CHAPTER IV

ANALYSIS OF DAVID SHAW'S SYMPHONY NO. 1

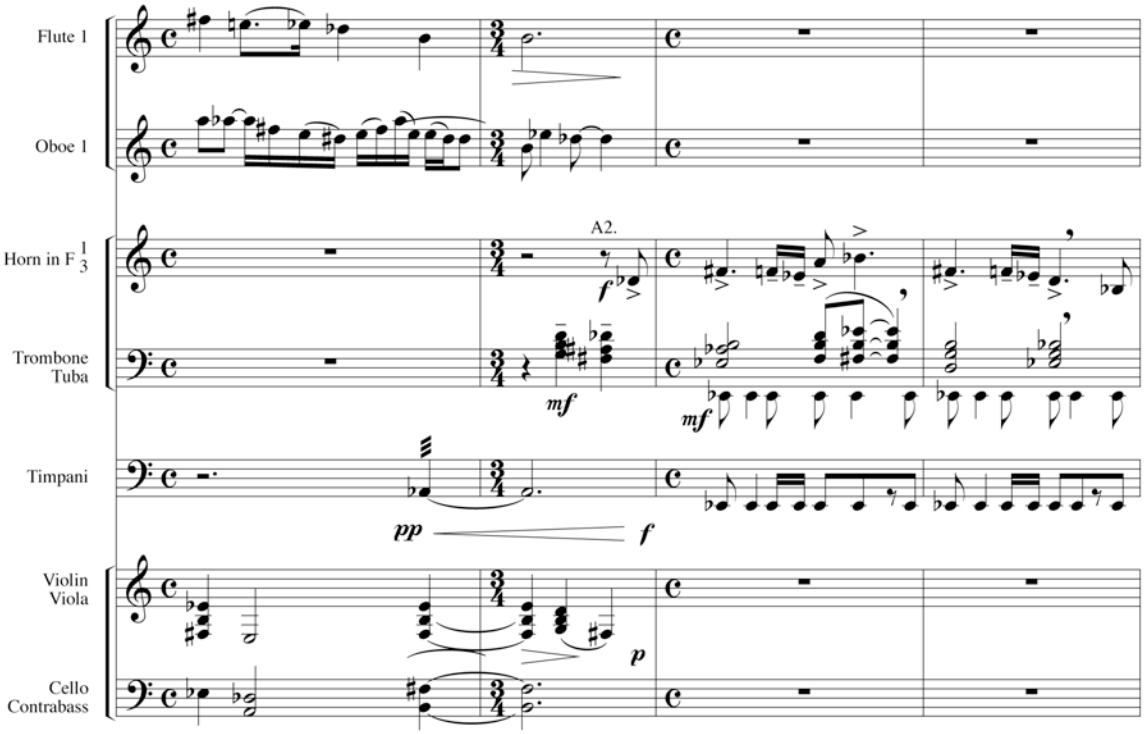
Symphony No. 1 by David Shaw has the same instrumentation as Mennin's Symphony No. 5: piccolo, two flutes, two oboes, two B-flat clarinets, two bassoons, four F horns, three C trumpets, three trombones, four timpani, percussion (snare drum, bass drum, cymbal, and suspended cymbal), violin I, violin II, viola, violoncello, and contrabass. Like Mennin's work, this symphony also has three movements and a similar duration of about twenty-one minutes. The first movement, Con vigore (𝅗𝅥 = 126), lasts about seven minutes and contains 216 measures. The second movement, Canto (Andante Arioso, 𝅗𝅥 = 66-72), lasts about six and one-half minutes and contains ninety-eight measures. The third movement, Allegro tempestuoso (𝅗𝅥 = 126-132), lasts about seven and one-half minutes and contains 543 measures.

The following analysis consists of a discussion of Shaw's Symphony No. 1 in terms of its rhythm and meter, orchestration, harmony, and form. A thorough thematic analysis of each movement then follows.

Rhythm and Meter

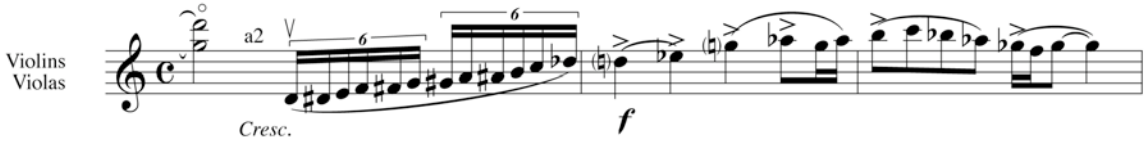
Following Mennin's work, Symphony No. 1 uses standard meters. All three movements stay in their initial time signatures: $\frac{4}{4}$, $\frac{4}{4}$, and $\frac{2}{4}$, respectively, except for the second and third movements, which have occasional meter changes. The second

movement has four additional measures of $\frac{3}{4}$ and one measure each of $\frac{2}{4}$, $\frac{5}{4}$, and $\frac{6}{4}$. The third movement has five additional measures of $\frac{1}{4}$ and one measure of $\frac{3}{4}$. These meter changes alter the length of a phrase's time and align subsequent phrases to the first beat of their measure (see Ex. 87).



Ex. 87. Meter change in the second movement. Symphony No. 1, Movement II, mm. 15-18.

Following Mennin's example, the rhythms in Symphony No.1 are fairly traditional. There are no unusual figures except for occasional irregular divisions at the beginning or ending of phrases (see Ex. 88).

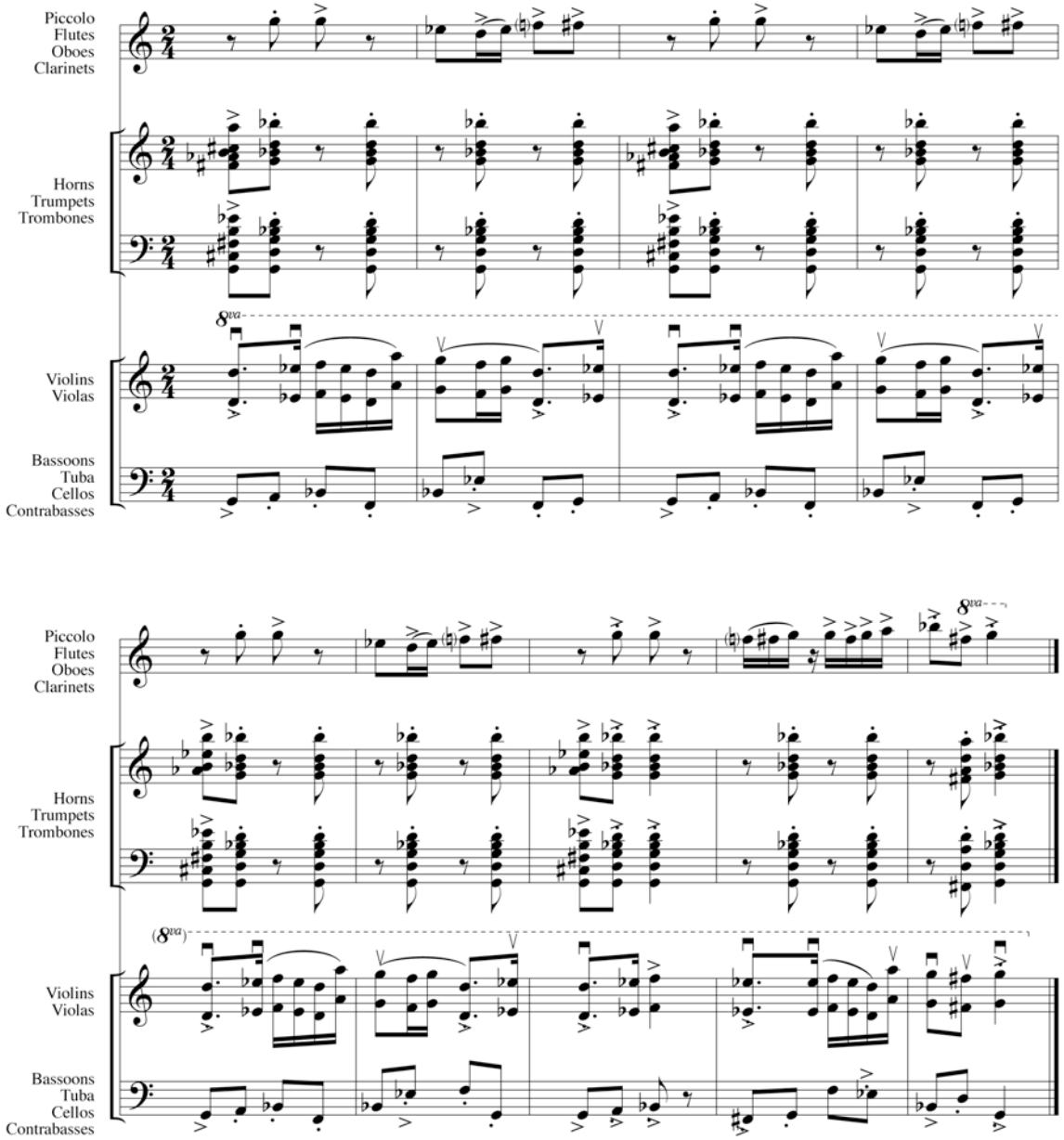


Ex. 88. A sextuplet used in the first movement. Symphony No. 1, Movement I, mm. 25-27.

Rhythmic motives play an essential role in this symphony. As illustrated in the text below, the first and third movements extensively use recurring rhythms to connect their components.

Orchestration

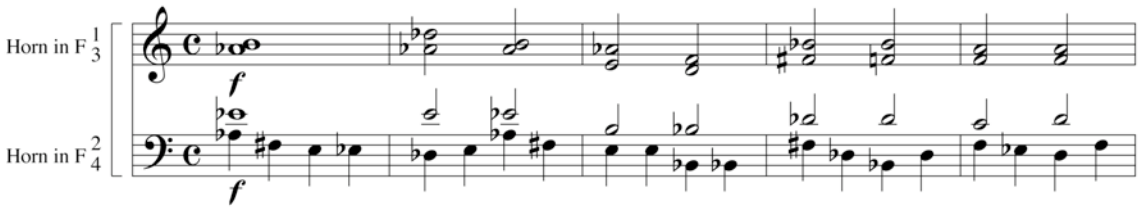
Following Mennin's approach, there is no special notation used in this work, nor are there any unusual orchestral effects or playing techniques. The major sections of the orchestra (winds, brass, percussion, and strings) are treated as groups that usually play the same material together. Correspondingly, the low-pitched instruments of the groups (bassoon, tuba, double bass, and sometimes the third trombone and cello), normally play the bass part together (see Ex. 89).



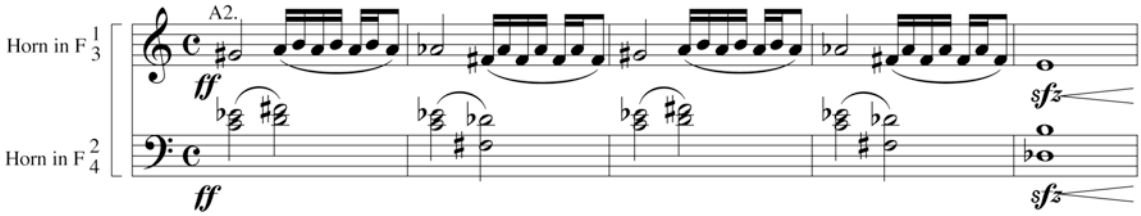
Ex. 89. Material divided among the different sections of the orchestra. Symphony No. 1, Movement III, mm. 535-543.

Symphony No. 1 follows Mennin's scoring method, with the notes of chords distributed from highest to lowest starting from the first chair of each section and working down. Likewise, the horns follow the standard scoring technique of overlapping parts so that the first and third horns take the two highest notes and the second and fourth

take the two lowest. However, the score ordering of horn parts in Symphony No. 1 has the first and third horns on one staff and the second and fourth horns on another. This technique allows for a consecutive distribution of horn notes in the score (see Ex. 90) and is specifically useful when notating a doubled part (see Ex. 91).

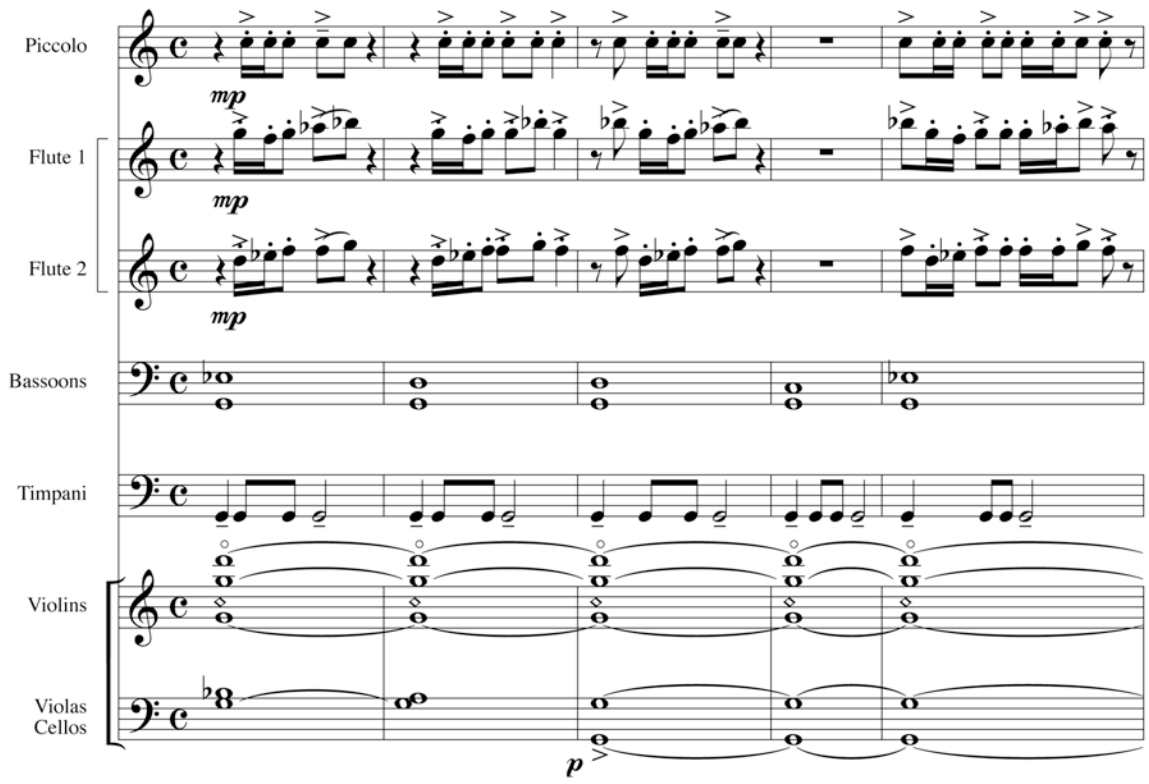


Ex. 90. Consecutive distribution of notes because of horn part arrangement. Symphony No. 1, Movement I, mm. 111-115.



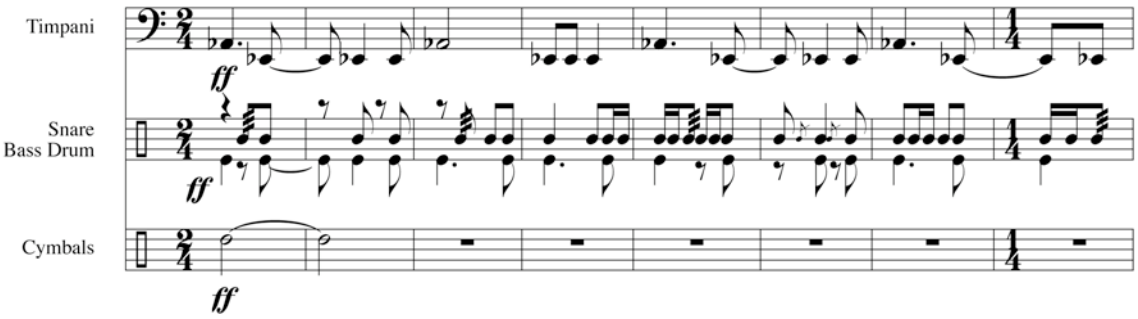
Ex. 91. Simplified notation of doublings because of horn part arrangement. Symphony No. 1, Movement II, mm. 69-73.

Symphony No. 1, like Mennin's Symphony No. 5, contains a piccolo part separate from the two flute parts, requiring three performers total (see Ex. 92).



Ex. 92. The independent piccolo part. Symphony No. 1, Movement I, mm. 7-11.

The percussion section consists of five parts (timpani, snare drum, bass drum, cymbal, and suspended cymbal) divided among four players. The use of percussion is mainly for punctuating musical accents. The only percussion solo occurs in the third movement at measures 454-461 (see Ex. 93).

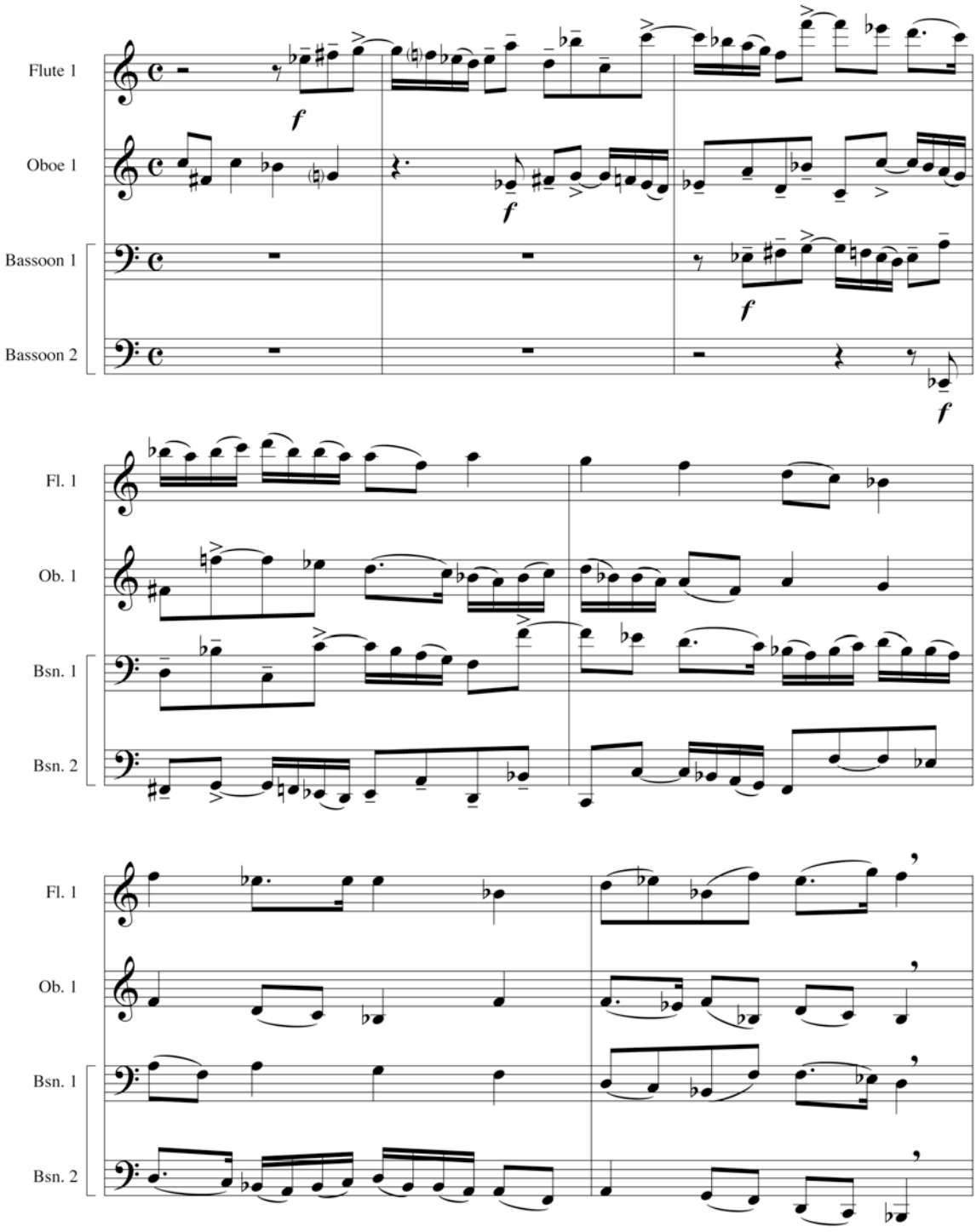


Ex. 93. Percussion solo. Symphony No. 1, Movement III, mm. 454-461.

Harmony

The harmony in Symphony No. 1 is predominantly chromatic, often produced through twentieth-century counterpoint. Contrapuntal writing in this symphony includes canonic, fugal, and multi-thematic techniques, as well as standard developmental techniques such as rhythmic augmentation.

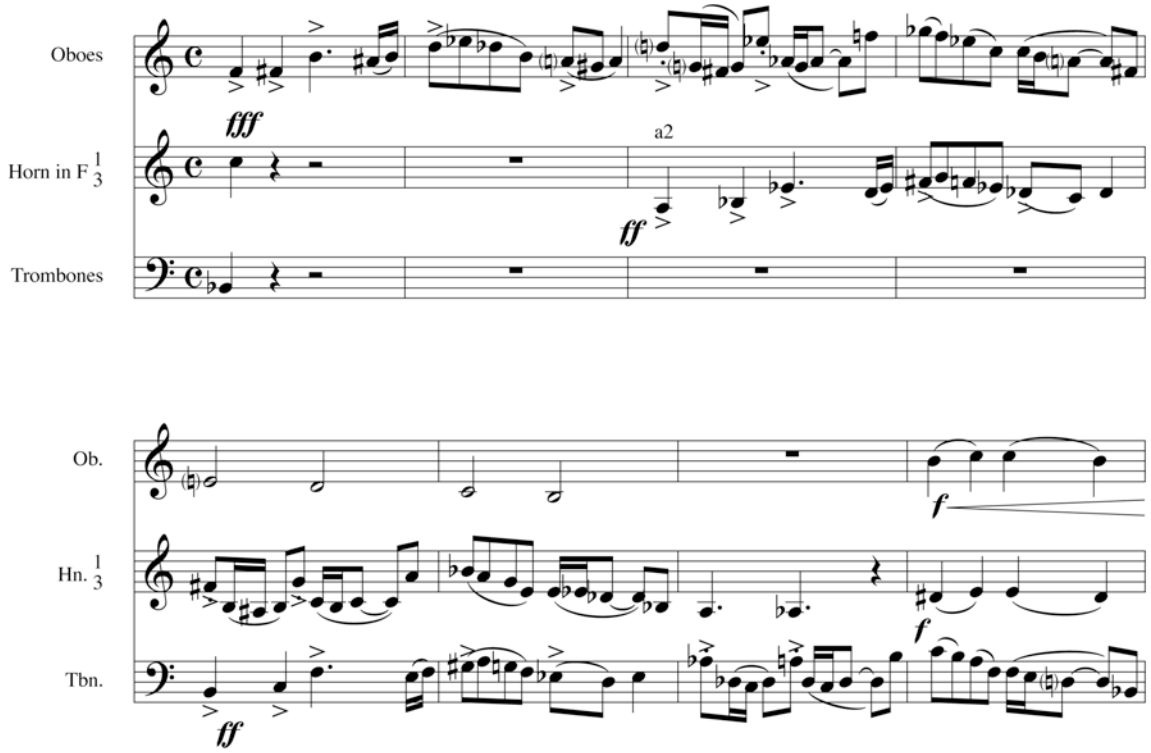
Measures 52-58 of the second movement contain an example of canonic counterpoint (see Ex. 94).



