* *ff* *p*

B. Cl. *ff marc.*

Bsn. I, II *ff marc.*

Cbsn. *ff marc.*

I, II *ff*

Hn. III, IV *ff*

Tpt. I, II *ff*

Pno. *ff* *ff* *ff* *p*

l.h.

Vln. I *ff* *pizz.* *arco* *div. pizz.* *unis. arco*

Vln. II *ff* *pizz.* *arco* *pizz.* *arco*

Vla. *ff* *pizz.* *arco* *pizz.* *arco*

Vc. *ff*

Cb. *ff*

Picc. *fp*

Fl. I, II *a2 p*

Ob. I, II *a2 fp*

Cl. I, II *a2 fp*

Hn. I *f*

Tpt. II *f*

Pno. *poco marc. p*

Vln. I *Half mf poco marc.*

Vln. II *Half mf poco marc.*

Vla. *Half mf poco marc. pizz. ff*

Vc. *ff pizz.*

Cb. *ff pizz.*

Picc.

Fl. I, II *a2*

Ob. I, II *a2*

Hn. I, II

Tpt. I, II *f*

Pno.

Vln. I *pizz. Tutte (pizz.)*

Vln. II *pizz. Tutte (pizz.)*

Vla.

Vc. *f*

Cb. *f*

13

Picc. Solo
p dolce, espress.

I Fl. *p*

II Fl. *p*

E. H. Solo
p dolce

I Cl. *p dolce, espress*

II Cl. *p*

I II Hn. con sord. *p*

III IV Hn. *fp*

I Tpt. I II I. con sord. *p*

Vln. I 4 Soli arco *p dolce espress.*

Vla. 4 Soli arco *p dolce, espress*

sul D Half (arco)

14

I Fl. *p*

II Fl. *p*

E. H. *p*

Cl. I II *p*

Bsn. I *mf*

Cbsn. *mf*

Hn. I senza sord. *p*

Hn. III *p*

I Tpt. Solo (senza sord.) *mf*

II Tpt. *p*

Vln. I Tutti (arco) *f*

Vln. II arco *mf*

Vla. Tutte (arco) *f*

Vc. (pizz.) *mf*

Cb. (pizz.) *mf*

arco *f*

arco *f*

I. II *ff* *a2*
 Hn. *ff* *senza sord.* *a2*
 III. IV *ff*
 Vln. I *ff* *vigoroso*
 Vln. II *ff* *vigoroso*
 Vla. *ff* *vigoroso*
 Vc. *ff* *vigoroso*
 Cb. *ff* *vigoroso*

Ob. I. II *ff*
 E. H. *ff*
 Cl. I. II *ff*
 B. Cl. *ff*
 Bsn. I. II *ff*
 Cbsn. *ff*
 I. II *ff* *a2*
 Hn. *ff* *a2*
 III. IV *ff* *a2*
 III. *ff*
 Tpt. I. II *f* *senza sord.* *ff* *a2*
 Vln. I *ff*
 Vln. II *ff*
 Vla. *ff*
 Vc. *ff*
 Cb. *ff*

15

Picc. *ff* *ff* *f* *ff* *ff* *8va-1*
 Fl. I, II *ff* *ff* *f* *ff* *ff* *a2* *8va-1*
 Ob. I, II *ff* *ff* *ff* *ff*
 E. H. *ff* *ff* *ff* *ff*
 Cl. I, II *ff* *ff* *ff* *ff*
 B. Cl. *ff* *ff* *ff* *ff*
 Bsn. I, II *ff* *ff* *ff* *ff* *a2*
 Cbsn. *ff* *ff* *ff* *ff*
 I, II *a2* *ff marc.*
 III, IV *a2* *ff marc.*
 Tpt. I, II *a2* *ff marc.*
 Pno. *ff* *ff* *ff*
 Vln. I *ff* *ff* *f* *f* *ff* *8va-1*
 Vln. II *ff* *ff* *ff*
 Vla. *ff* *ff* *ff*
 Vc. *ff* *ff* *f* *f* *ff*
 Cb. *ff* *ff* *ff* *ff*

16

Picc.

Fl. I, II

Ob. I, II

E. H.

Cl. I, II

B. Cl.

Bsn. I, II

Cbsn.

I, II

Hn.

III, IV

Tpt. I, II

ff

16

Vln. I

Vln. II

Vla.

Vc.

Cb.

17

Picc.

To Alto Fl.

Fl. I

Alto Flute Solo
mf

Fl. II

p

Ob. I. II

I. Solo
p

E. H.

Cl. I. II

I.
p

B. Cl.

fff

Bsn. I. II

fff
a2

Cbsn.

fff

I. II

Hn.