Ex. 94. Canonic counterpoint. Symphony No. 1, Movement II, mm. 52-58.

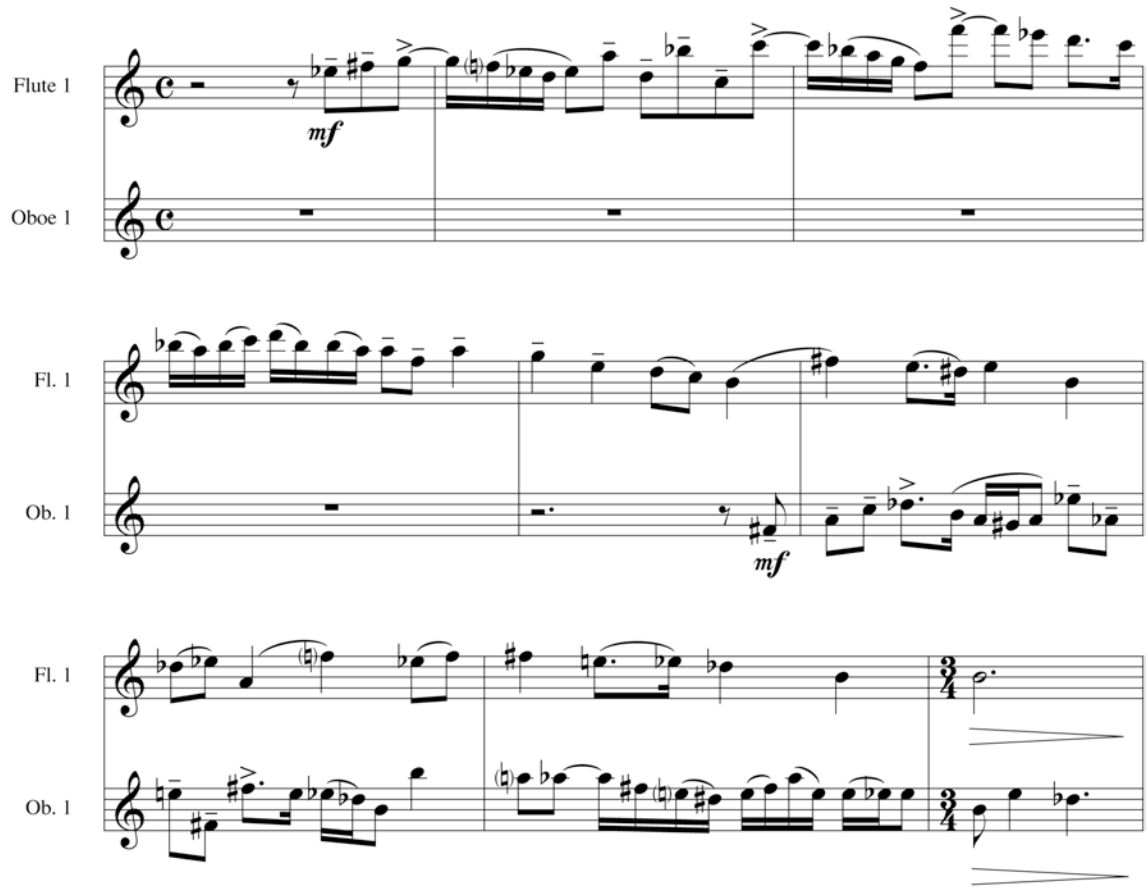
This example contains a unison theme offset by three beats. The prevalence of cross-relations and dissonant intervals reveals the modern nature of this counterpoint.

Measures 158-165 of the first movement illustrates the use of fugal (transposed) counterpoint (see Ex. 95).



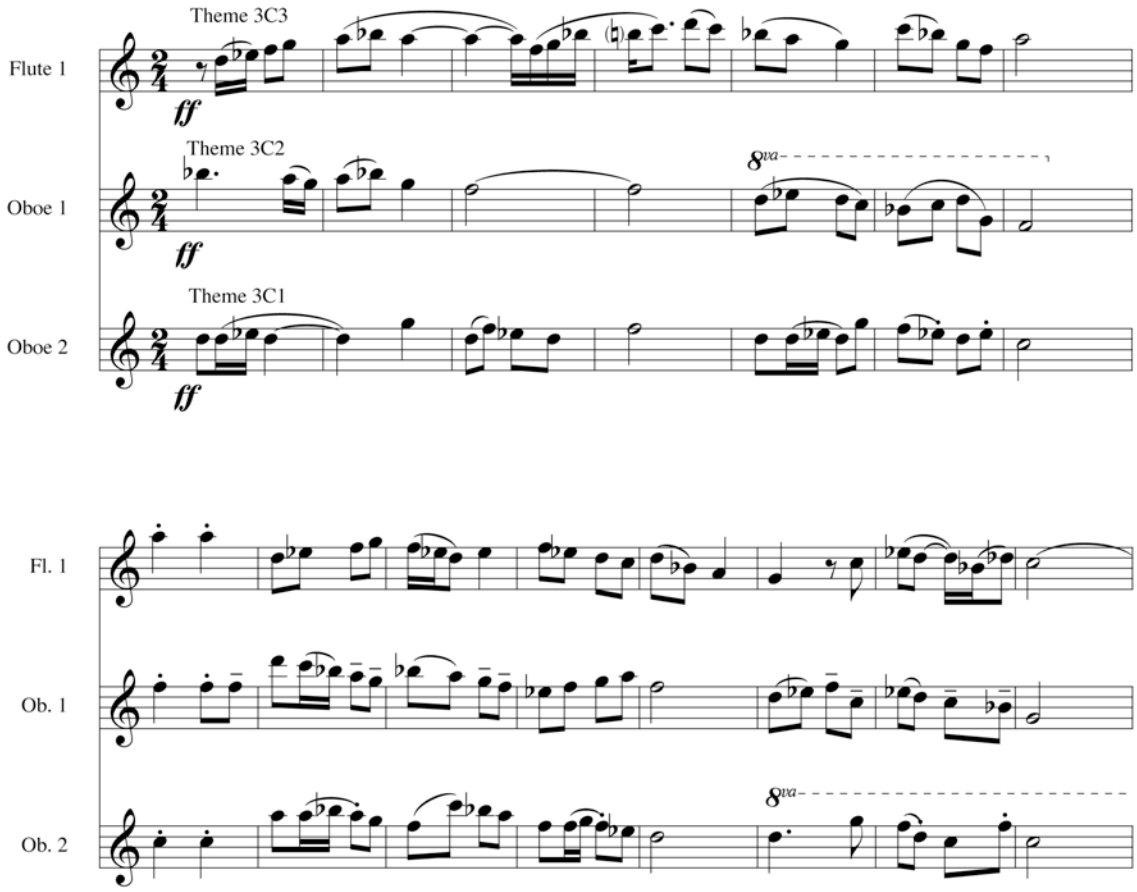
Ex. 95. Three-voice fugal counterpoint offset by descending minor thirds and two measures each. Symphony No. 1, Movement I, mm. 158-165.

This three-voice example combines a theme at the intervals of descending minor thirds and rhythmically offset by two measures. The next example (Ex. 96) combines a theme that is transposed by a major second and also demonstrates the offsetting of a transposed theme by more than an exact number of measures (four and a quarter in this case).



Ex. 96. Fugal counterpoint offset by a major second and four and a quarter measures. Symphony No. 1, Movement II, mm. 8-16.

All three movements contain multi-thematic counterpoint that polyphonically combines multiple themes, as seen in the following example from the third movement (see Ex. 97).



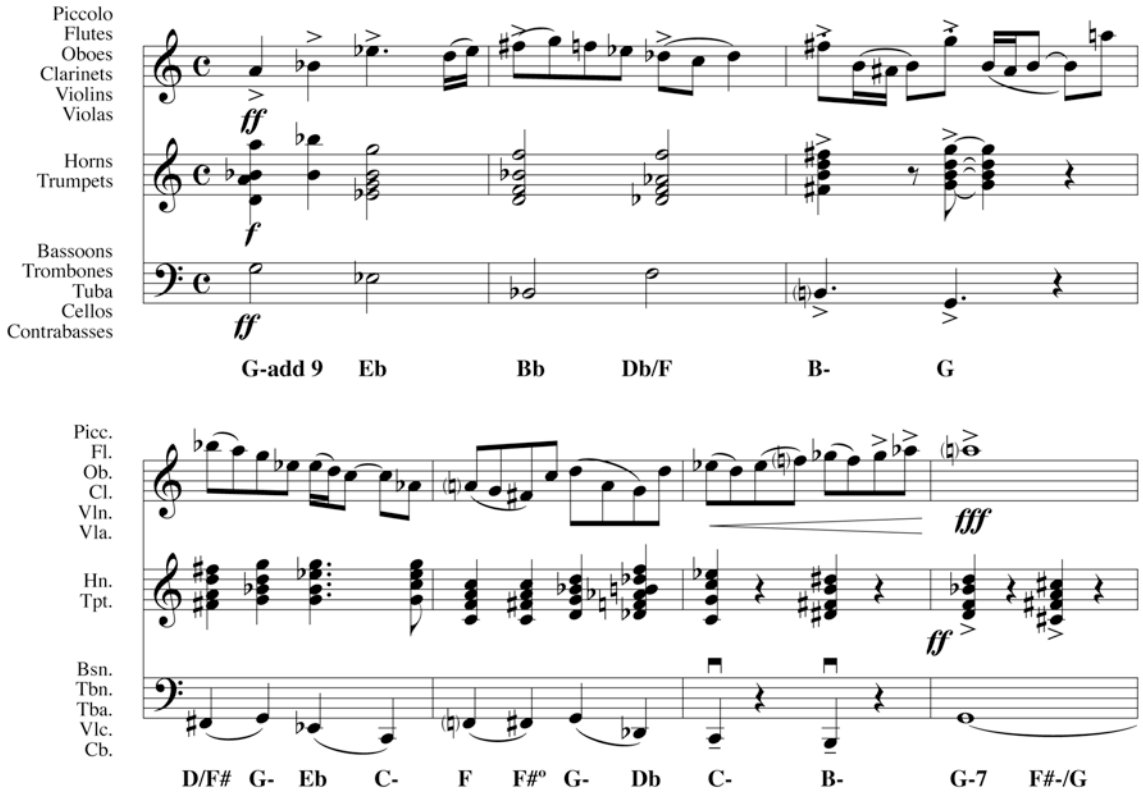
Ex. 97. Multi-thematic counterpoint. Symphony No. 1, Movement III, mm. 239-253.

The previous example is also a demonstration of polyphonic pandiatonicism, since all three themes share the same scale but do not consistently create triadic harmony.

Symphony No. 1 makes extensive use of thematic development, altering themes in standard ways to match the linear counterpoint. For example, the following demonstrates rhythmic augmentation (see Ex. 98).

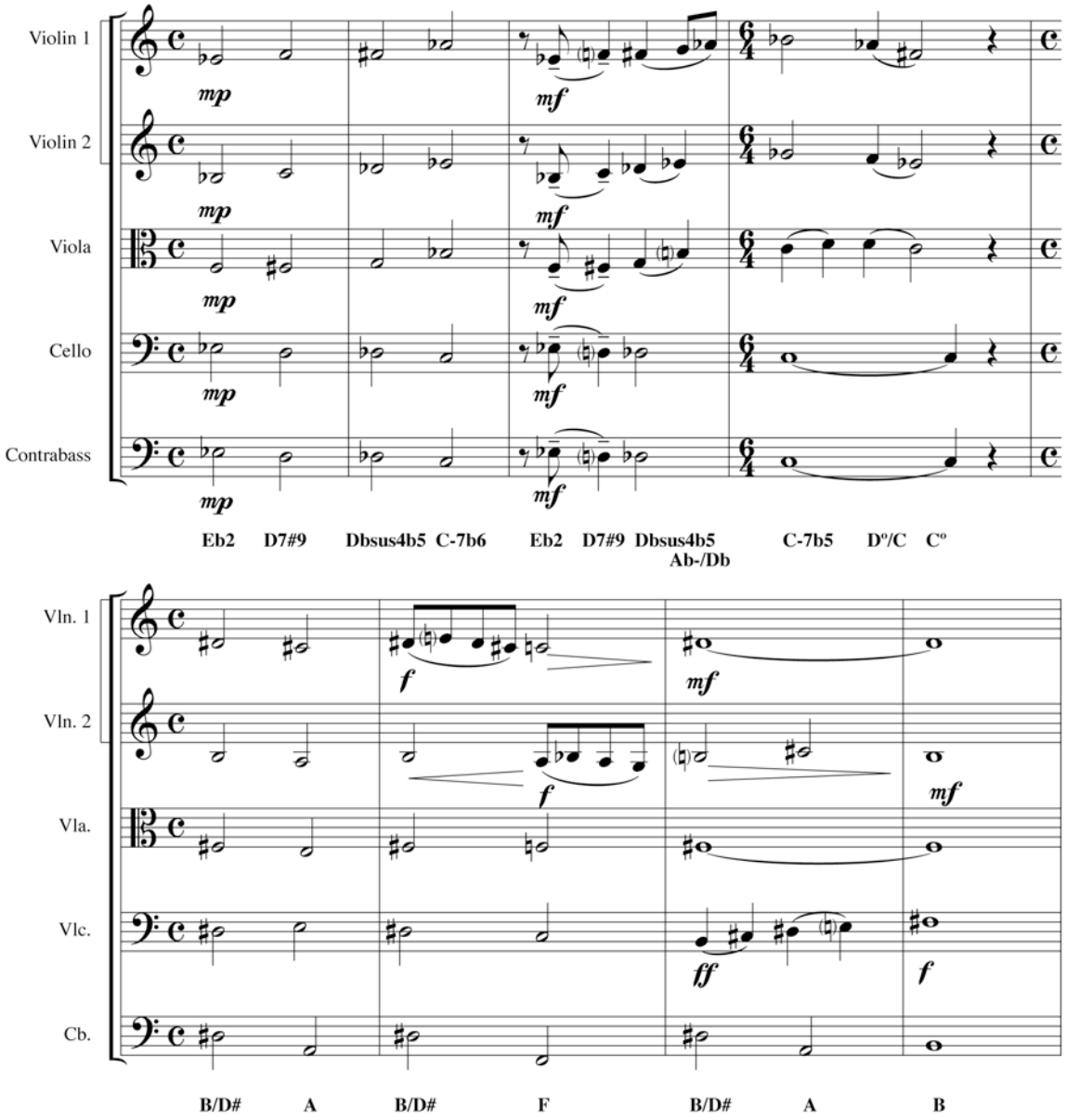
Ex. 98. Original theme and theme with rhythmic augmentation. Symphony No. 1, Movement II, mm. 8-13 and 23-33.

Symphony No. 1 contains homophonic writing, particularly at structural strong points such as near cadences or at the beginning and ends of phrases (see Ex. 99).



Ex. 99. Homophonic and pantriadic writing at the end of the first movement. Symphony No. 1, Movement I, mm. 206-212.

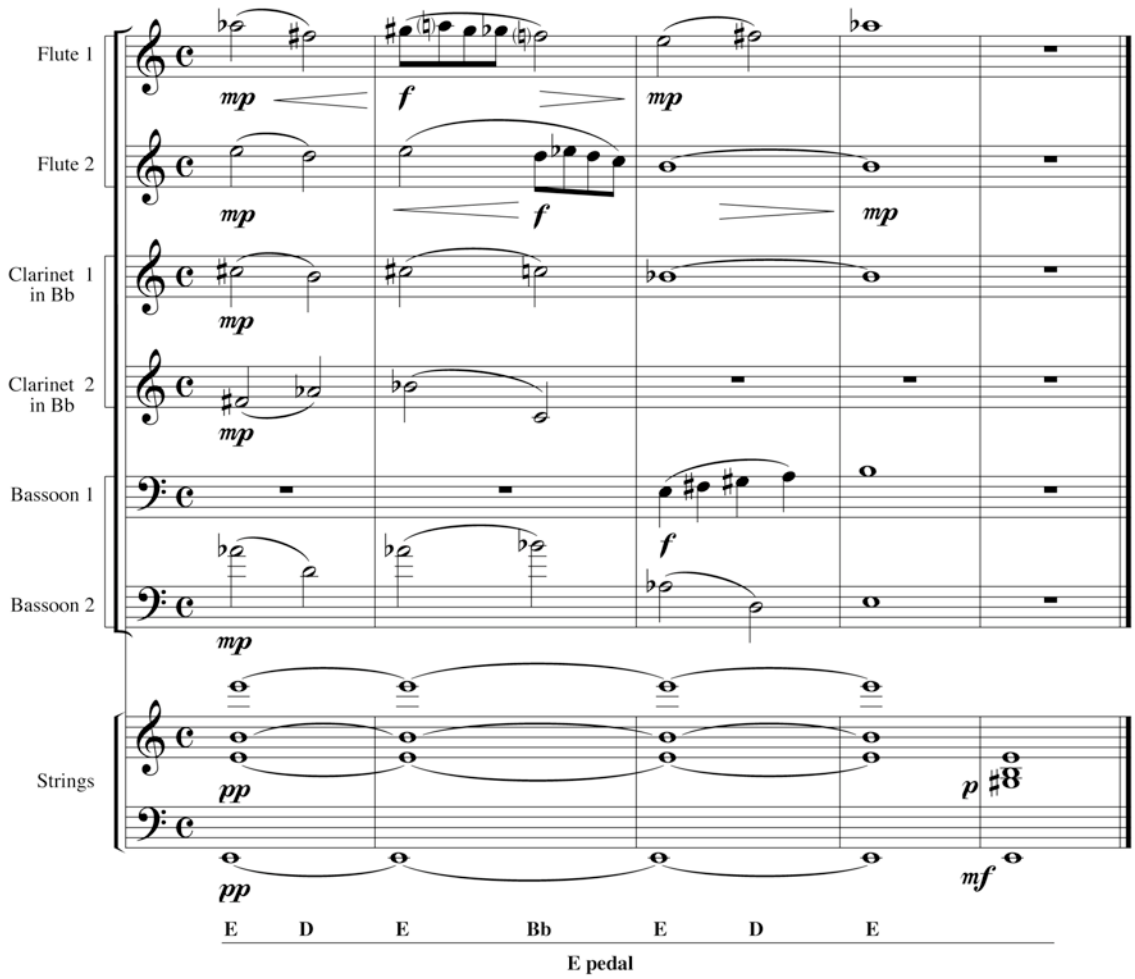
The majority of homophonic writing occurs in the second movement, particularly as part of the movement's main and recurring harmonic progression (see Ex. 100).



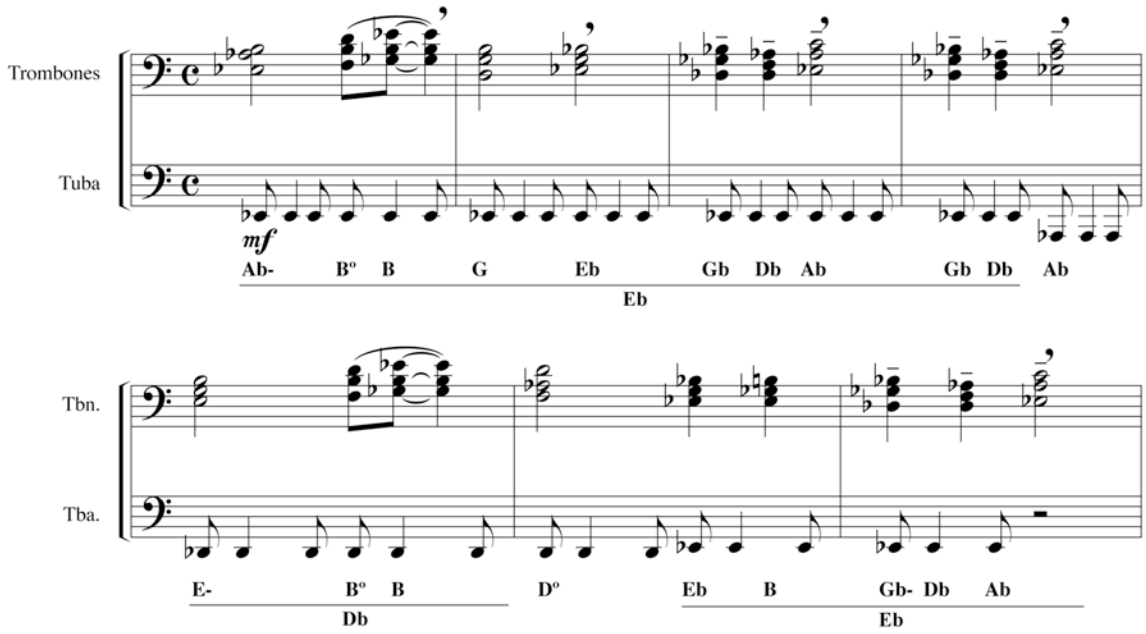
Ex. 100. Homophonic, pantriadic, and polychordal writing at the beginning of the second movement. Symphony No. 1, Movement II, mm. 1-8.

The symphony's homophony is often pantriadic and polychordal, such as in the previous example. Following Mennin's approach, the polychords in this work usually consist of disparate triads and bass notes, as opposed to stacked triads.