III. IV

Tpt. I. II

Pno.

8va

fff

ff

p

17

Vln. I

fff

Vln. II

fff

pizz.

arco

Vla.

fff

gliss.

ff

p

Vc.

fff

gliss.

ff

p

Cb.

fff

pizz.

div. arco

ff

p

III

27 Tempo ♩ = 144 (preciso e ritmico)

Flute I. II
I
Oboe
II
English Horn
Clarinet in B \flat
I
II
Bass Clarinet in B \flat
Solo *p*
Bassoon I. II
II. *p*
I. *mp*
Contrabassoon
I. II
Horn in F
III. IV
I
Trumpet in C
II
con sord. *sf*
con sord. *sf*
Piano
27 Tempo ♩ = 144 (preciso e ritmico)
Violin I
Half *p*
Violin II
(Half)
Viola
(Half)
pizz. Tutte *p*
Violoncello
div. pizz.
Contrabass
p

Ob. I
Ob. II
E. H.
Cl. I
Cl. II
B. Cl.
Bsn. I, II
Tpt. I, II
Pno.

1.2. 8 Soli (div.) con sord.
3.4.
5.6. #
7.8. **pp**

Vln. I
Vln. II div.
Vla.

Fl.
Ob. I
Cl. I
Cl. II
Bsn. I
Vln. I
Vln. II div.

Fl. I *pp* *p*

Fl. II *pp* *p*

Ob. I

Cl. I *p*

Cl. II *p*

B. Cl. *pp* *p*

Bsn. I *p*

Bsn. II *pp* *p*

Hn. I Solo *p*

Tpt. I senza sord. *p* Solo *mf*

Vln. I con sord. *p*

Vln. I div. con sord. *p*

Vln. II senza sord. *mp*

Vln. II div. senza sord. *mp*

Vla. (senza sord.) arco *mp*

Vla. div. arco con sord. *p*

Vc. (senza sord.) *p*

Vc. div. *mp*

Fl. I, II: *a2*, *mf*, *f*, *ff*, *ff*
 Ob. I, II: *mf*, *f*, *ff*, *ff*
 E. H.: *ff*
 Cl. I, II: *f*, *ff*, *ff*
 B. Cl.: *Solo*, *mf*, *f*, *ff*, *ff*
 Bsn. I, II: *mf*, *f*, *ff*, *ff*
 Cbsn.: *ff*
 Hn. I, II: *Solo*, *mf*, *ff*, *ff*
 Hn. III, IV: *Solo*, *mf*, *ff*, *ff*
 Tpt. I, II: *f*, *ff*, *ff*
 Vln. I div.: *senza sord.*, *p cresc.*, *ff*
 Vln. II div.: *senza sord.*, *p cresc.*, *ff*
 Vla. div.: *senza sord.*, *p cresc.*, *ff*
 Vc. div.: *p cresc.*, *ff*
 Cb.: *ff*, *unis. arco*

Fl. I. II
 Ob. I. II
 E. H.
 Cl. I. II
 B. Cl.
 Bsn. I. II
 Cbsn.

I. II
 Hn.
 III. IV.
 Tpt. I. II
 Pno.

Vln. I
 Vln. II
 Vla.
 Vc.
 Cb.

Ob. I, II
E. H.
Bsn. I, II
Cbsn.
I, II
Hn.
III, IV
Tpt. I, II
Pno.
Vln. I
Vln. II
Vla.
Vc.
Cb.

f
f
f
ff marc.
f
ff
ff
f
ff
ff
ff
ff
ff
ff
f

a2
ff marc.
f
ff sf marc.

sempre marc.
ff
f
f

139

Picc. *f* *ff*

Fl. I. II *f* *ff*

Ob. I. II *f*

E. H. *f*

Cl. I. II *f* *ff*

Bsn. I. II *sf* *ff*

Cbsn. *sf* *ff*

I. II

Hn.