The second movement also contains numerous examples of pedal point, and in particular, pantriadic writing with pedal point (see Ex. 101 and Ex. 102)

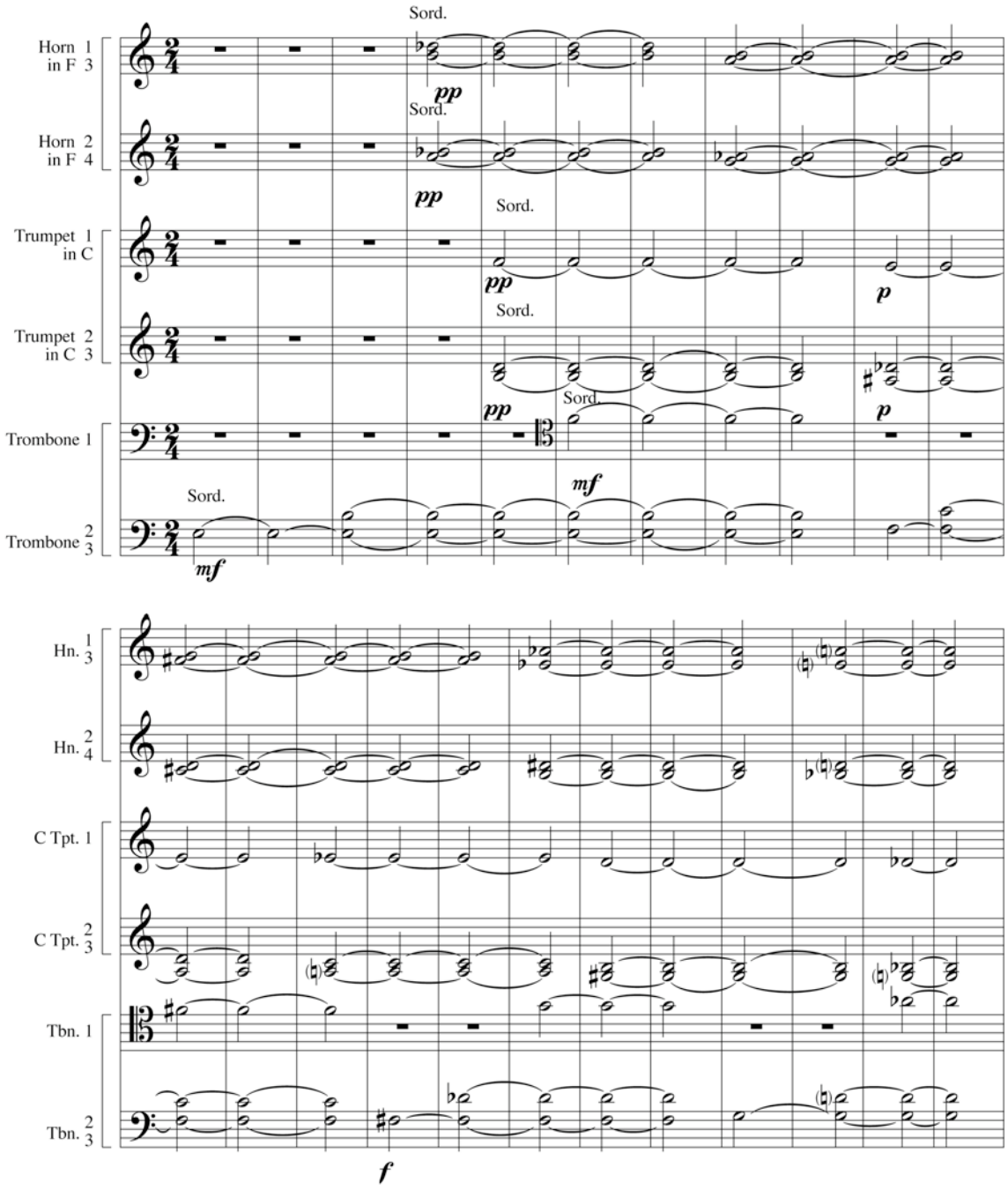


Ex. 101. Pantriadic writing with pedal point. Symphony No. 1, Movement II, mm. 94-98.

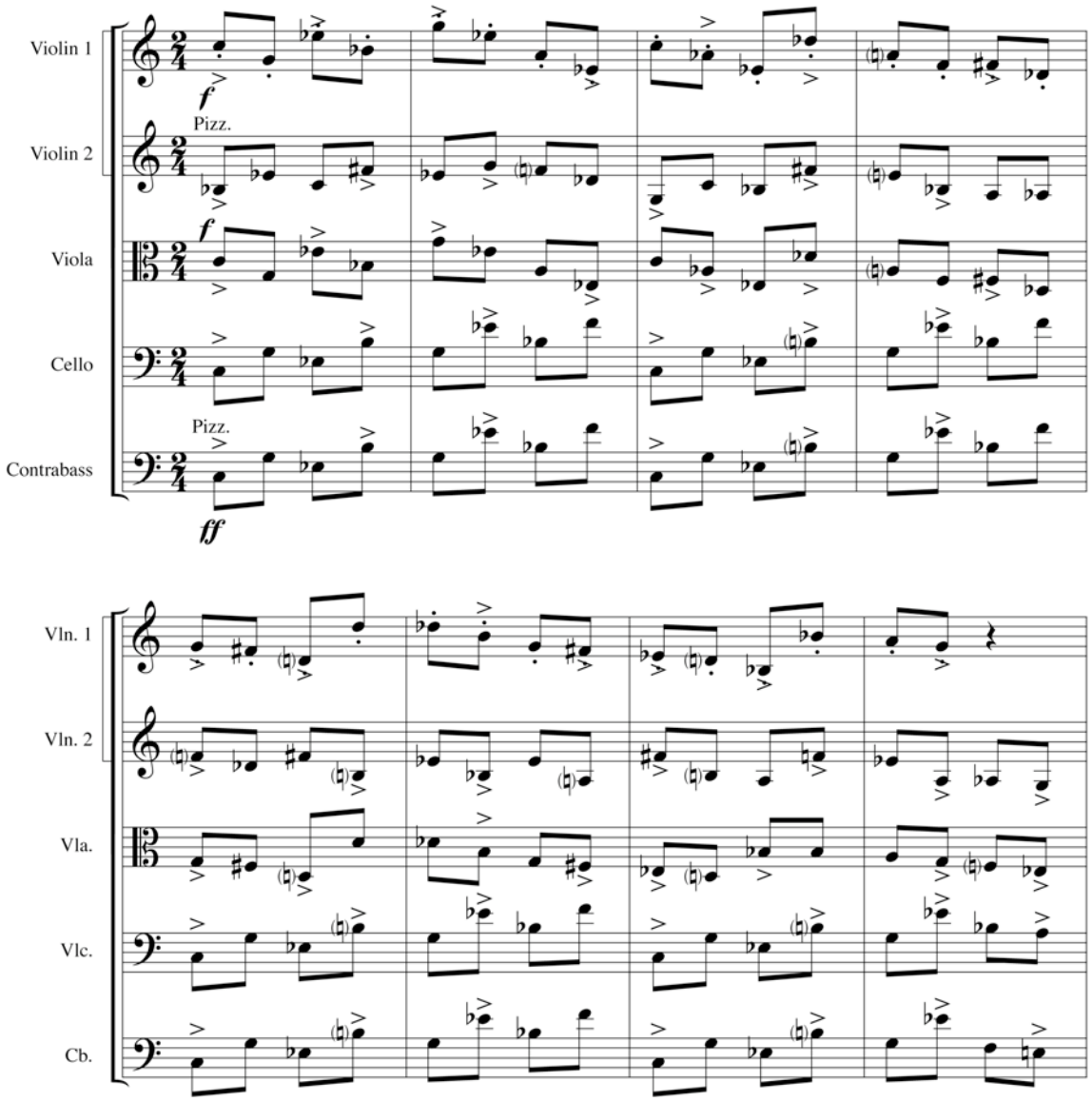


Ex. 102. Chromatic pedal point. Symphony No. 1, Movement II, mm. 17-23.

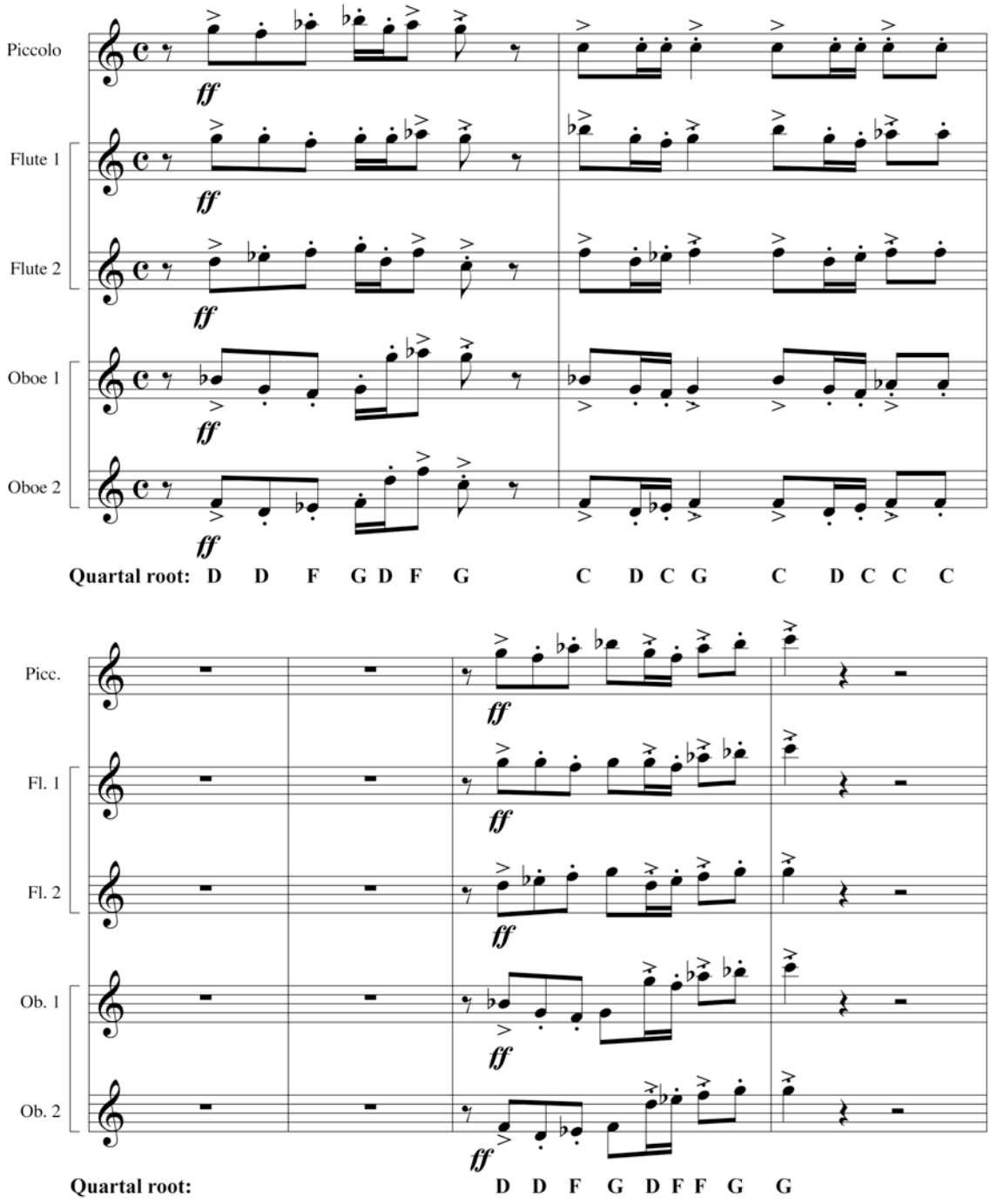
Additionally, Symphony No. 1 contains many non-tertiary techniques, such as tone clusters (see Ex. 103), tone clusters through polyphony (see Ex. 104), quartal and secundal chords (see Ex. 105), modal ostinatos (see Ex. 106), mixed modal ostinatos (see Ex. 107), and overlapping modal and chromatic ostinatos (see Ex. 108).



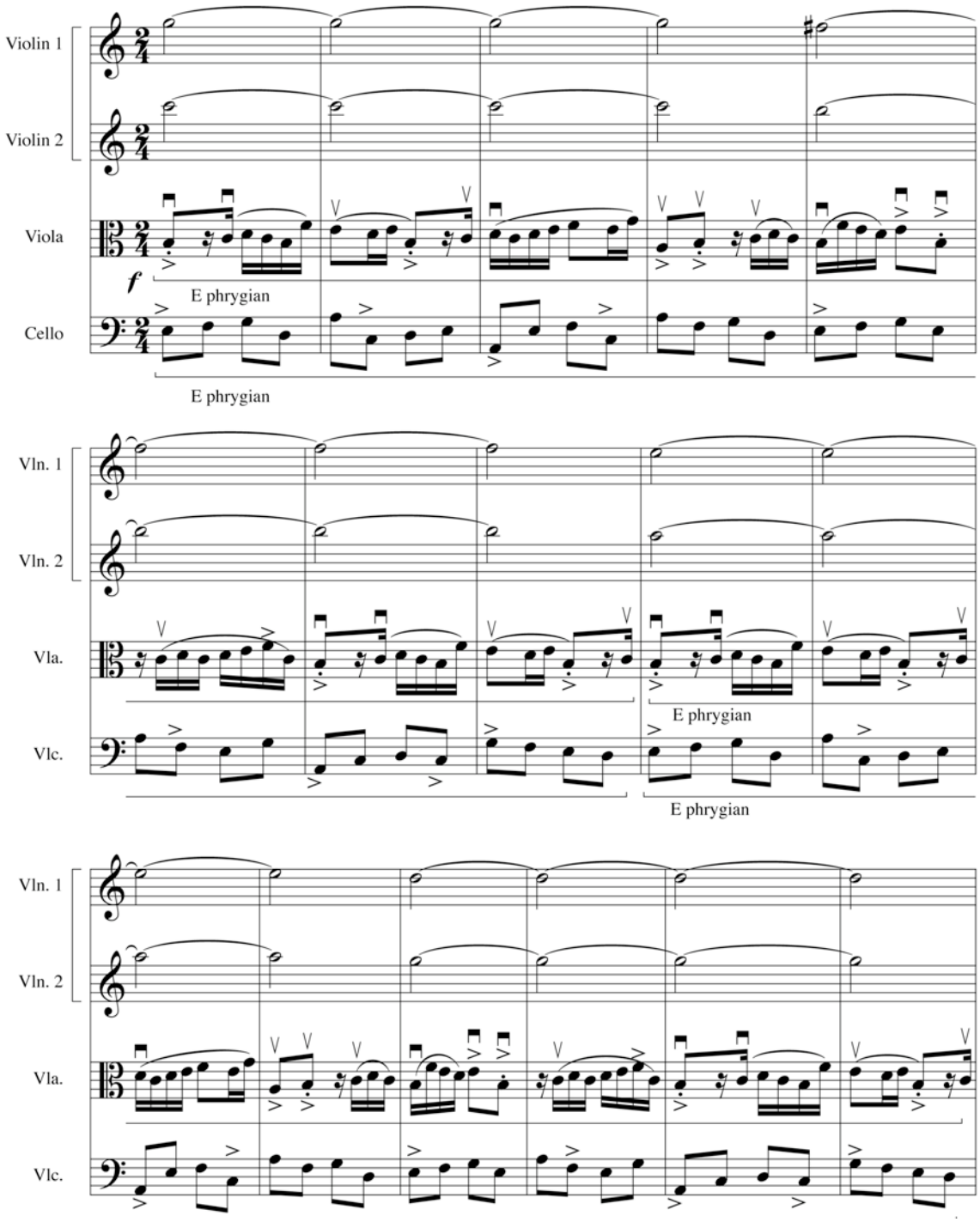
Ex. 103. Tone clusters. Symphony No. 1, Movement III, mm. 306-328.



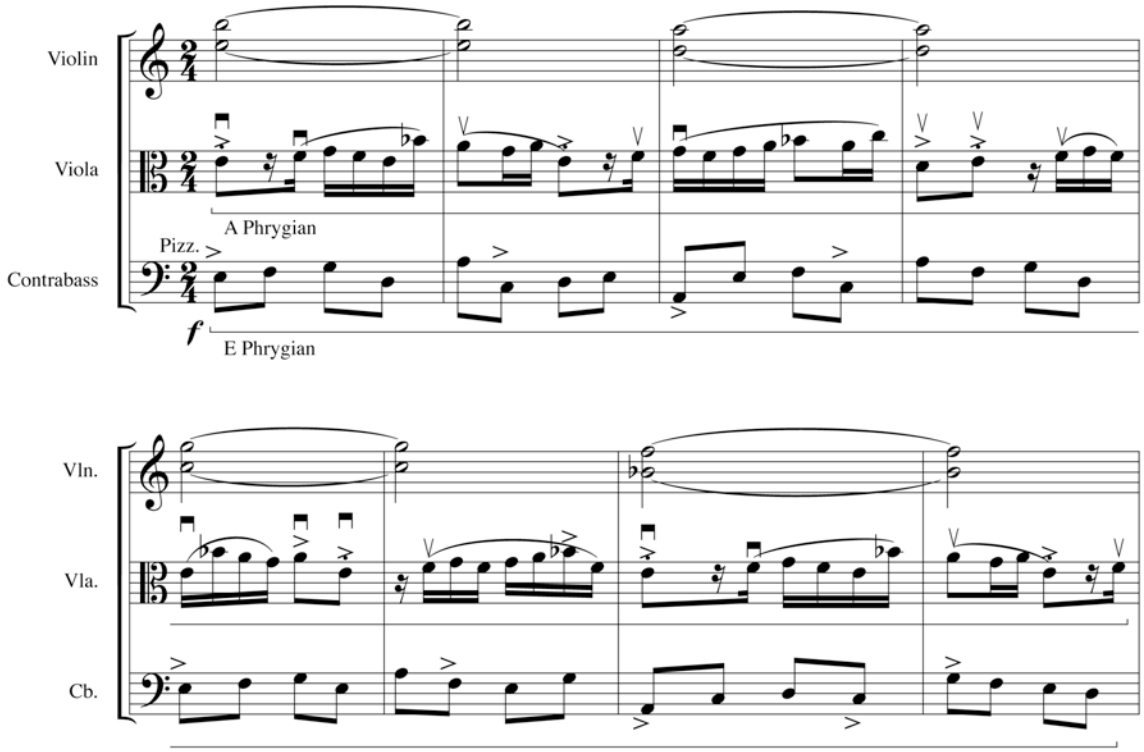
Ex. 104. Tone clusters through polyphony. Symphony No. 1, Movement III, mm. 115-122.



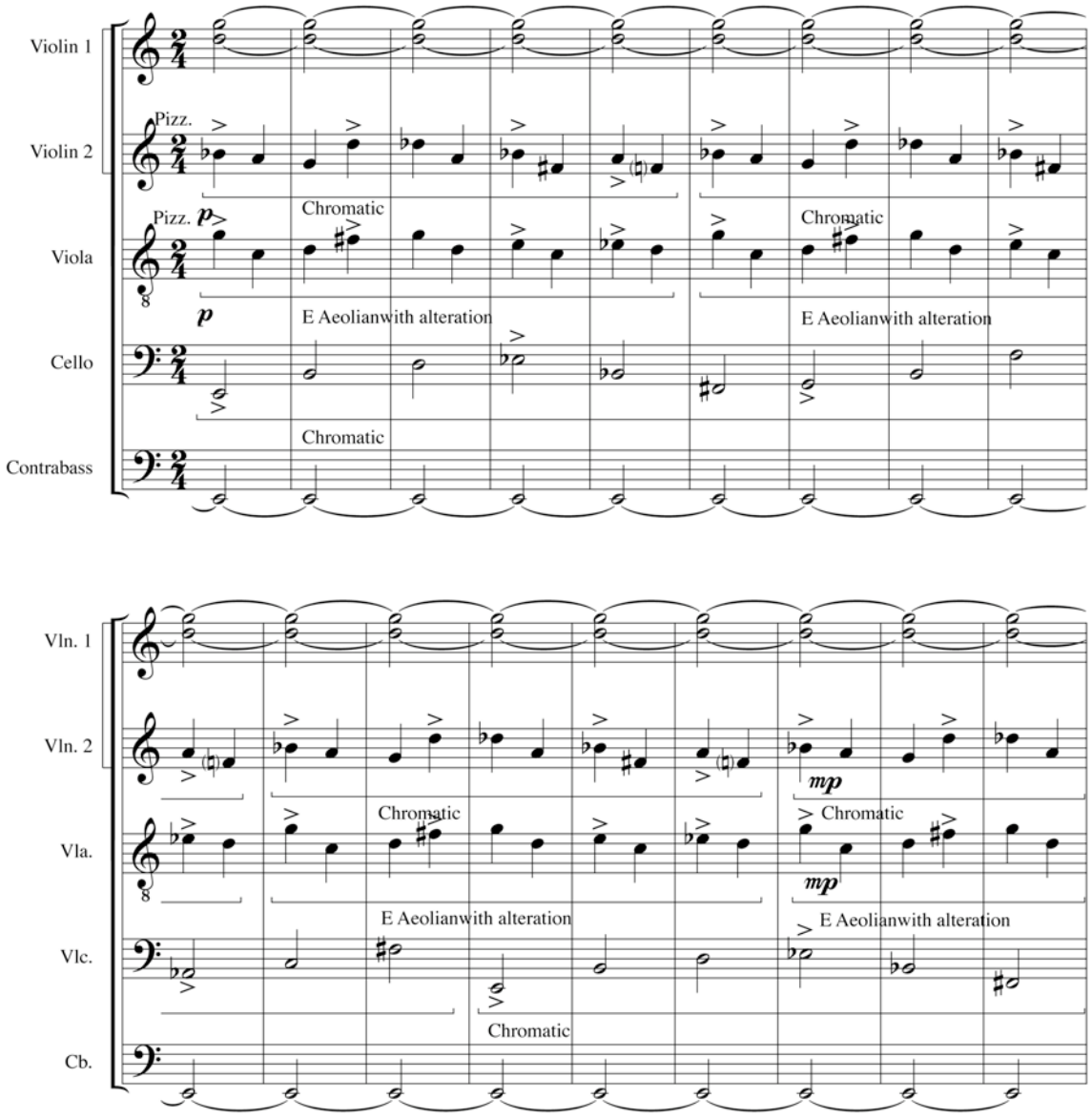
Ex. 105. Quartal and pandiatonic harmony (C Aeolian because of low brass parts). Symphony No. 1, Movement I, mm. 38-43.



Ex. 106. Modal ostinatos. Symphony No. 1, Movement III, mm. 94-110.



Ex. 107. Mixed modal ostinatos. Symphony No. 1, Movement III, mm. 199-206.



Ex. 108. Overlapping modal and chromatic ostinatos. Symphony No. 1, Movement III, mm. 329-346.

Form and Themes

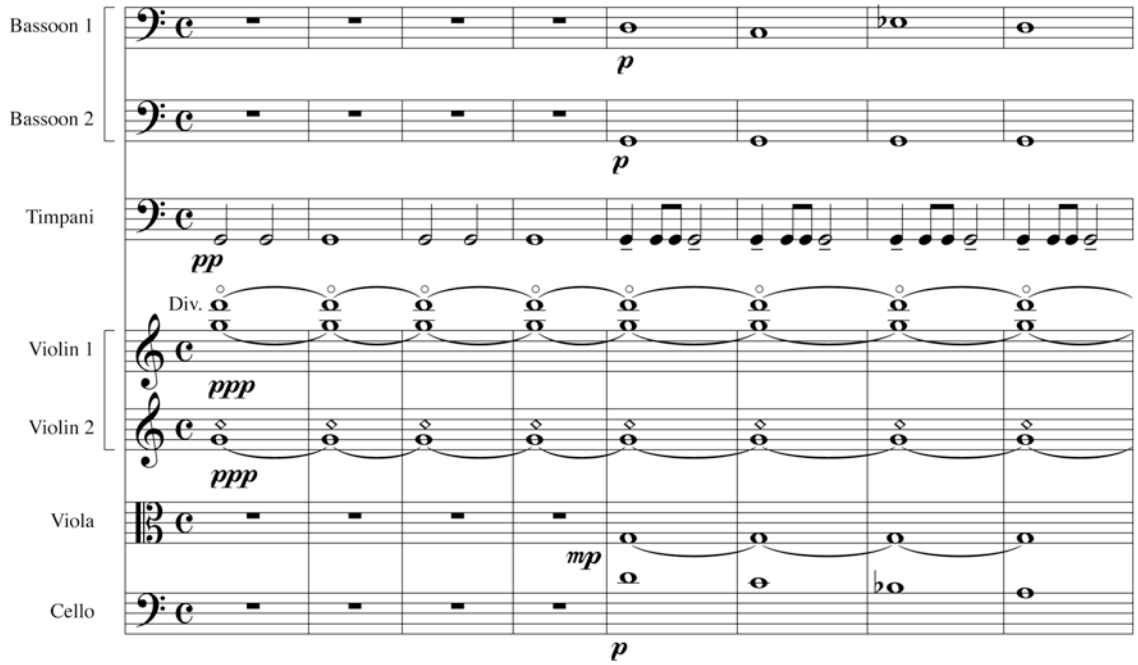
The three movements of Symphony No. 1 do not conform to traditional symphonic forms; each one follows its own thematic and contrapuntal development. The following section analyzes each movement's themes, paying particular attention to their

interplay and key relations. To understand better the overall thematic form, the end of each section contains a graphic overview of the analysis.

Movement I

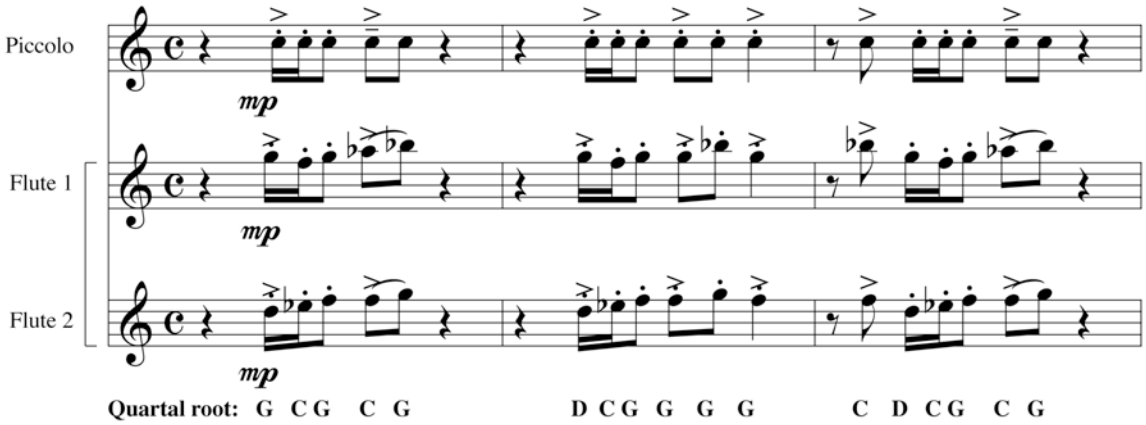
Following the first movement of Mennin's Symphony No. 5, Shaw's first movement contains one motive ("Main Motive"), and three themes ("1A," "1B," and "1C") which are all developed, passed throughout the orchestra, and treated in counterpoint to each other. Additionally, the movement similarly treats exact retrogrades of the first and third themes, designated Themes "1A-R" and "1C-R."

Movement I begins with a timpani ostinato, and a high G octave and a fifth played on harmonics by the violins. Next, the bassoons, cello, and viola enter and add to this emerging G Phrygian modality (see Ex. 109).



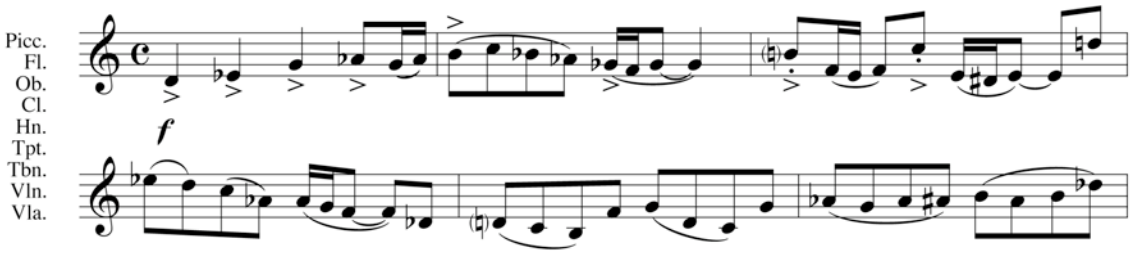
Ex. 109. The beginning of Shaw's Symphony No. 1, Movement I, mm. 1-8.

At measure seven, the piccolo and flutes play the first iteration of the movement's "Main Motive." This motive changes harmonically and somewhat rhythmically throughout the movement, but generally follows the rhythmic pattern of two sixteenths and three eighths (see Ex. 110).



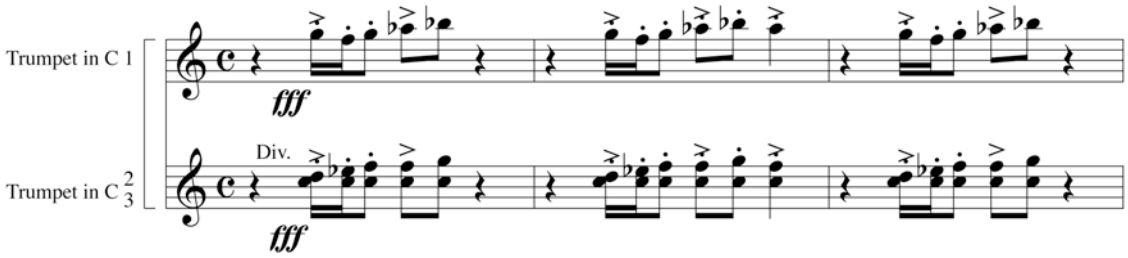
Ex. 110. The quartal and pandiatonic "Main Motive" played by piccolo and flutes. Symphony No. 1, Movement I, mm. 7-9.

The previous example is quartal and pandiatonic in G Phrygian because of the timpani and string parts. After the "Main Motive" develops and builds, the high winds, brass, and strings burst in with the first theme, "1A," at measure twenty-six (see Ex. 111).



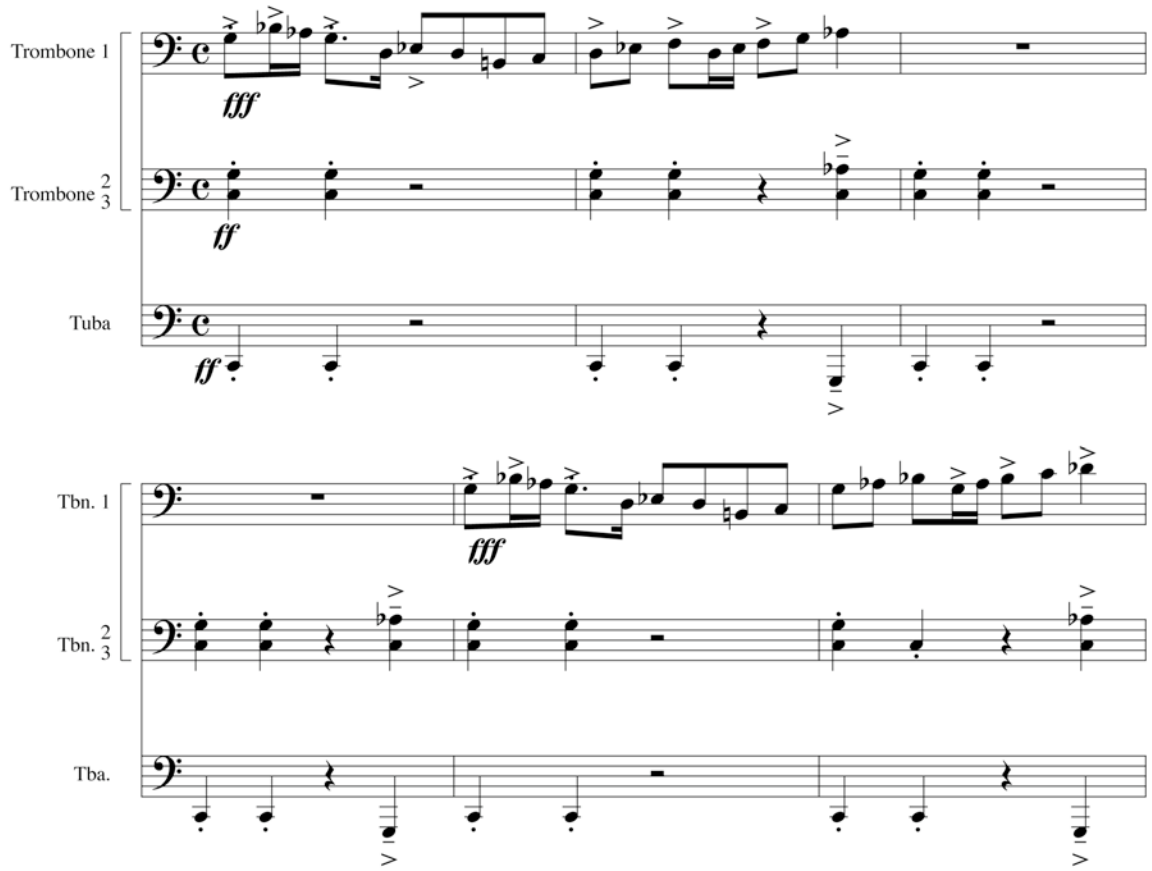
Ex. 111. Theme "1A" played by the high winds, brass, and strings. Symphony No. 1, Movement I, mm. 26-31.

Theme "1A" is chromatic, but sounds as though it centers on a G tonality, because of the previous section. The "Main Motive" immediately follows, played now by the trumpets (see Ex. 112) in C Aeolian due to the supporting harmony.



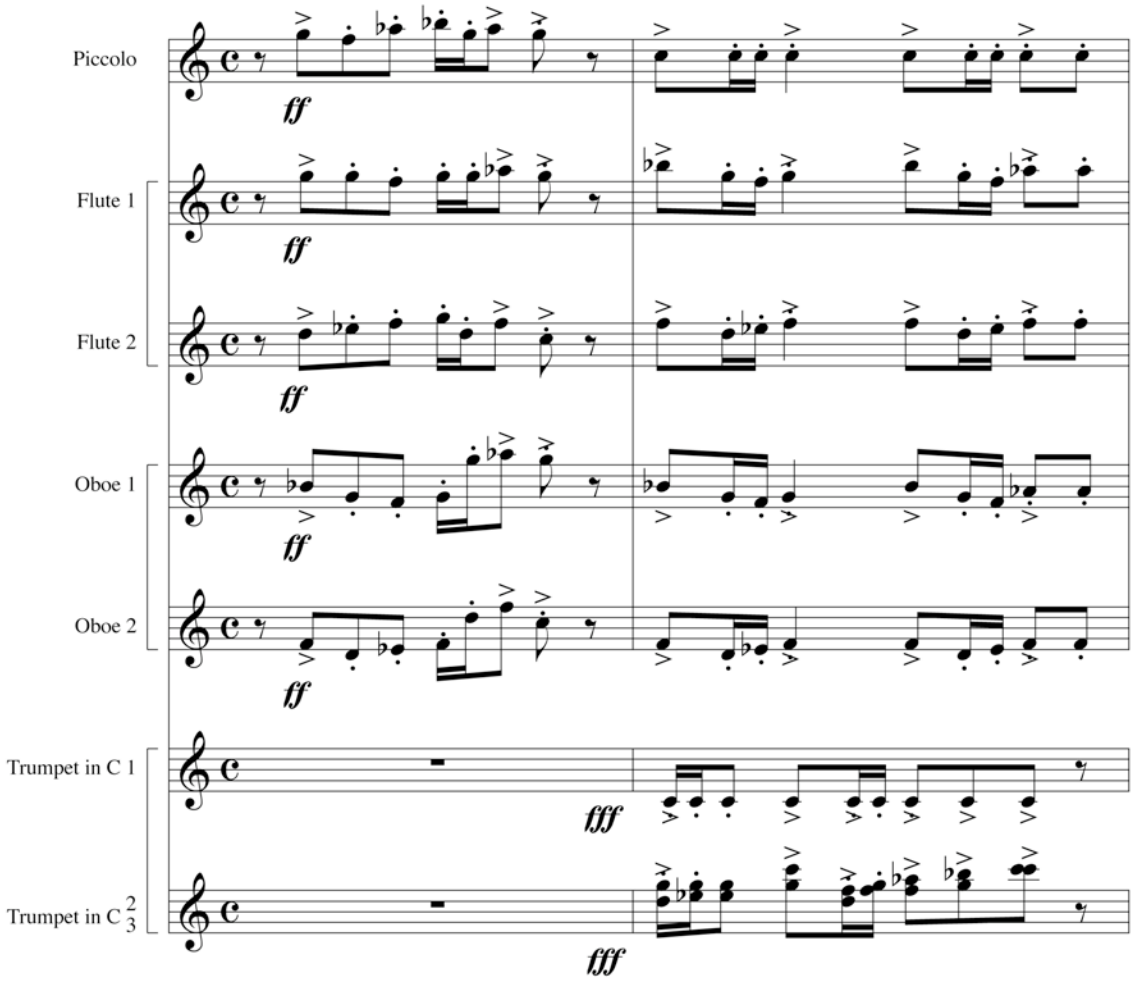
Ex. 112. The “Main Motive” played by the trumpets. Symphony No. 1, Movement I, mm. 32-34.

Next, the texture thins following a crescendo, and the first trombone introduces Theme “1B” supported by just the other trombones and tuba (see Ex. 113).



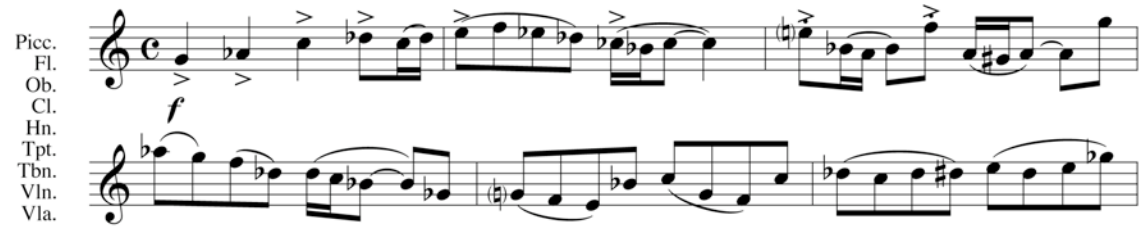
Ex. 113. Theme “1B” supported by trombones and tuba. Symphony No. 1, Movement I, mm. 36-41.

In the middle of Theme "1B," the piccolo, flutes, oboes, and trumpets intersperse developed versions of the “Main Motive" (see Ex. 114).



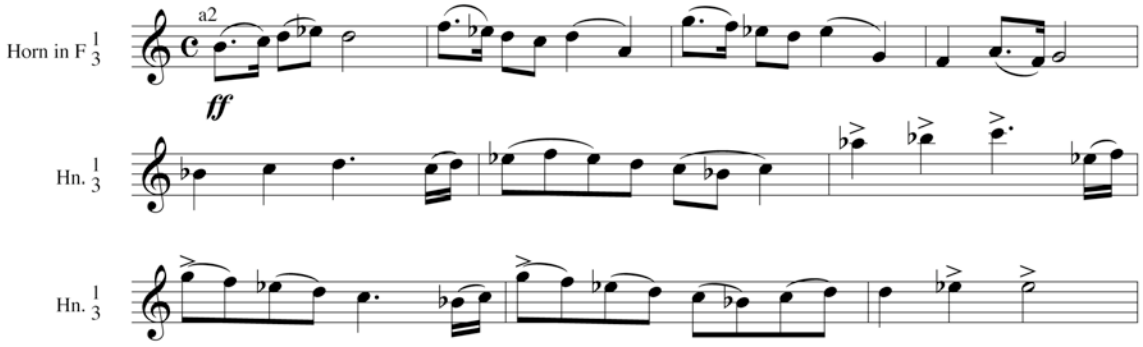
Ex. 114. A developed version of the "Main Motive." Symphony No. 1, Movement I, mm. 38-39.

Another statement of the chromatic Theme "1A" then follows, though transposed up a fourth to imply a relation with the previous C tonality (see Ex. 115).



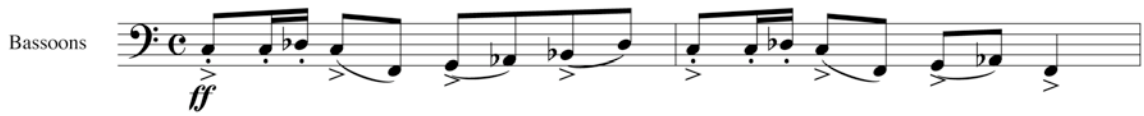
Ex. 115. Theme "1A" transposed. Symphony No. 1, Movement I, mm. 44-49.

Next, the first and third horns enter with Theme "1C" in C Aeolian (see Ex. 116).



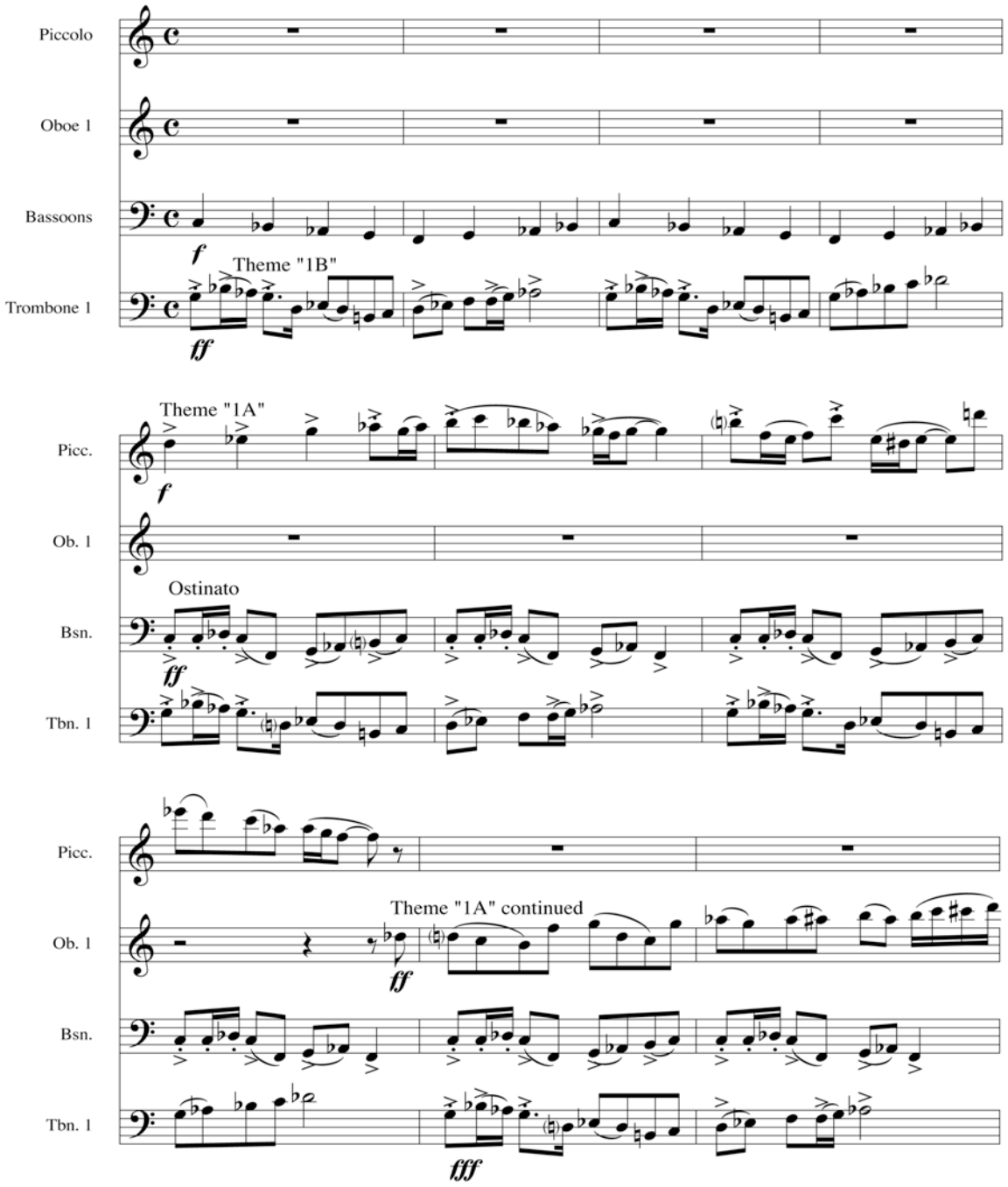
Ex. 116. Theme "1C" played by the horns. Symphony No. 1, Movement I, mm. 51-60.