III. IV

Tpt. I. II *f*

Pno. *f*

Vln. I *f*

Vln. II *f*

Vla. *sf*

Vc. *sf*

Cb. *sf*

Picc. *f sf sf sf*
 Fl. I
 Ob. I *Solo mp sf*
 Cl. I/II *f sf sf sf sf*
 Bsn. I/II *a2 I. II. mp*
 Cbsn. *f sf*
 Hn. I *f sf sf*
 Hn. III *f sf*
 Tpt. I *con sord. sfz Solo(con sord.) mp*
 Pno.
 Vln. I *fpp f ff sf sf sf*
 Vln. II *fpp f ff sf sf sf*
 Vla. *fpp p f ff sf*
 Vc. *fpp ff sf*
 Cb. *ff pizz. sf*

Picc. *ff*

Fl. I *ff*

Ob. I Solo *mp*

B. Cl. Solo *ff* *mp*

I *mp* *ff* *mp*

Bsn. II *ff*

Cbsn. *ff*

I. II Solo *mp*

Hn. *ff*

III. IV IV. *ff*

Tpt. I

Pno. *ff*

Vln. I *mf* *ff* *sf*

Vln. II *mf* *ff* *sf*

Vla. *ff* *sf*

Vc. *p* *arco* *ff* *sf*

Cb. *f < ff* *sf*

33 *leggiere ma marc.*

Solo *p*

Solo *p*

Cl. II *p*

B. Cl. I *p*

Bsn. I. II *p*

Cbsn. *p*

Hn. II *p*

Hn. IV *p*

Vln. I *pp*

Vln. II *pp*

Vla. *pp*

Cb. *p*

II. Solo *p*

col legno

col legno

col legno

pizz.

34

Solo *p*

Ob. I *p*

Cl. I *p*

B. Cl. *p*

Bsn. I. II *p*

Cbsn. *p*

Vln. I *p*

Vln. II *p*

Vla. *p*

Cb. *p*

Solo *p*

II. *p*

(modo ord.)
jeté v

p

pizz.
l.h.

arco
v

pizz.
jeté

arco
jeté

Fl. I

Ob. I

Cl. I

Bsn. I

Cbsn.

Tpt. I

Pno.

Vln. I

Vln. II

Vla.

Vc.

f

(con sord.)

f

secco

f

secco

f

(modo ord.)

f

pizz.

(modo ord.)

sub. f

f

sf

Hn. I, II

I

Tpt. II

Vln. I

Vln. II

Vla.

Vc.

Cb.

35

f marc.

con sord.

mf marc.

con sord.

mf marc.

35

f

arco

f marc.

f

f marc.

(pizz.)

f

Ob. II

E. H.

Bsn. I

I. II

Hn.

III. IV

I

Tpt.

II

f

f marc.

f

Vln. I

Vln. II

Vla.

Vc.

Cb.

f

pizz.

arco

stacc.

Ob. II

E. H.

Bsn. I

I. II

Hn.

III. IV

I

Tpt.

II

Vln. I

Vln. II

Vla.

Vc.

Cb.

a2

f

arco

pizz.

Fl. I II
Ob. I II
E. H.
Cl. I II
Bsn. I II
Hn. I II
III. IV
Tpt. I II
Pno.
Vln. I II
Vla.
Vc.
Cb.

f marc.
ff
mp
f
ff
mp
f marc.
ff
mp
f marc.
ff
f
f marc.
ff
mf
Solo
ff
div.
jeté
pizz.
f
f
f
f
f

1 Fl. I *f* *p*

2 Fl. II *f*

3 Ob. I Solo *f*

4 Ob. II *f*

5 E. H. Solo *mf*

6 Cl. I Solo *f*

7 Cl. II *f*

8 B. Cl. *f*

9 Bsn. I *f*

10 Bsn. II

11 Cbsn. *f*

12 Tpt. I *mf*

13 Tpt. II (con sord.) *mf*

14 Pno.

15 Vln. I arco *jeté* *v*

16 Vln. II arco *jeté* *v* unis. *f*

17 Vla. *f*

18 Vc.

19 Cb. (pizz.) (pizz.)

38

Ob. I. II *ff marc.*

E. H. *ff marc.*

Cl. I. II a2

Bsn. II *ff*

Cbsn. *ff*

I. II *ff marc.* senza sord.

Hn. III. IV *ff marc.* senza sord.

I *ff marc.* senza sord. *f*

Tpt. II *ff marc.* senza sord.

Pno. *ff marc.*

38

Vln. I unis. *ff marc.* *f*

Vln. II *ff* *f* div.

Vla. arco *ff marc.* *f* arco div.