Halfway through this theme, the bassoons enter with a repeated two-measure ostinato which is related to Theme "1B" and used later in the work and also in the third movement (see Ex. 117 below and Ex. 142, page 179).



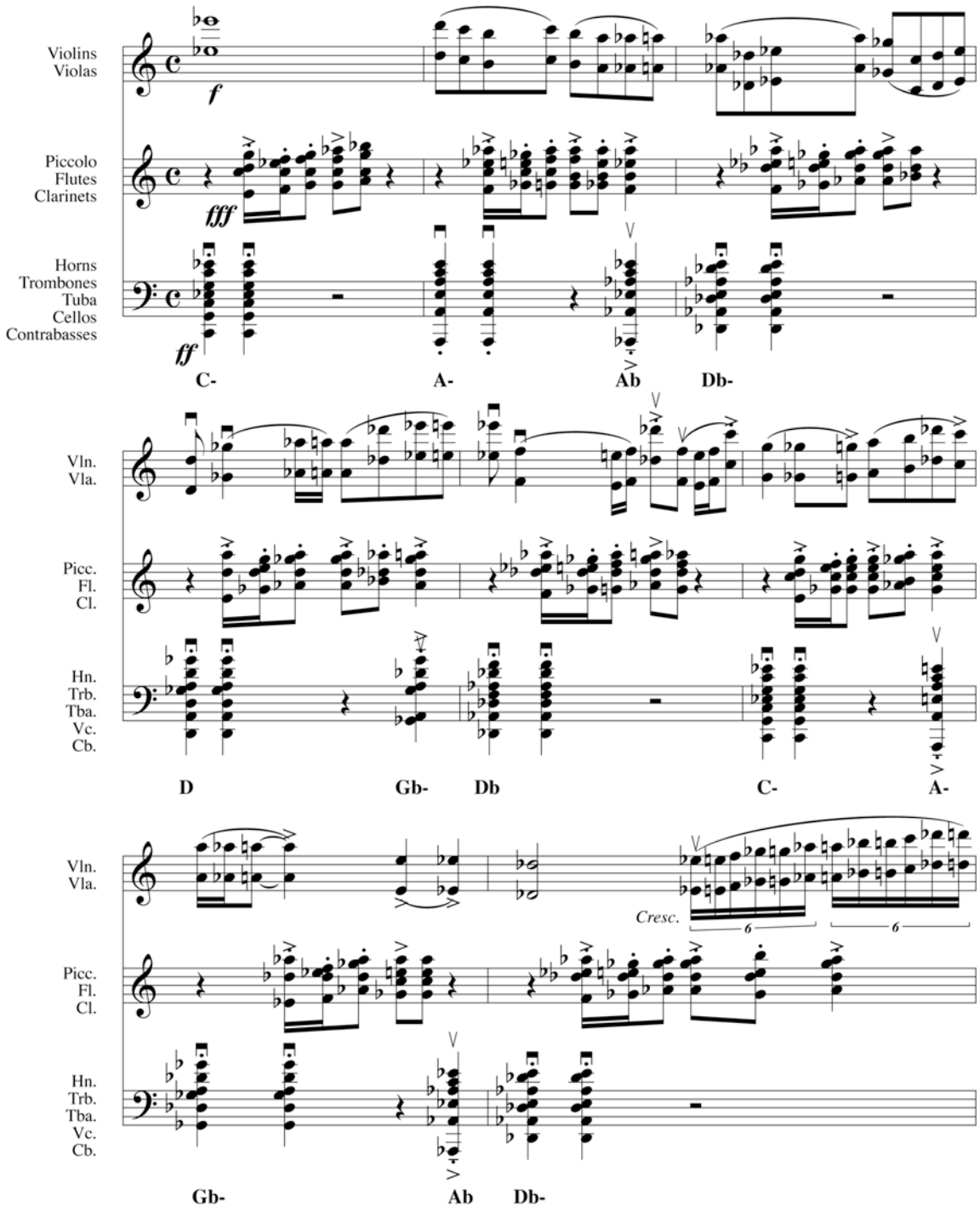
Ex. 117. Ostinato related to Theme "1B" and played by the bassoons. Symphony No. 1, Movement I, mm. 55-56.

The next section consists of the combination of Themes "1A" and "2A" and the ostinato, each played by the piccolo, first trombone, and bassoons, respectively (see Ex. 118).



Ex. 118. Themes "1A" and "1B" and ostinato together. Symphony No. 1, Movement I, mm. 61-70.

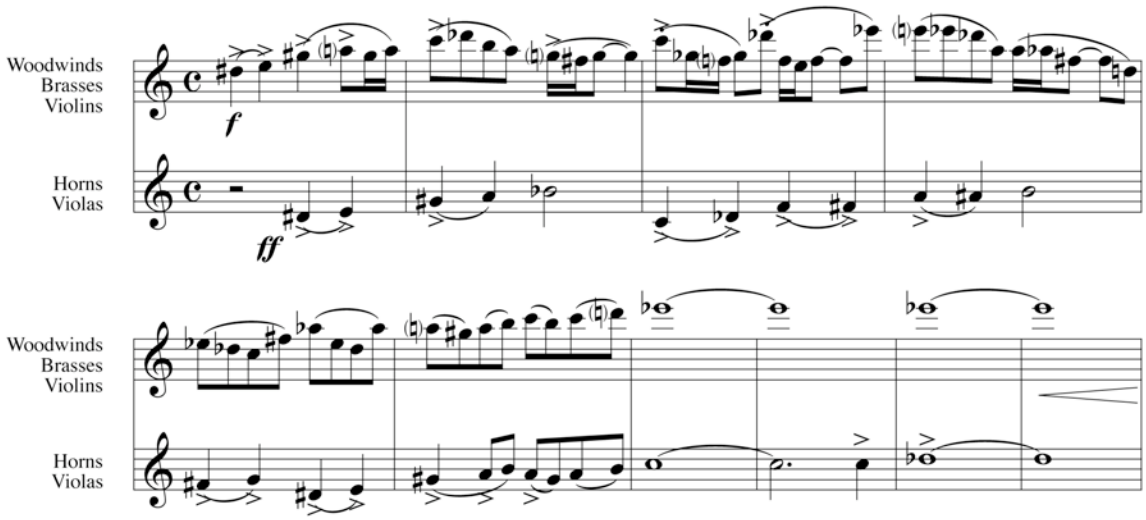
Next, the accompaniment thins with a stop-time accompaniment as the violins and violas present "1A" in retrograde (designated Theme "1A-R"), augmented by the piccolo, flutes, and clarinets playing the "Main Motive" (see Ex. 119).



Ex. 119. Retrograde of Theme "1A" played by the violins and violas, stop-time accompaniment played by the brass and low strings, and "Main Motive" played by the piccolo, flutes, and clarinets. Symphony No. 1, Movement I, mm. 71-78.

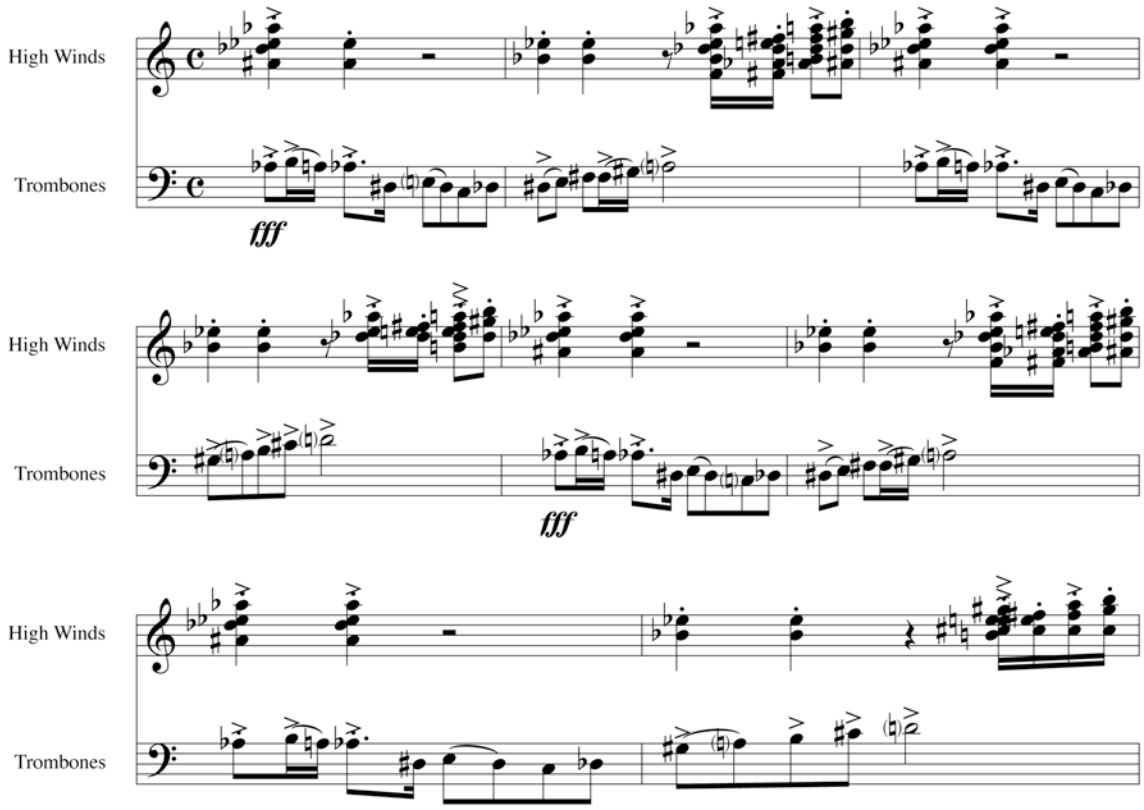
The pantriadic accompaniment of this section also marks the transition from a C tonic to a D-flat tonic.

After another statement of the "Main Motive" by the trumpets, the first and third horns play Theme "1C," this time in D-flat Aeolian with major tonic chords. Next, woodwinds, brasses, and violins play Theme "1A" while the horns and violas add a countermelody (see Ex. 120).



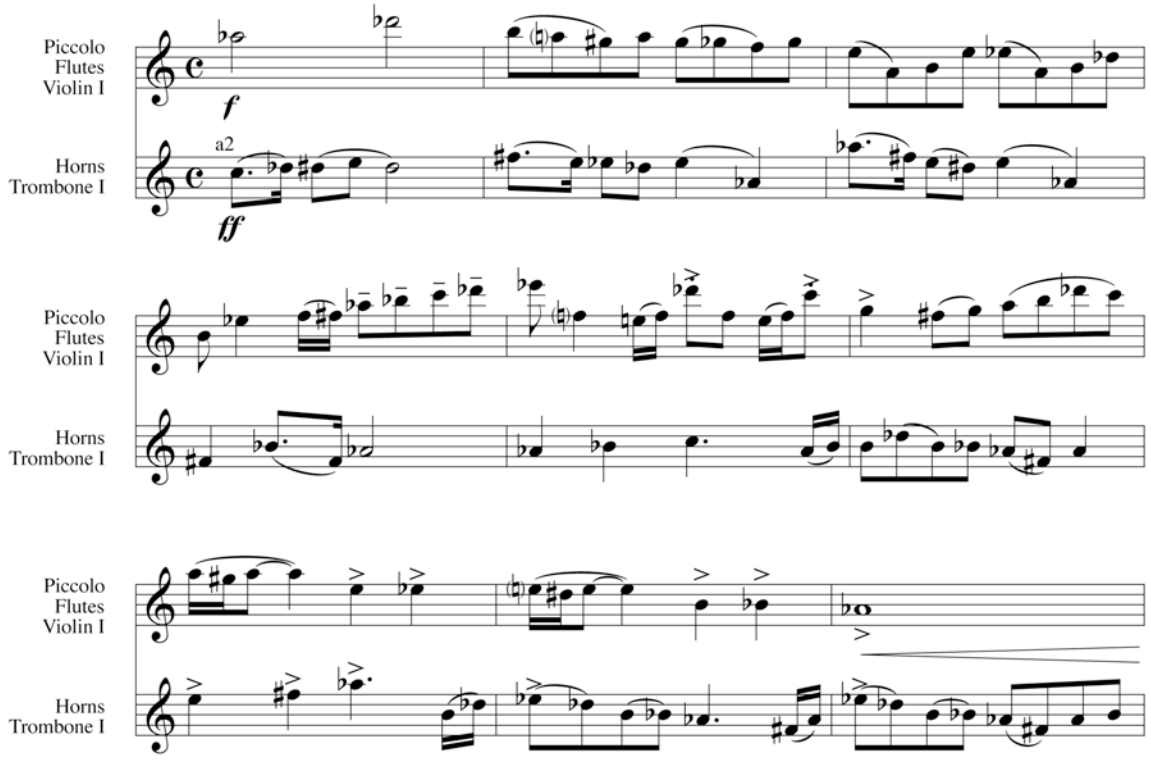
Ex. 120. Theme "1A" in the woodwinds, brasses, and violins with countermelody played by the horns and violas. Symphony No. 1, Movement I, mm. 93-102.

The trombones then play Theme "1B" in D-flat Aeolian and the high winds develop the "Main Motive" (see Ex. 121).



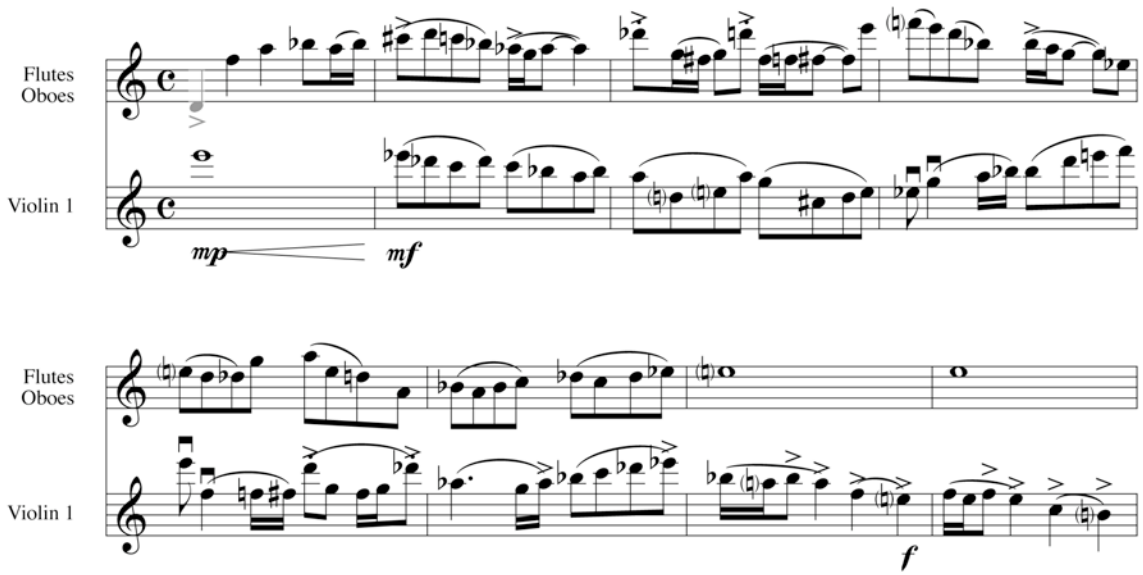
Ex. 121. Theme "1B" in the trombones with the "Main Motive" in the high winds. Symphony No. 1, Movement I, mm. 103-110.

The broken rhythm of this section, along with the loud "Main Motive" lead to the violins playing Theme "1A-R," this time harmonized in D-flat Aeolian. Then, the violins, piccolo, and flutes restate it, though harmonized with major tonic chords and in counterpoint with the horns and first trombone playing Theme "1C" (see Ex. 122).



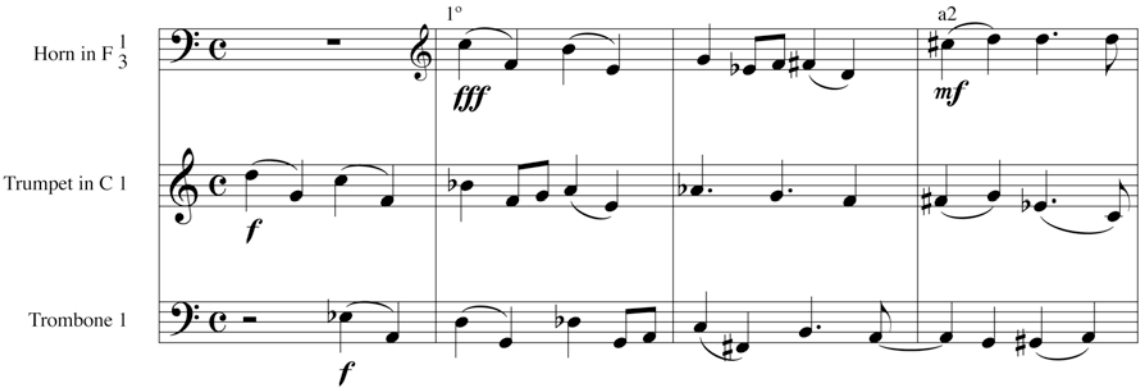
Ex. 122. Theme "1A-R" in counterpoint with Theme "1C." Symphony No. 1, Movement I, mm. 119-127.

After a climatic statement of Theme "1A" with increased harmonic motion, the texture dramatically thins and just the flutes play "1A-R" with a chromatic accompaniment by only the second oboe and clarinets. This leads to a quiet contrapuntal section, starting first with Theme "1A" against a retrograde of itself (see Ex. 123).



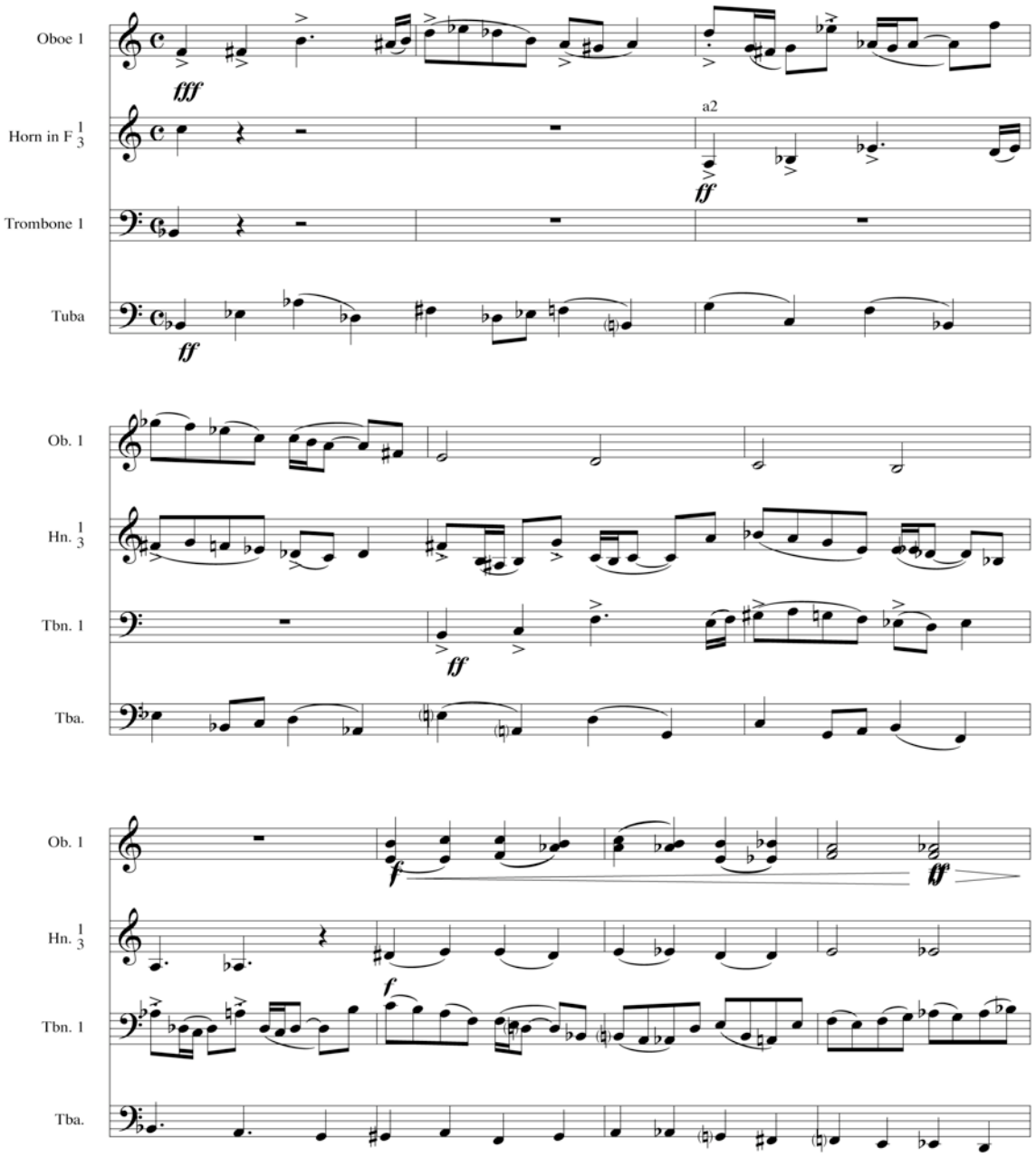
Ex. 123. Theme "1A" in counterpoint with a retrograde of itself. Symphony No. 1, Movement I, mm. 144-151.

Continuing this quiet section, the bassoons play Theme "1A" while the first trumpet, first horn, and first trombone contrapuntally play the accompanying bass line offset by two beats each at various intervals (see Ex. 124).