Vc. *f* *sim.*

Cb. *f* *sim.*

Detailed description: This page of a musical score covers measures 38 to 43. The score is for a full orchestra. The woodwind section (Ob. I & II, E. H., Cl. I & II, Bsn. II, Cbsn.) plays a rhythmic pattern of eighth notes with accents, marked *ff marc.* or *ff*. The brass section (I. II, Hn. III & IV, Tpt. I & II) plays a similar rhythmic pattern, also marked *ff marc.* or *ff*. The strings (Vln. I & II, Vla. div., Vc., Cb.) play a pattern of eighth notes, with Vln. I and Vla. marked *ff marc.* and *f*, and Vc. and Cb. marked *f* and *sim.*. The piano part (Pno.) plays a complex rhythmic pattern of eighth notes, marked *ff marc.*. The score includes various dynamics, accents, and performance instructions like 'senza sord.' and 'div.'. A box with the number '38' is placed at the beginning of the first system and above the Vln. I staff in the second system.

39

Musical score for measures 39-40. The score includes parts for Fl. II, Ob. I, B. Cl., Bsn. I, Hn. I, Tpt. I, and Vla. The dynamics range from *pp* to *sf*. The Vla. part is marked *Half, sul tasto pp spiccato*. The Bsn. I part has dynamics *sf* and *sim.*

40 (♩=132)

Musical score for measures 40-42. The score includes parts for Fl. II, Ob. I, E. H., Cl. I. II, B. Cl., Bsn. I. II, Hn. I, Vln. I, Vla., and Vc. The dynamics range from *dim.* to *p espress.*. The Hn. I part is marked *con sord. pp*. The Vln. I, Vla., and Vc. parts are marked *Solo V p espress.*

(Alto Flute) Solo

41

p espress.

Ob. I

E. H.

Cl. I, II

B. Cl.

Bsn. I

Vln. I

Vla.

Vc.

2 Solo

p espress.

Solo

p espress.

Solo

p espress.

A. Fl.

Cl. I, II

B. Cl.

Bsn. I

Vln. I

Vla.

Vc.

pp

Half

p leggiero

42

Solo

pp

Solo

p dolce e cant.

Solo

p

Hn. II

con sord.

pp

Vla.

Picc. *p*

Fl. II *p*

Ob. I *Solo p dolce e cant.*

E. H.

I *Solo p dolce e cant.*

Cl. II *p*

B. Cl. *p*

Hn. I, II *p con sord.*

Vln. I *Half p leggiero*

Vln. II *Half p leggiero*

Vla. *p*

Picc. (moving forward)

Fl. II (moving forward)

Ob. I (moving forward)

I (moving forward)

Cl. II (moving forward)

B. Cl. (moving forward)

Hn. II (moving forward)

Vln. I *Tutti mp cresc. mf*

Vln. II *Tutti mp cresc. mf*

Vla. *Tutti mp cresc. mf*

Vc. *Tutti stacc. mp marc. cresc. mf*

Cb. *mp cresc. mf*

44 (♩ = 144)

A. Fl. *ff*

Fl. II *ff*

Ob. I. II *ff*

E. H. *ff*

Cl. I. II *ff*

B. Cl. *ff*

Bsn. I. II *ff*

Cbsn. *ff*

I. II *senza sord.*

Hn. *III.*

III. IV *ff*

Pno. *ff*

I. cuivré

44 (♩ = 144)

Vln. I *f* *ff*

Vln. II *f* *ff* *ff*

Vla. *f* *ff (exaggerate all accents)*

Vc. *pizz.* *f* *arco* *ff*

Cb. *arco* *f* *ff*

(exaggerate all accents)

Picc. *mf sf f*

Fl. II *mf sf f*

Ob. I *mf sf f*

E. H. *mf sf f*

Bsn. I II *f*

Hn. I

I *senza sord. mf sf mf*

Tpt. II *senza sord. mf*

Vln. I *div. v. (exaggerate all accents) mf sf f*

Vln. II *div. v. (exaggerate all accents) mf sf f*

Vla. *f*

Vc. *v.*

Cb.

Picc. *cresc.* *ff* *fff*

Fl. II *cresc.* *ff* *fff*

Ob. I *cresc.* *ff*

E. H. *cresc.* *ff*

Bsn. I, II *cresc.* *a2*

Cbsn.