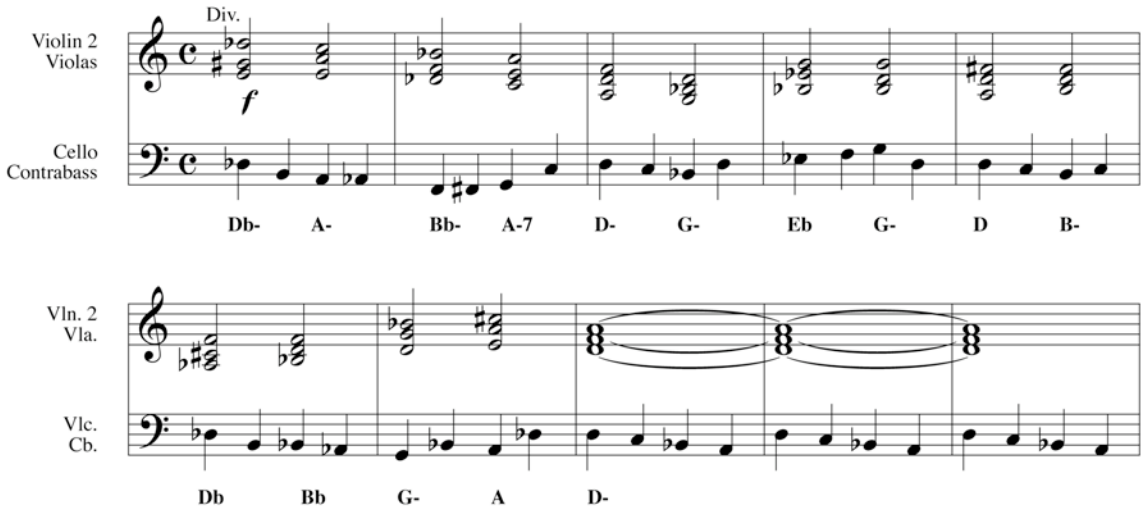
Ex. 124. Counterpoint of the bass line to Theme "1A." Symphony No. 1, Movement I, mm. 152-155.

Finally, Theme "1A" plays in counterpoint with itself three times, offset by descending minor thirds and eight beats each (see Ex. 125).



Ex. 125. Three-voice counterpoint of Theme "1A," offset by descending minor thirds and two measures each. Symphony No. 1, Movement I, mm. 158-167.

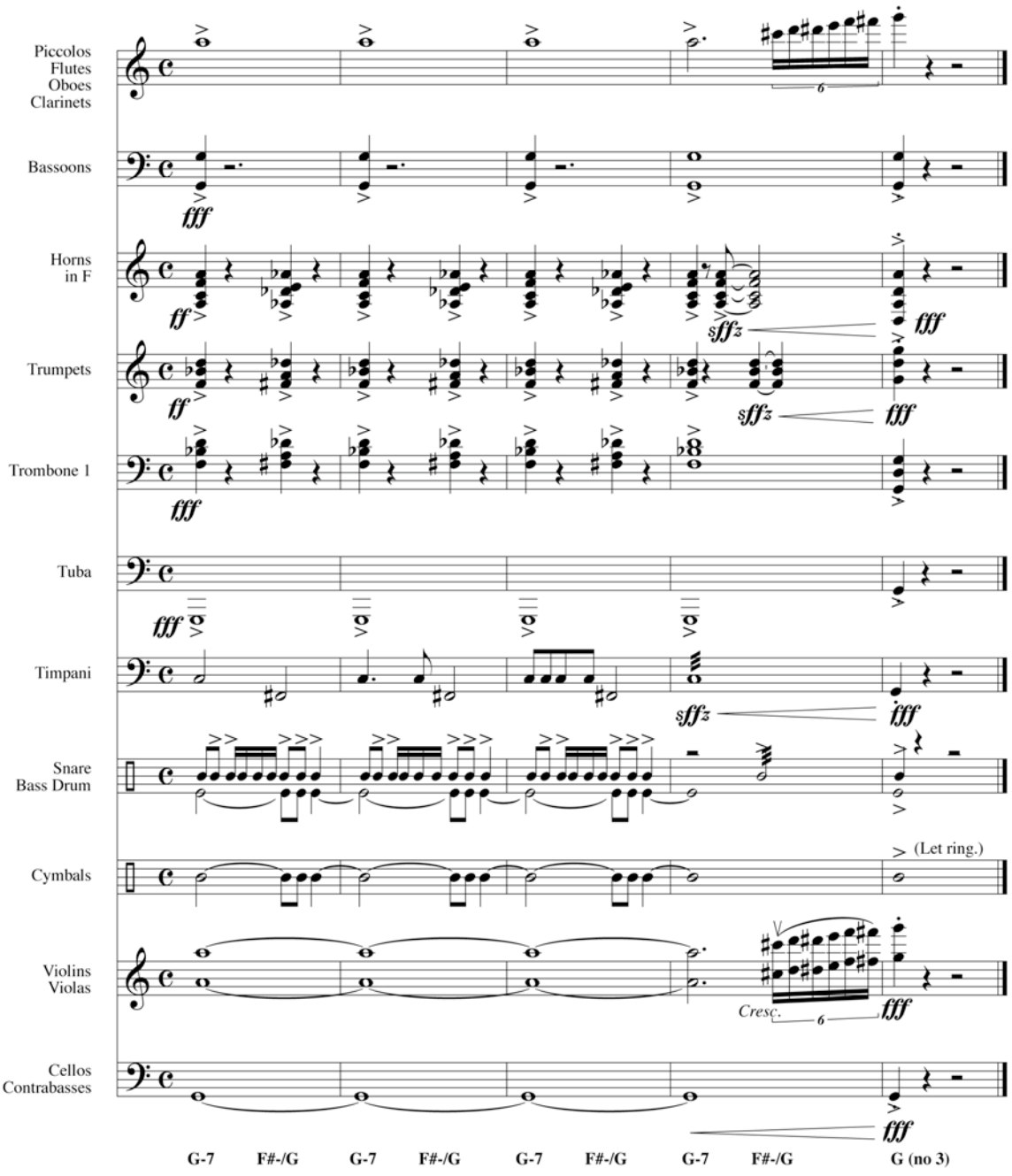
The final section of the movement consists of just Themes "1A" and "1C." First, the horns present "1C" in octaves supported by the strings and interspersed with fragments of the "Main Motive" by the flutes and piccolo. Next, the second and fourth horns and first trumpet repeat "1C," though now transposed up a minor second, while the violins play Theme "1A-R." The rest of the strings accompany with pantriadic harmony and a seemingly "walking" bass line (see Ex. 126).



Ex. 126. Pantriadic harmony and a "walking" bass line in the strings. Symphony No. 1, Movement I, mm. 177-186.

The trombones and bassoons then reverse "1C" (now designated Theme "1C-R"), and the oboes and first violins reverse Theme "1A-R" (simply designated Theme "1A" again). The two themes play together with a stop-time accompaniment. Next comes the final mixing of "1A-R" and "1C," this time with an accompaniment based on the reversed previous stop-time pattern.

The final iteration of Theme "1A" has the fastest harmonic motion yet and leads to the closing section which consists of G-minor seventh and F sharp minor chords over a G pedal. The movement ends on an open fifth G chord.



Ex. 127. The concluding measures of the first movement. Symphony No. 1, Movement I, mm. 212-216.

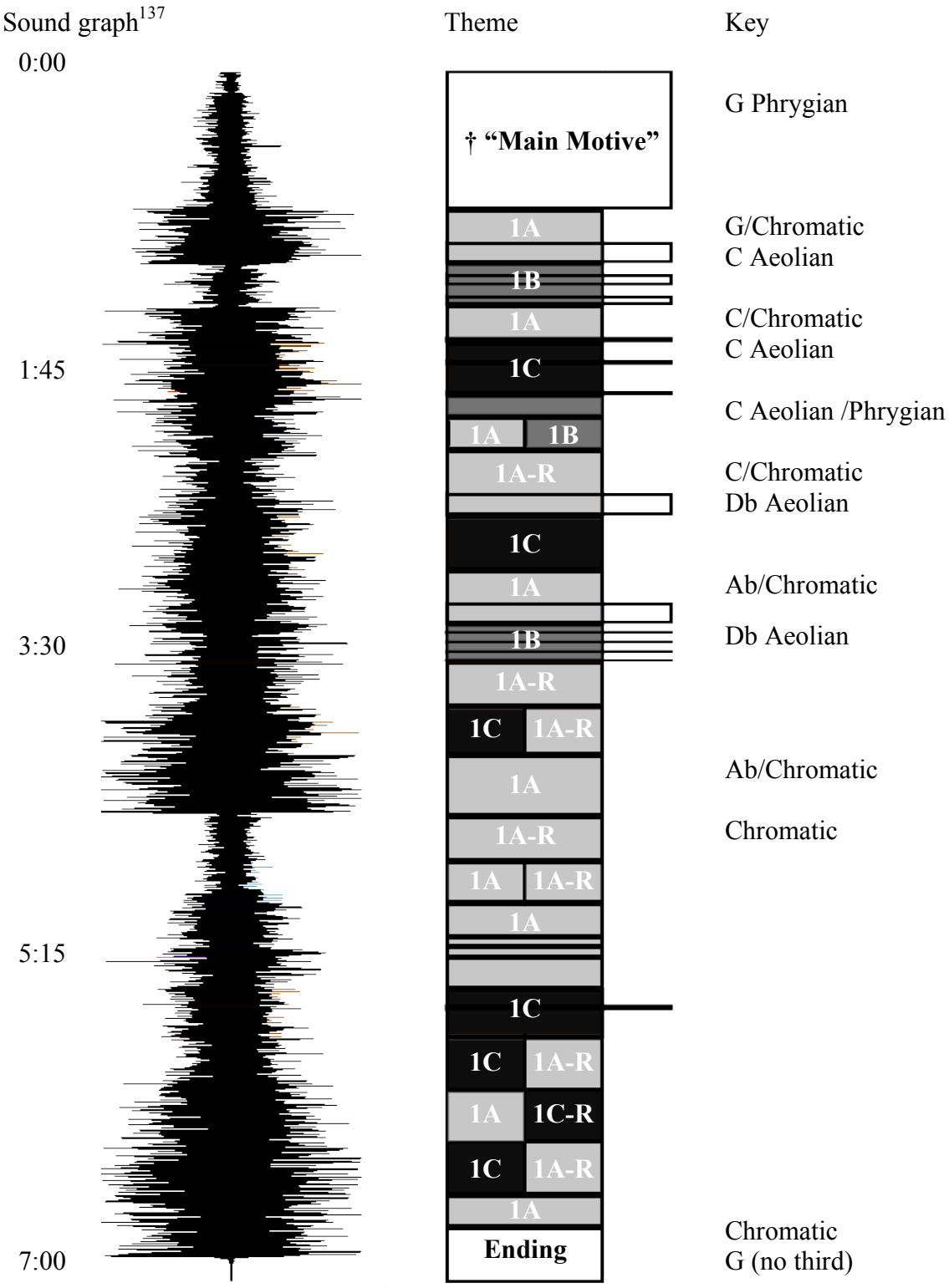


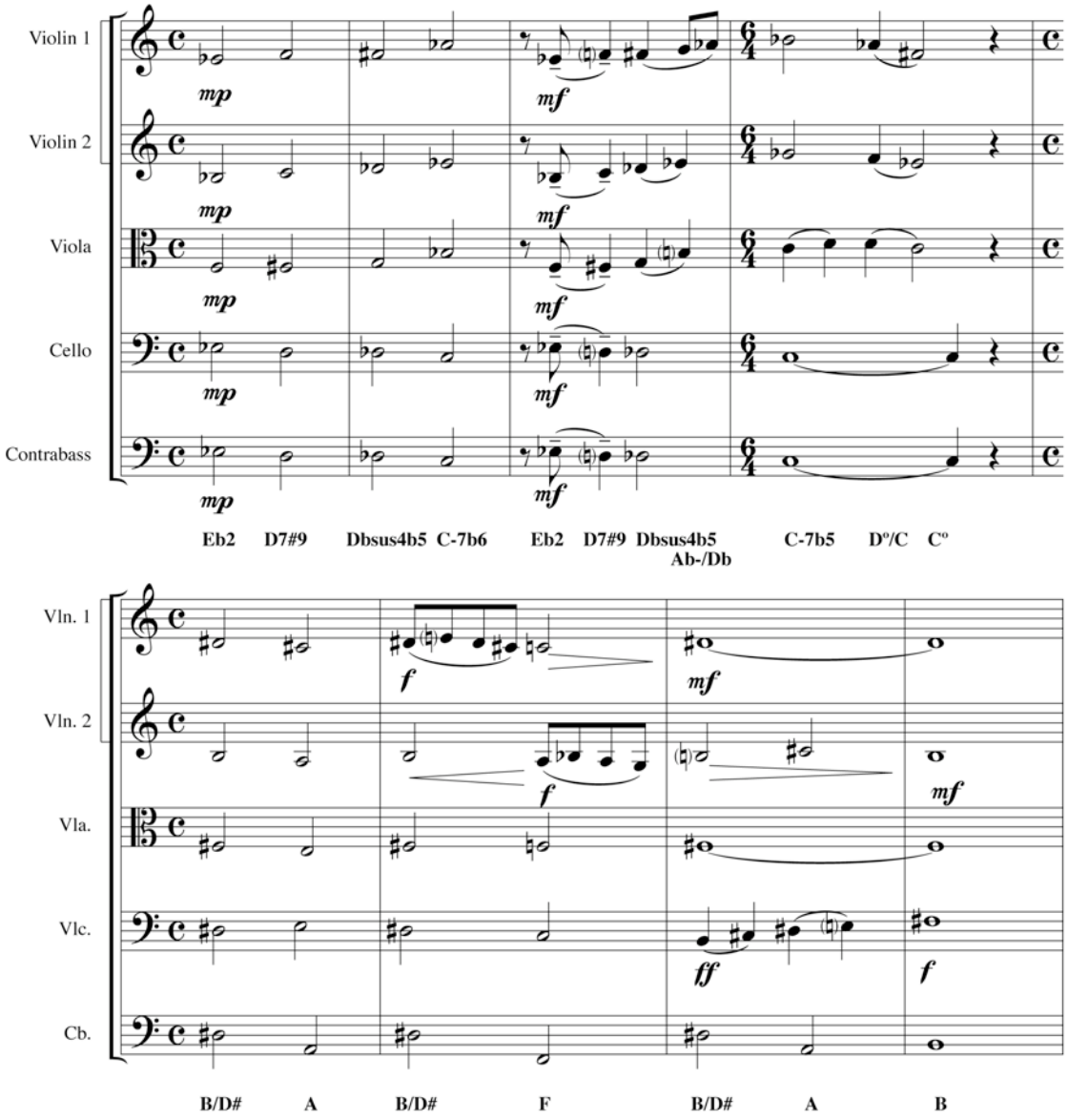
Figure 4. Sound graph, thematic use, and keys in Shaw, Symphony No. 1, movement I.
† A long box denotes strong use of the "Main Motive" (fourteen total).

[137] A digital waveform image of a computer rendition of the score.

Movement II

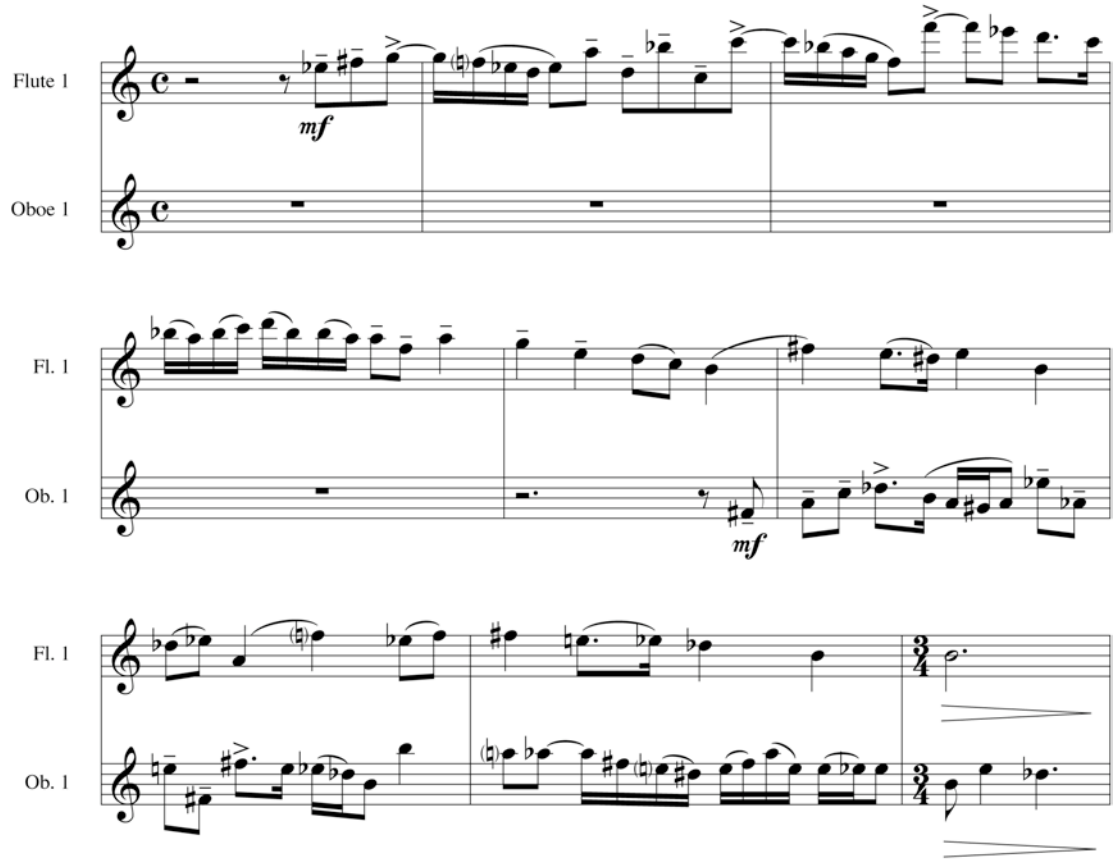
Following Mennin's three-movement symphonic plan, the second movement of Shaw's Symphony No. 1 is slow and lyrical. Like Mennin's second movement, this one contains one recurring chord progression ("Main Progression") and two main themes, both of which develop throughout the movement.

The movement begins with the strings quietly playing the "Main Progression," which is a chromatic chord series starting on E-flat major and ending on B major (see Ex. 128).



Ex. 128. The "Main Progression" and opening measures of the second movement. Symphony No. 1, Movement II, mm. 1-8.

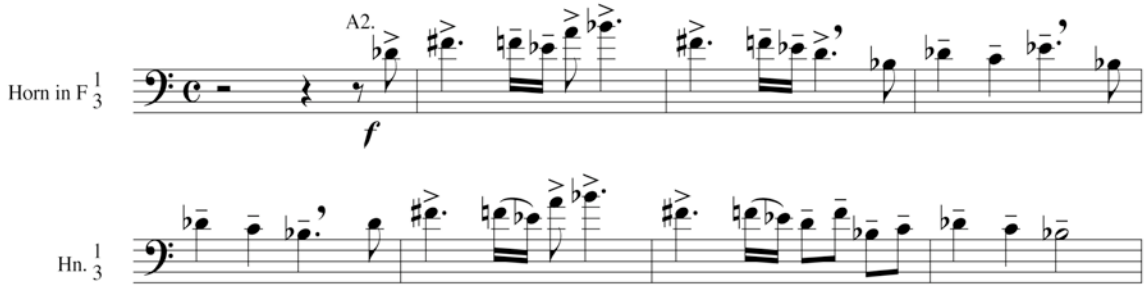
After this introduction, a solo flute presents the first theme, "2A," accompanied by the strings playing the "Main Progression." Four and one quarter measures later the first oboe begins its own sounding of the first theme, though transposed up a minor third (see Ex. 129).



Ex. 129. Theme "2A" played by the first flute in counterpoint with itself by four and a quarter measures, played by the first oboe. Symphony No. 1, Movement II, mm. 8-16.

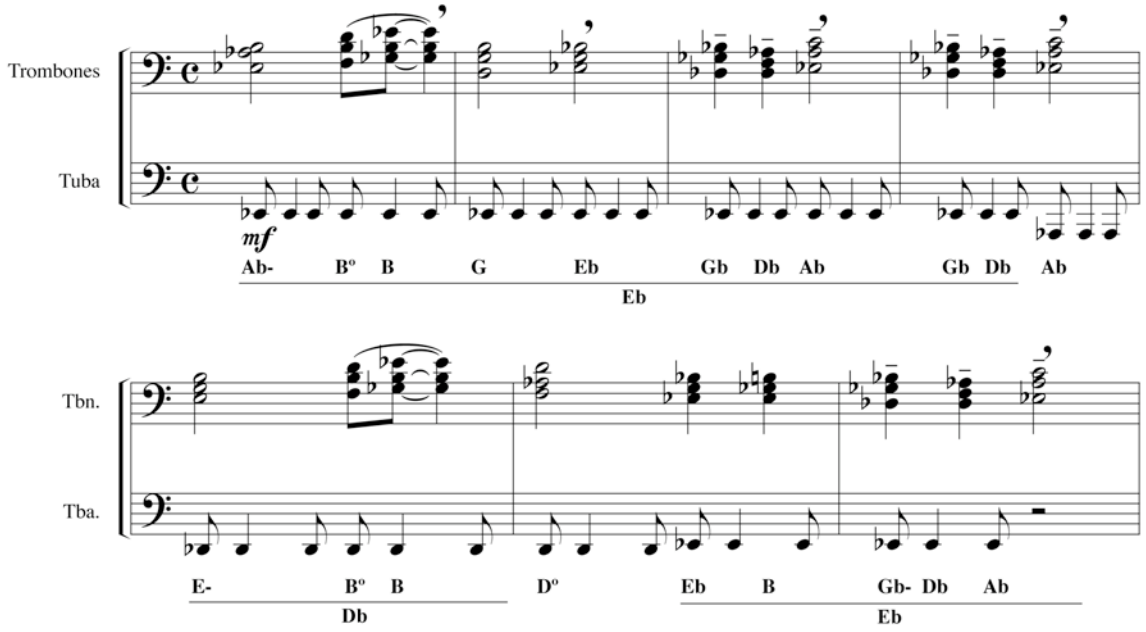
Delaying this second entrance of Theme "2A" by an uneven number of measures inverts the phrase's rhythm and hides its identity, making it sound more like a countermelody than an echo of the first theme.

Next, the first and third horns present the second theme, "2B," accompanied by the low brass and timpani (see Ex. 130).



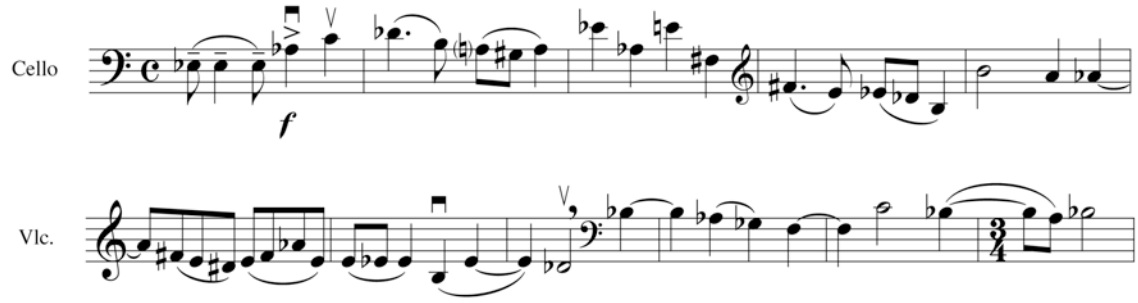
Ex. 130. Theme "2B" played by the horns. Symphony No. 1, Movement II, mm. 16-23.

Although this theme is in E-flat minor with occasional major third intervals, the harmony is pantriadic and combined with various pedals (see Ex. 131).



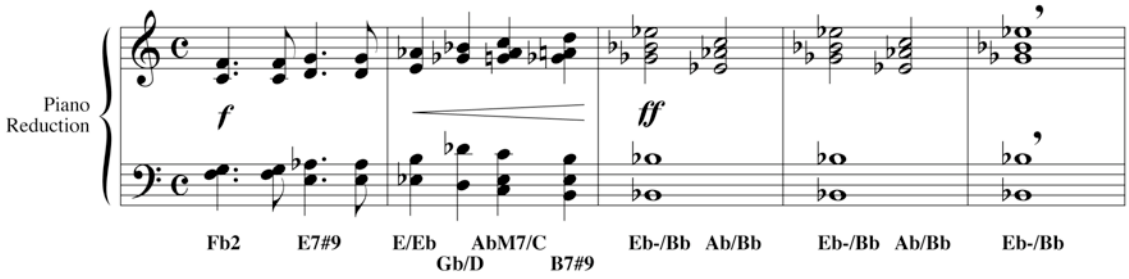
Ex. 131. Pantriadic pedal point to Theme "2B." Symphony No. 1, Movement II, mm. 17-23.

Next, the cellos play a rhythmically augmented version of "2A," which serves as the bass line to a homophonic accompaniment by the trombones and first violins (see Ex. 132).



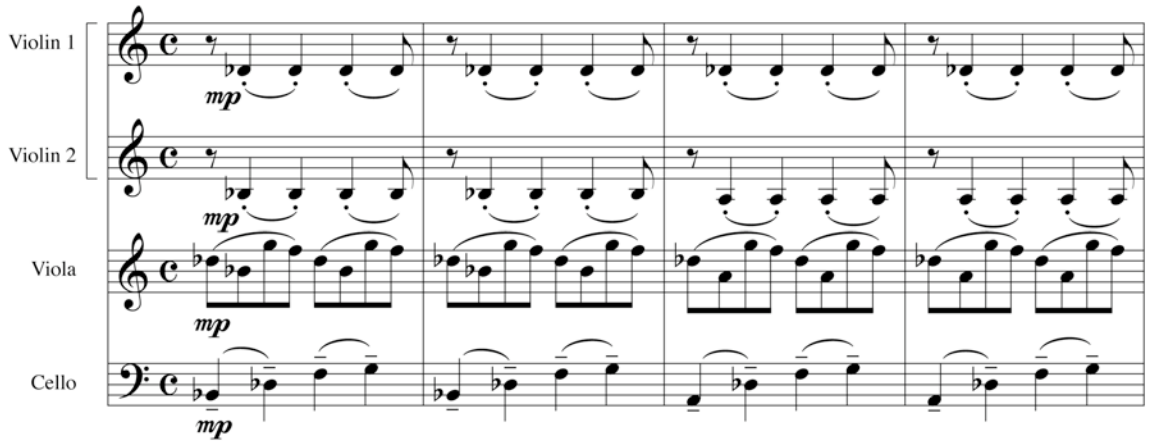
Ex. 132. Theme "2A" with rhythmic augmentation played by the cellos. Symphony No. 1, Movement II, mm. 23-33.

As more brasses enter, this section grows into the "Main Progression" and becomes the first climax of the movement (see Ex. 133).



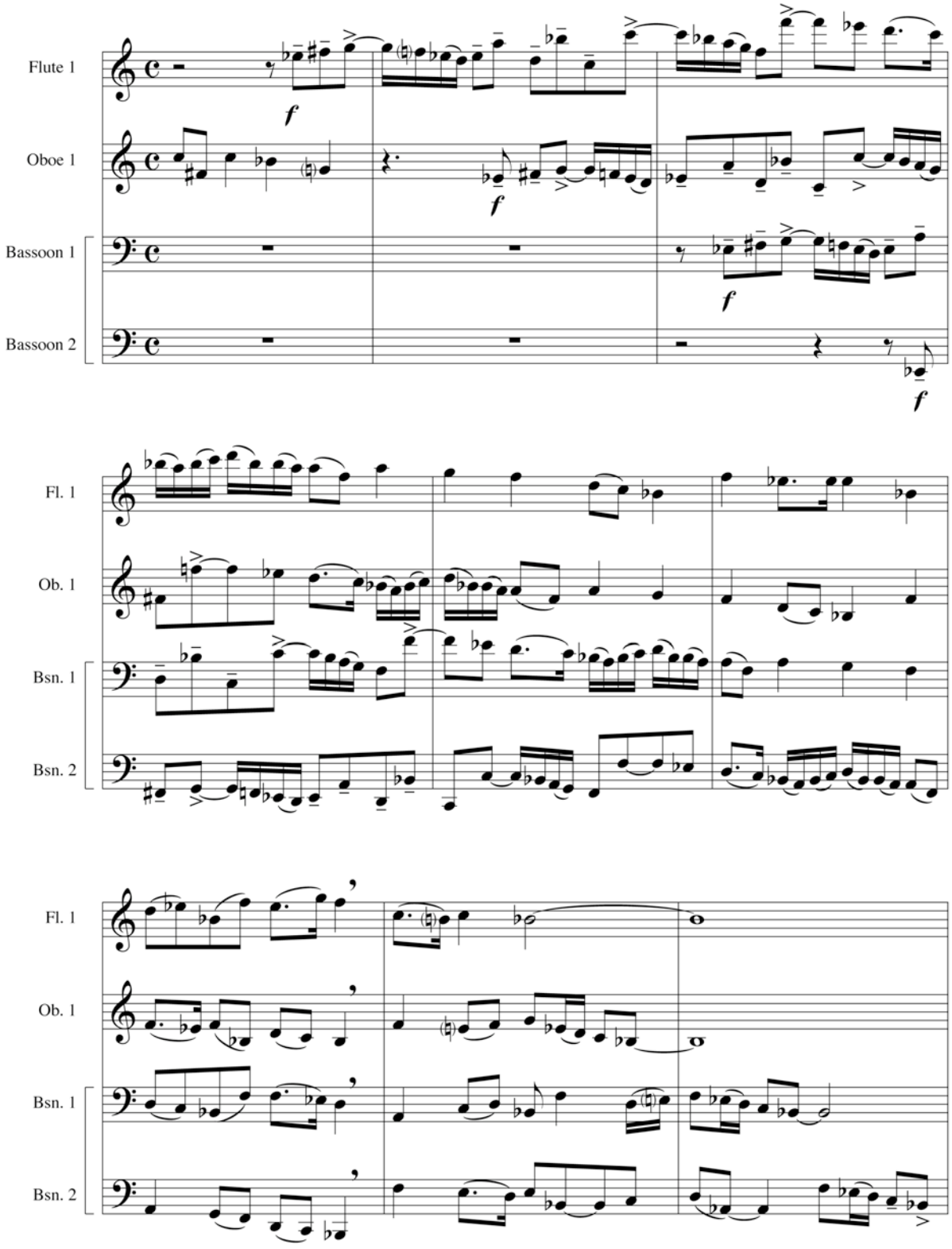
Ex. 133. Development of the "Main Progression." Symphony No. 1, Movement II, mm. 34-38.

After the luftpause, the texture thins to just the first oboe playing "2B" in B-flat minor and supported by the strings. The string accompaniment at this point is very different from the previously homophonic texture (see Ex. 134).



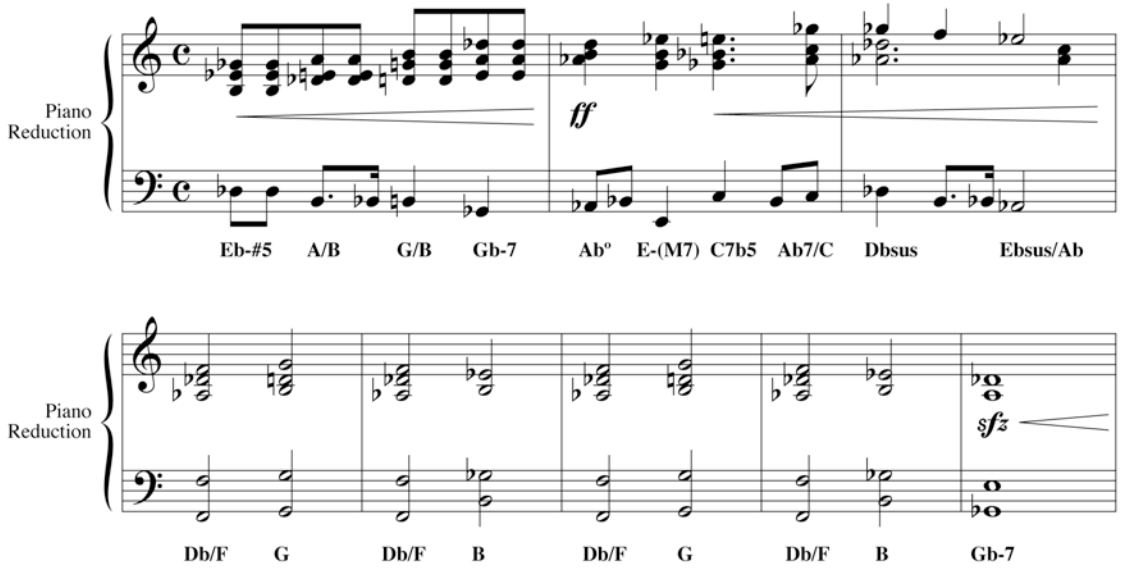
Ex. 134. Alberti-style string accompaniment. Symphony No. 1, Movement II, mm. 39-42.

This quasi-Alberti figure transfers to the woodwinds in F minor and then moves back to the strings in E-flat minor, where it then accompanies Theme "2A" played by the first oboe. This section leads into a four voice contrapuntal setting of "2A" played by the first flute, first oboe, and both bassoons. This section of counterpoint is at the interval of a unison, and delayed by three beats for each entrance (see Ex. 135).



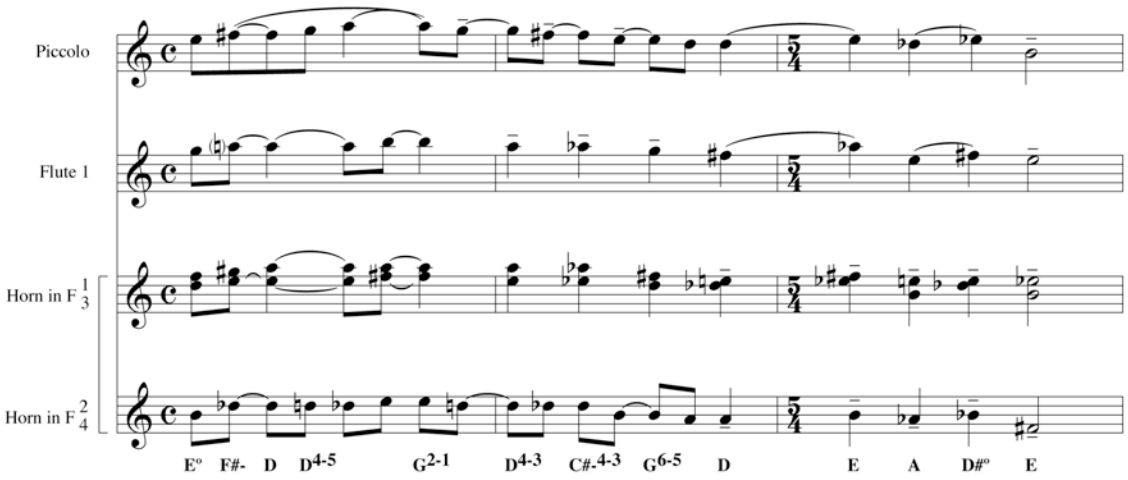
Ex. 135. Three beat counterpoint of Theme "2A." Symphony No. 1, Movement II, mm. 52-60.

Next, the basses and cellos take the lead with Theme "2A" harmonized by the oboes, clarinets, and the rest of the strings. This proceeds into the second and final climax of the movement performed by the brasses with embellishments by the piccolo, first flute and first and third horns (see Ex. 136).



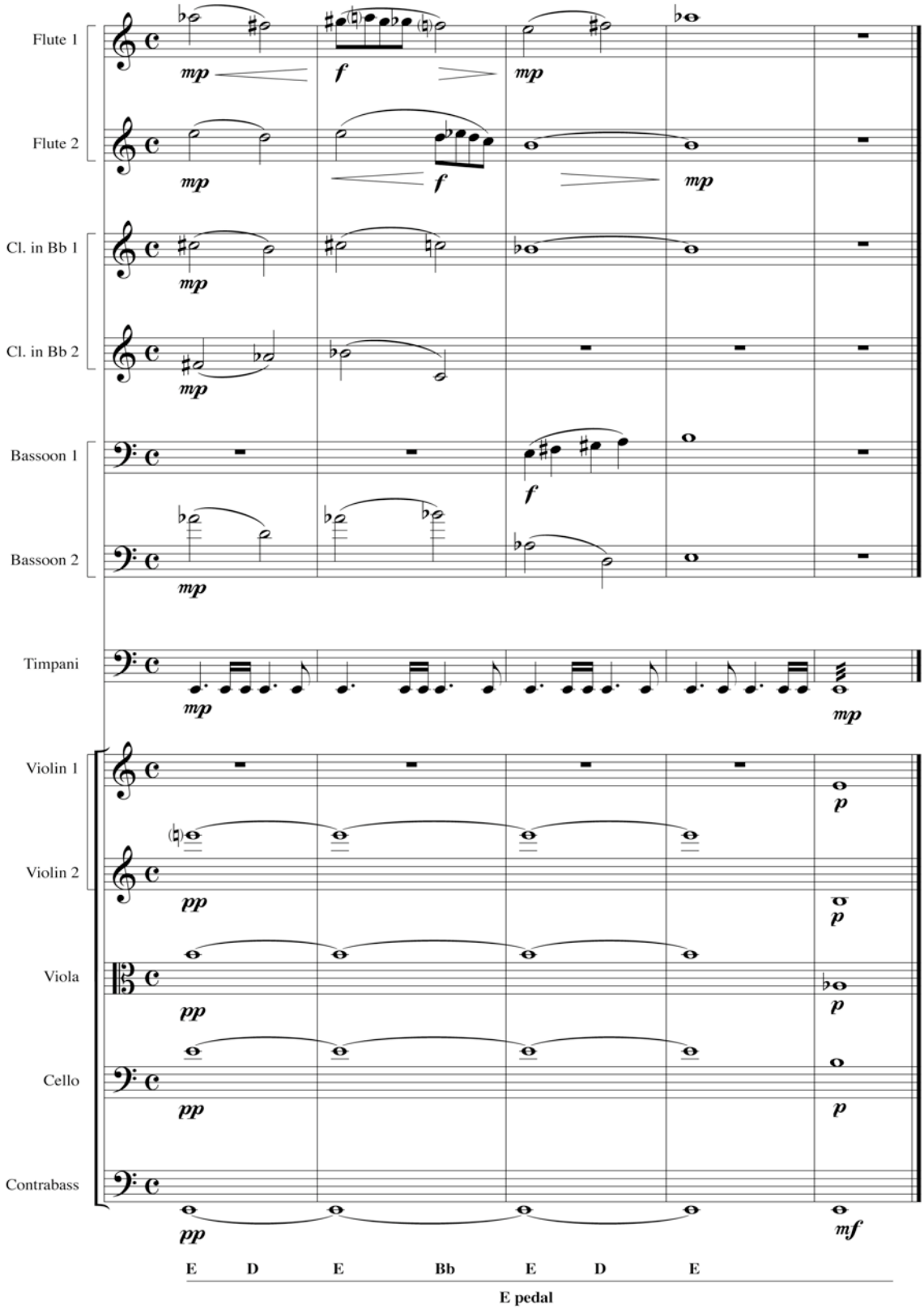
Ex. 136. The second climax of the second movement. Symphony No. 1, Movement II, mm. 66-73.

A final playing of Theme "2B," now centered on F-sharp, leads to a recapitulation of previous material, by way of a series of suspensions (see Ex. 137).



Ex. 137. A series of suspensions. Symphony No. 1, Movement II, mm. 82-84.

The recapitulative section repeats the four-and-a-quarter measure counterpoint of Theme "2A" all up a perfect fourth. The final measures consist of the second half of the "Main Progression" quietly played over an E pedal point and then an E major triad played only by the strings and timpani (see Ex. 138).



Ex. 138. The concluding measures of the second movement. Symphony No. 1, Movement II, mm. 94-98.

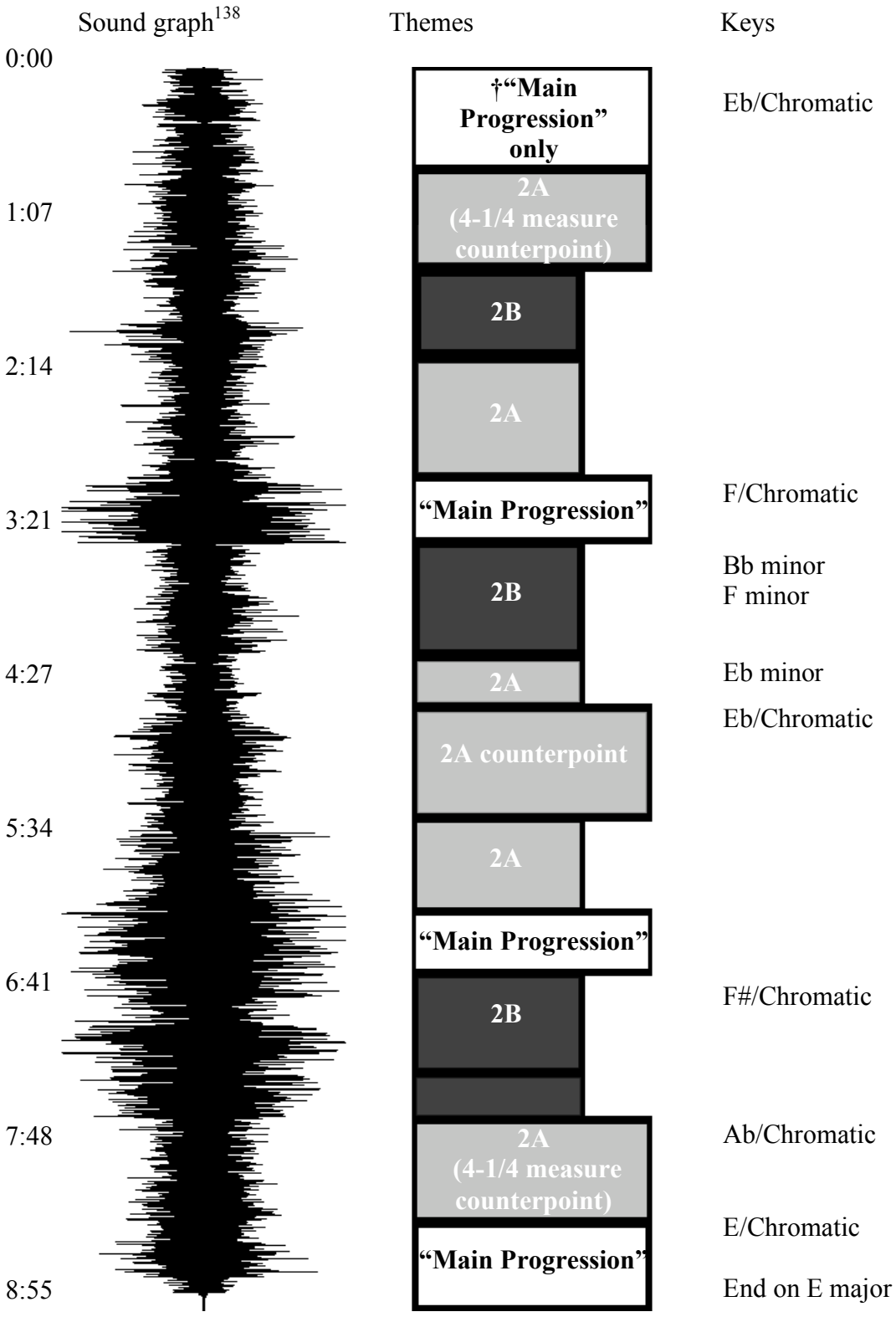


Figure 5. Sound graph, thematic use, and keys in Shaw, Symphony No. 1, movement II.
† A long box denotes strong use of the "Main Progression" (seven total).

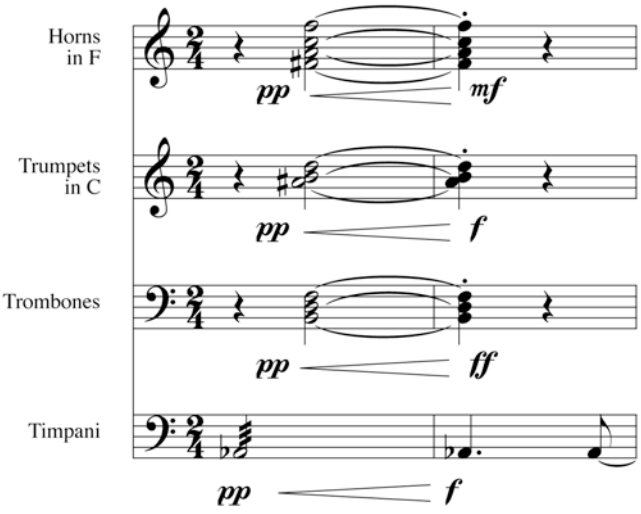
[138] A digital waveform image of a computer rendition of the score.