I, II *I. Solo* *ff*

Hn. *III.* *ff*

III, IV *ff*

I *cresc.* *ff*

Tpt. II *cresc.* *ff* *f*

Vln. I *cresc.* *ff* *fff*

Vln. II *cresc.* *sf* *fff*

Vla. *cresc.* *sf* *fff*

Vc. *cresc.* *ff*

Cb. *cresc.*

Picc. *ff*

A. Fl. *ff*

Fl. II *ff*

Ob. I. II *ff*

E. H. *ff*

Cl. I. II *ff*

B. Cl. *ff*

Bsn. I. II *ff* a2

Cbsn. *ff*

I. II *ff*

Hn. III. IV *ff*

I. Tpt. *ff*

II

Pno. *ff*

Vln. I *ff* (8)-----1

Vln. II *ff*

Vla. *ff*

Vc. *ff*



Picc.
 A. Fl.
 Fl. II
 Ob. I. II
 E. H.
 Cl. I. II
 Bsn. I. II
 Cbsn.
 I. II
 Hn.
 III. IV
 Tpt. I. II
 Pno.
 Vln. I
 Vln. II
 Vla.
 Vc.
 Cb.

ff
ff
ff
f
f
I. Solo
ff
ff marc.
ff marc.
ff marc. sempre
ff marc. sempre
arco
f

Picc. *fff*

A. Fl. *fff*

Fl. II *fff*

Ob. I. II *fff*

E. H. *ff*

Cl. I. II *ff*

B. Cl. *ff*

Bsn. I. II *ff* *marc.*

Cbsn. *ff*

I. II *ff marc.*

III. IV *ff marc.*

I *f*

Tpt. II *ff*

Pno. *sm*

Vln. I *fff*

Vln. II *fff*

Vla. *fff*

Vc. *div.*

Cb. *fff* *div.*

Picc. *p dolce e semplice*

A. Fl. *p dolce e semplice*

Fl. II

Ob. I II

E. H.

Cl. I II *sf*

B. Cl. *sf* *p*

Bsn. I II *sf*

Cbsn. *sf* *mf*

I. II *sf*

Hn. III. IV *sf*

Tpt. I II *sf*

Pno.

Vln. I *sf*

Vln. II *sf*

Vla. *sf*

Vc. *unis.* *mf*

Cb. *unis.* *non legato* *meno f* *mf*

Picc. *sim.*

A. Fl. *sim.*

Ob. I *p*

I Cl. *p*

II Cl. *p*

B. Cl.

Cbsn.

Cb. *rit.*

50 (♩ = ♩) (♩ = 88)

Picc.

A. Fl. *f*

Fl. II *f*

Ob. I. II *f*

Cl. I. II *mf*

I. II Hn. *f*

III. IV Hn. *mf*

Tpt. I *f*

Pno. *Solo*

Più mosso

molto accel.

50 (♩ = ♩) (♩ = 88)

Vln. I *f*

Vln. II *mf*

Vla. *mf*

Vc. div. *p. pizz.*

p poco marc.

Più mosso

molto accel.

51 Tempo I (♩ = 144)

Picc. *mf* *più f*
 A. Fl. *mf*
 Fl. II *mf*
 Ob. I *p* *f* *f*
 E. H. *p* *f* *mf* *f*
 I. Cl. *mf* *più f*
 II. Cl. *p* *f* *f*
 B. Cl. *p* *f* *f*
 Bsn. I, II *p* *f* *f*
 I, II Hn. *mf* *f*
 III, IV Hn. *mf* *f*
 Pno. *mf*
 Vln. I *pizz.* *p* *mf* *f*
 Vln. II *div. pizz.* *mf* *f*
 Vla. *pizz.* *p* *mf* *f*
 Vc. *pizz.* *mf* *f*
 div. *pizz.* *mf* *f*
 Cb. *pizz.* *f*

Picc. *ff* *mf* *ff* *ff* *ff*
 A. Fl. *ff* *mf* *ff* *ff* *ff*
 Fl. II *ff* *mf* *ff* *ff* *ff*
 Ob. I. II *ff* *mf* *ff* *ff* *ff*
 E. H. *ff* *mf* *ff* *ff* *ff*
 Cl. I. II *ff* *mf* *ff* *ff* *ff*
 B. Cl. *ff* *ff* *ff* *ff* *ff*
 Bsn. I. II *ff* *ff* *ff* *ff* *ff*
 Cbsn. *ff* *ff* *ff* *ff* *ff*
 I. II *ff* *ff* *ff* *ff* *ff*
 Hn. *ff* *ff* *ff* *ff* *ff*
 III. IV *ff* *ff* *ff* *ff* *ff*
 Tpt. I. II *ff* *ff* *ff* *ff* *ff*
 Pno. *ff* *ff* *ff* *ff* *ff*
 Vln. I *jeté arco* *div.* *un.* *un.* *un.*
 Vln. II *jeté arco* *ff* *mf* *pizz.* *arco*
 Vla. *jeté arco* *ff* *div. in 3* *un.* *un.*
 Vc. *jeté arco* *ff* *div.* *un. pizz.* *arco*
 Cb. *ff* *ff* *ff* *ff* *ff*

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