Movement III

The third and final movement of Symphony No. 1 is quick, dynamic, and the most dissonant. It contains six themes, all of which develop and pass throughout the orchestra. Unlike the first two movements, the third does not contain a “Main Motive” or "Main Progression" to tie the themes together. To unify the work, though, it uses a recurring, syncopated, dotted-quarter-eighth figure (designated the "Main Rhythm").

This movement moves at a frantic pace and has four contrasting sections, with the first and last being similar. Each section treats various themes in different ways and against various accompaniment textures.

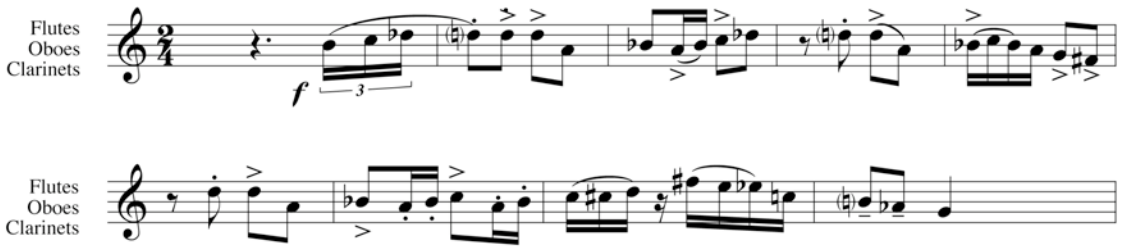
The movement begins with a loud, sforzando-like swell in the brasses and timpani (see Ex. 139).



Ex. 139. Opening sforzando in the brasses and timpani. Symphony No. 1, Movement III, mm. 1-2.

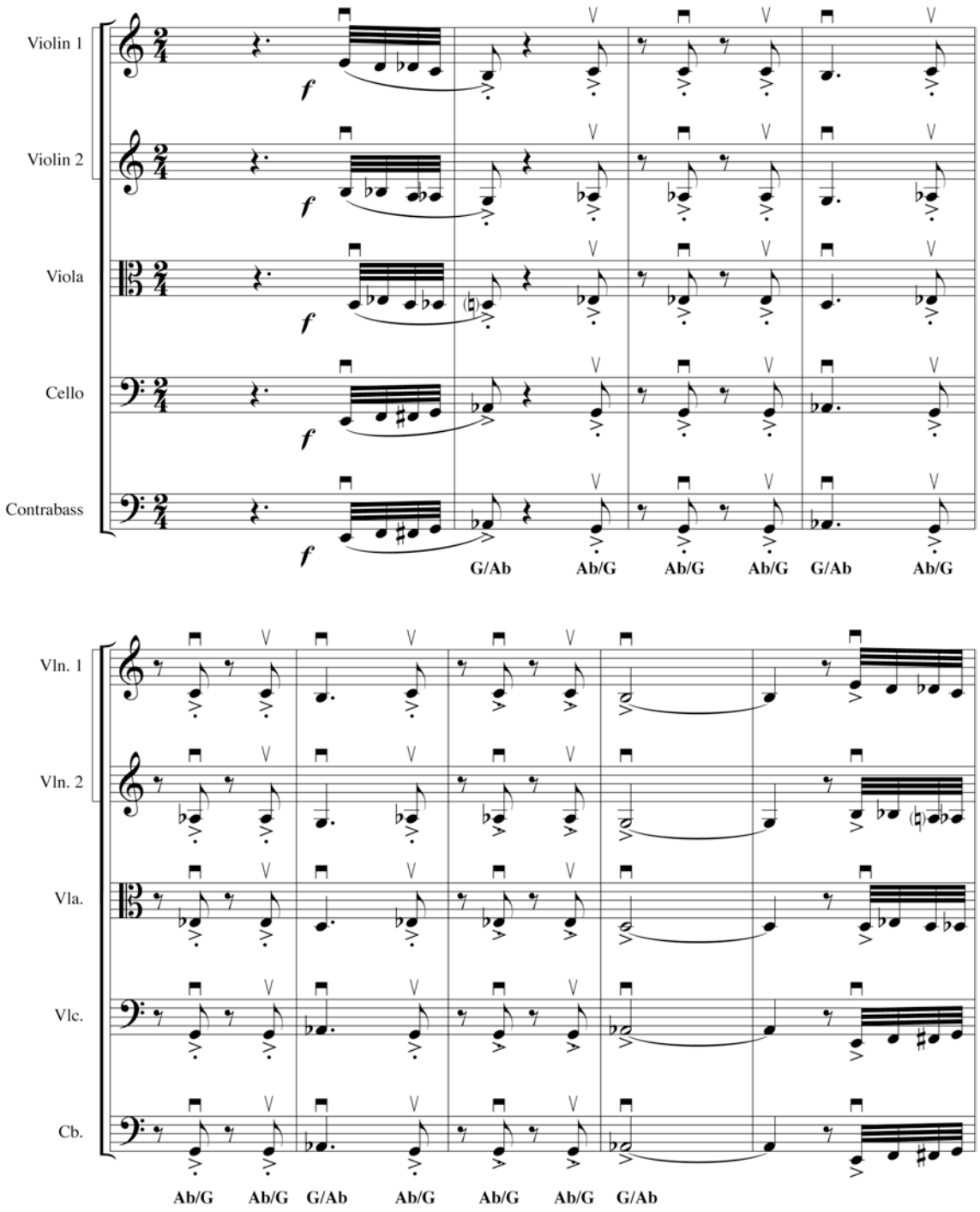
These dissonant swells occur frequently in the movement and add to its frantic nature. The preceding example consists of a respelled fully diminished chord starting on A-flat with an added major ninth.

Immediately after the brasses begin playing, the flutes, oboes, and clarinets burst in with the first theme, "3A" (see Ex. 140).



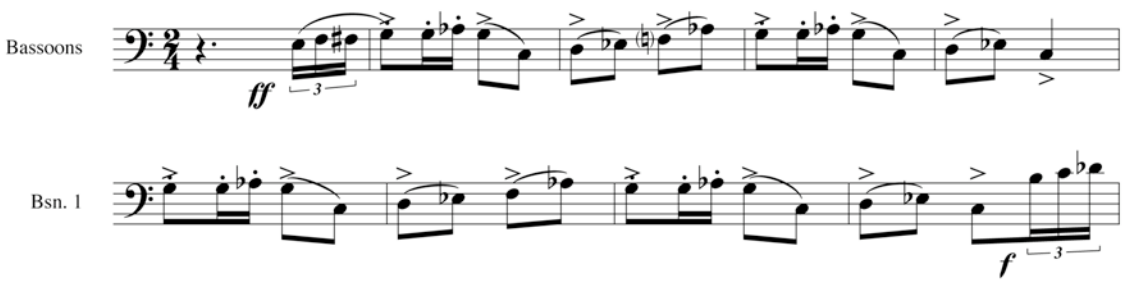
Ex. 140. Theme "3A" played by the flutes, oboes, and clarinets. Symphony No. 1, Movement III, mm. 1-9.

The basis of this theme is G minor with alternate intervals. However, the strings provide a chromatic accompaniment by playing two opposite polychords in a pattern which contains the movement's syncopated "Main Rhythm" of a dotted quarter and an eighth (see Ex. 141).



Ex. 141. Strings playing an accompaniment to Theme "3A," containing the movement's syncopated "Main Rhythm" of a dotted quarter and an eighth. Symphony No. 1, Movement III, mm. 1-9.

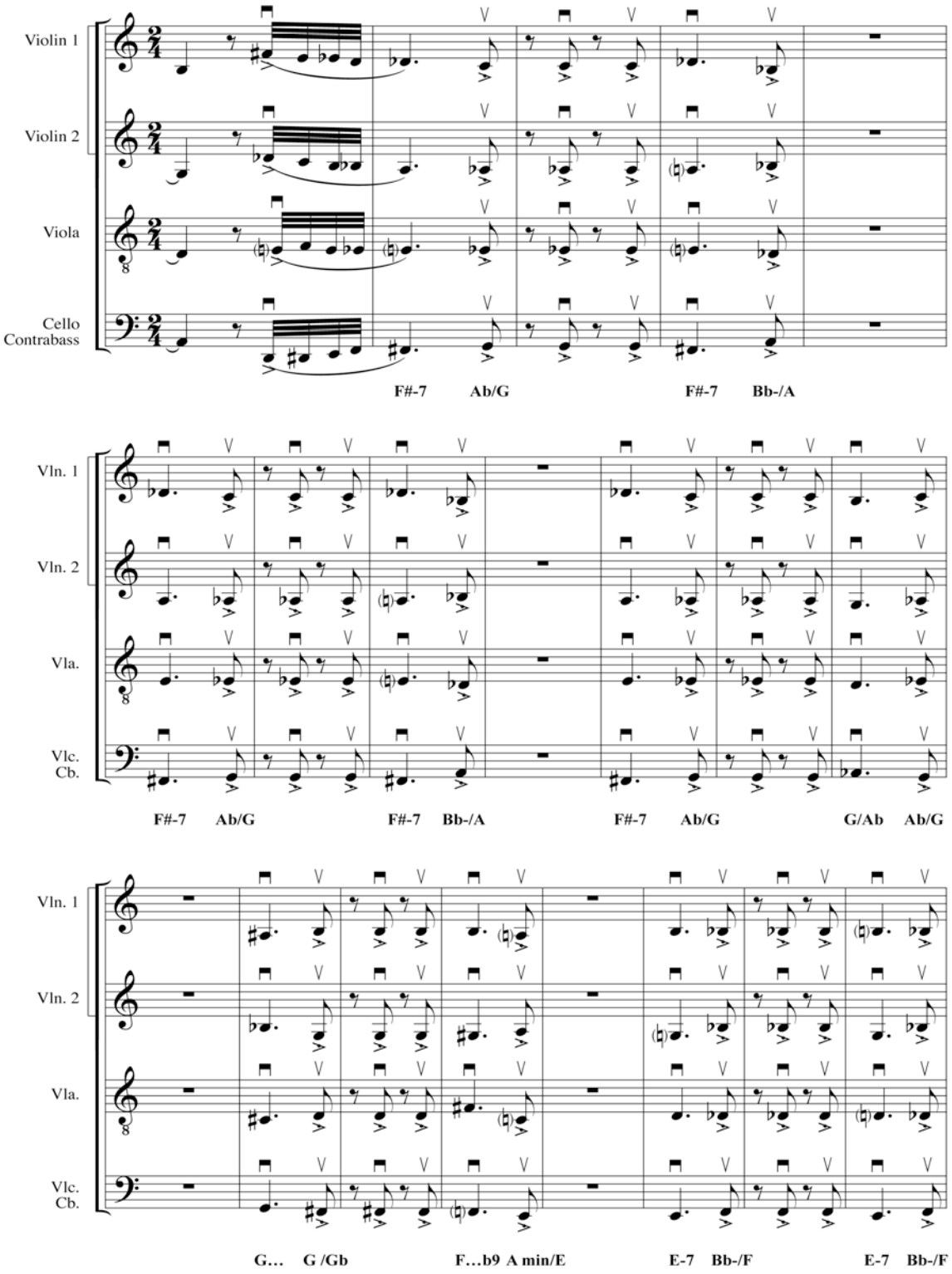
After Theme "3A" and another brass swell, the bassoons play an ostinato borrowed from the first movement (see Ex. 142 below and Ex. 117, page 152).



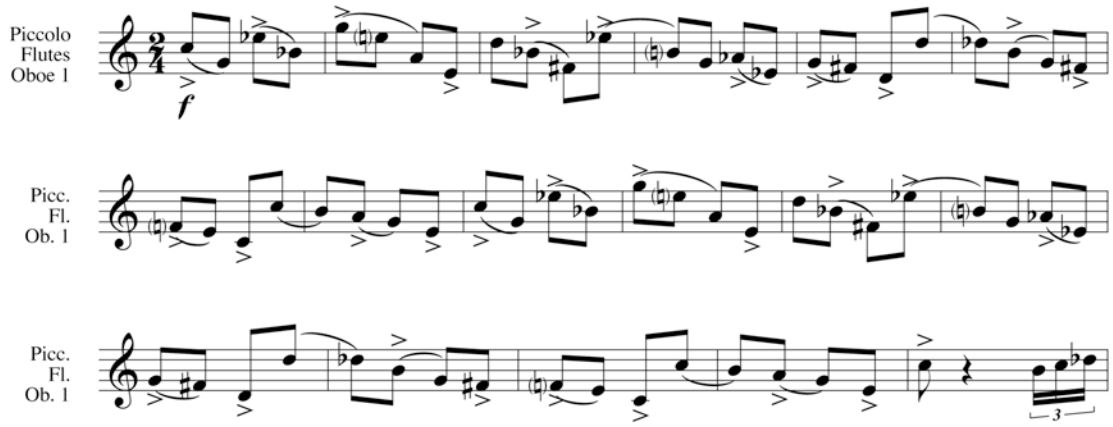
Ex. 142. Ostinato borrowed from the first movement. Symphony No. 1, Movement III, mm. 9-17.

Although the notes of the ostinato mostly fit into G Phrygian, the strings continue to accompany it with their chromatic, polychordal material. Additionally, the percussion enter to accentuate the pulse. After another brass swell, the flutes, oboes, clarinets, and now bassoons, play "3A" once more to the same accompaniment, including percussion.

Next, the strings continue their polychordal texture, but with new chromatic harmony (see Ex. 143); this sets up the second theme, "3B," played by the piccolo, flutes, and first oboe (see Ex. 144).



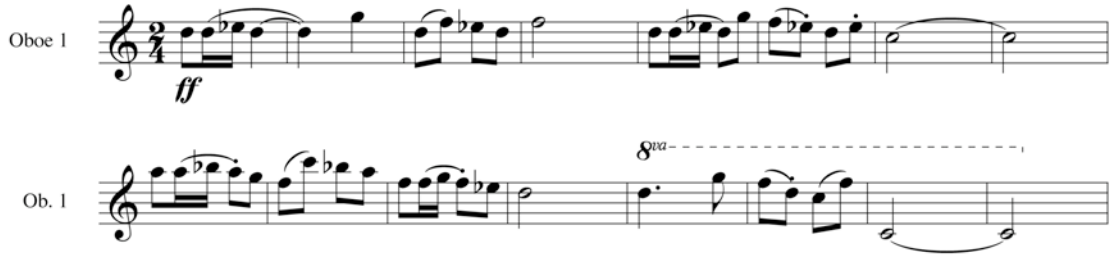
Ex. 143. Strings playing an accompaniment to Theme "3B," containing the movement's syncopated "Main Rhythm." Symphony No. 1, Movement III, mm. 25-44.



Ex. 144. Theme "3B" played by the piccolo, flutes, and first oboe. Symphony No. 1, Movement III, mm. 34-50.

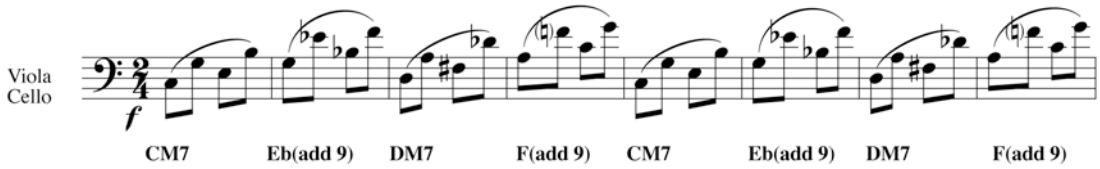
Theme "3B" is less melodic, but more harmonic than the first theme; its linear notes generally outline pantriadic harmony.

Theme "3A" plays one more time as before and then the string accompaniment changes (see below). A single oboe plays the next theme, "3C1" (see Ex. 145), which is part of a group of three related themes ("3C1," 3C2," and "3C3") that play against each other later. These themes also generally have the same accompaniment.



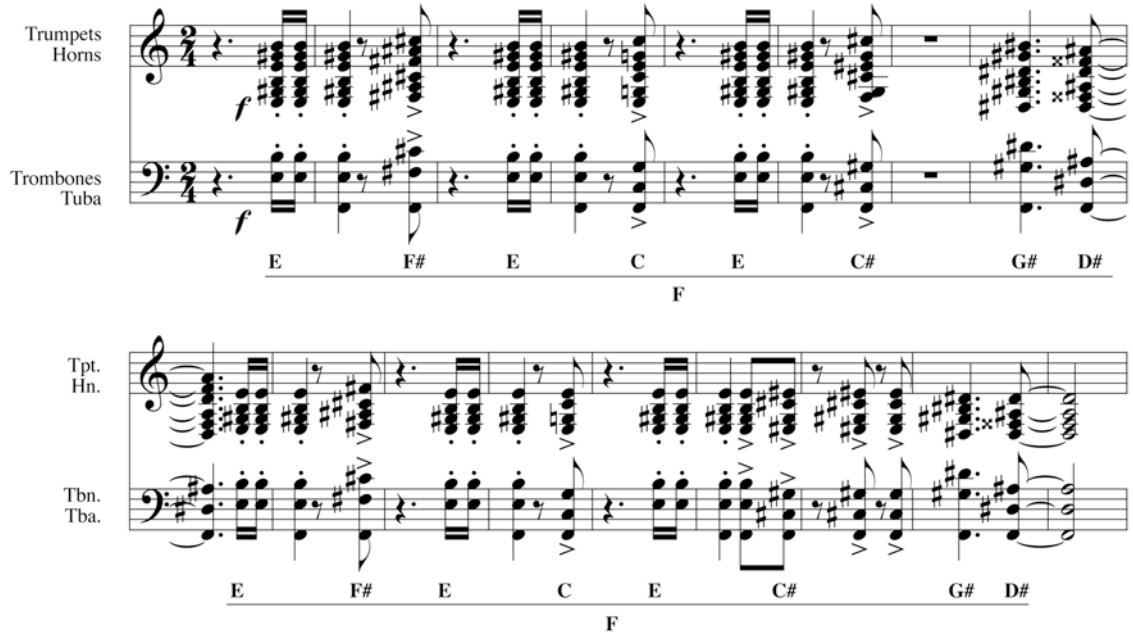
Ex. 145. Theme "3C1" played by the first oboe. Symphony No. 1, Movement III, mm. 59-74.

Theme "3C1" is in C Dorian, but is harmonized against a monophonic, though pantriadic, line by the violas and cellos (see Ex. 146).



Ex. 146. Accompaniment to Theme "3C1" played by the violas and cellos. Symphony No. 1, Movement III, mm. 58-65.

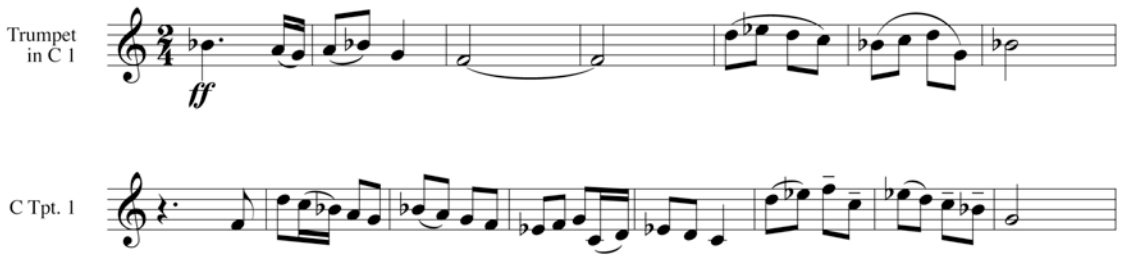
Theme "3D" follows, played by the brasses (see Ex. 147).



Ex. 147. Theme "3D" played by the brasses. Symphony No. 1, Movement III, mm. 74-90.

Theme "3D" is a pantriadic, chordal theme over a chromatic pedal with every other measure matching the "Main Rhythm." Meanwhile, the violas and cellos have been continuing their previous pantriadic accompaniment.

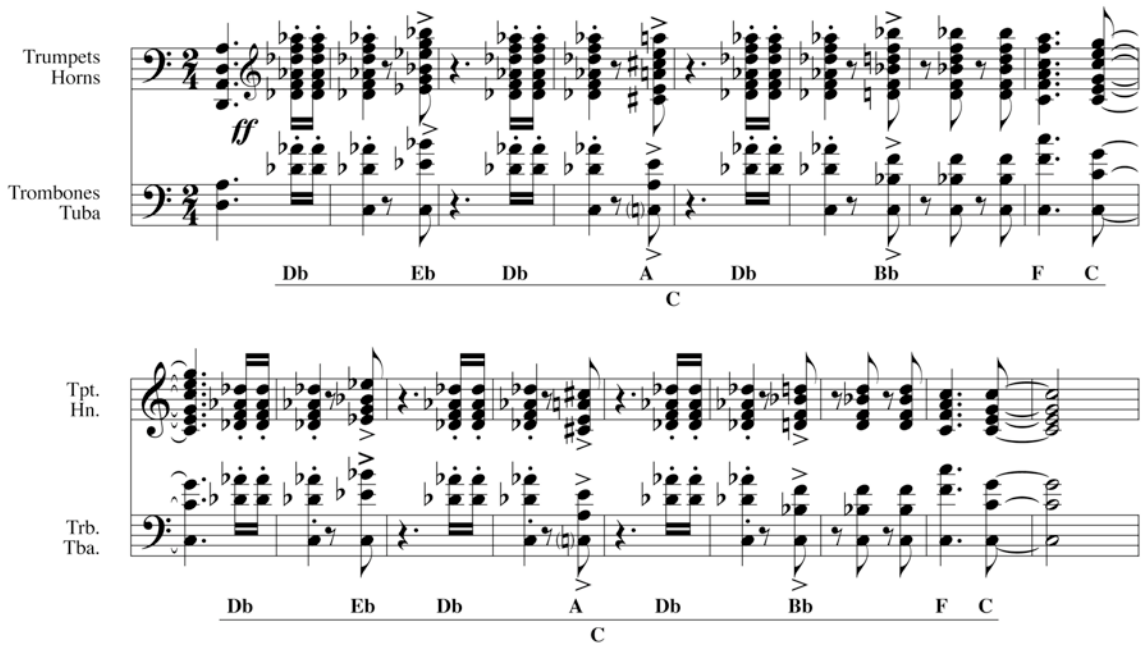
Next, the violas continue without the cellos and the piccolo, and the bassoons briefly play the ostinato borrowed from the first movement. Afterwards, the cellos and contrabasses rejoin the accompaniment of the viola. Also, the first trumpet presents Theme "3C2" in C Dorian (see Ex. 148), but with the continued chromatic accompaniment.



Ex. 148. Theme "3C2" played by the first trumpet. Symphony No. 1, Movement III, mm. 99-113.

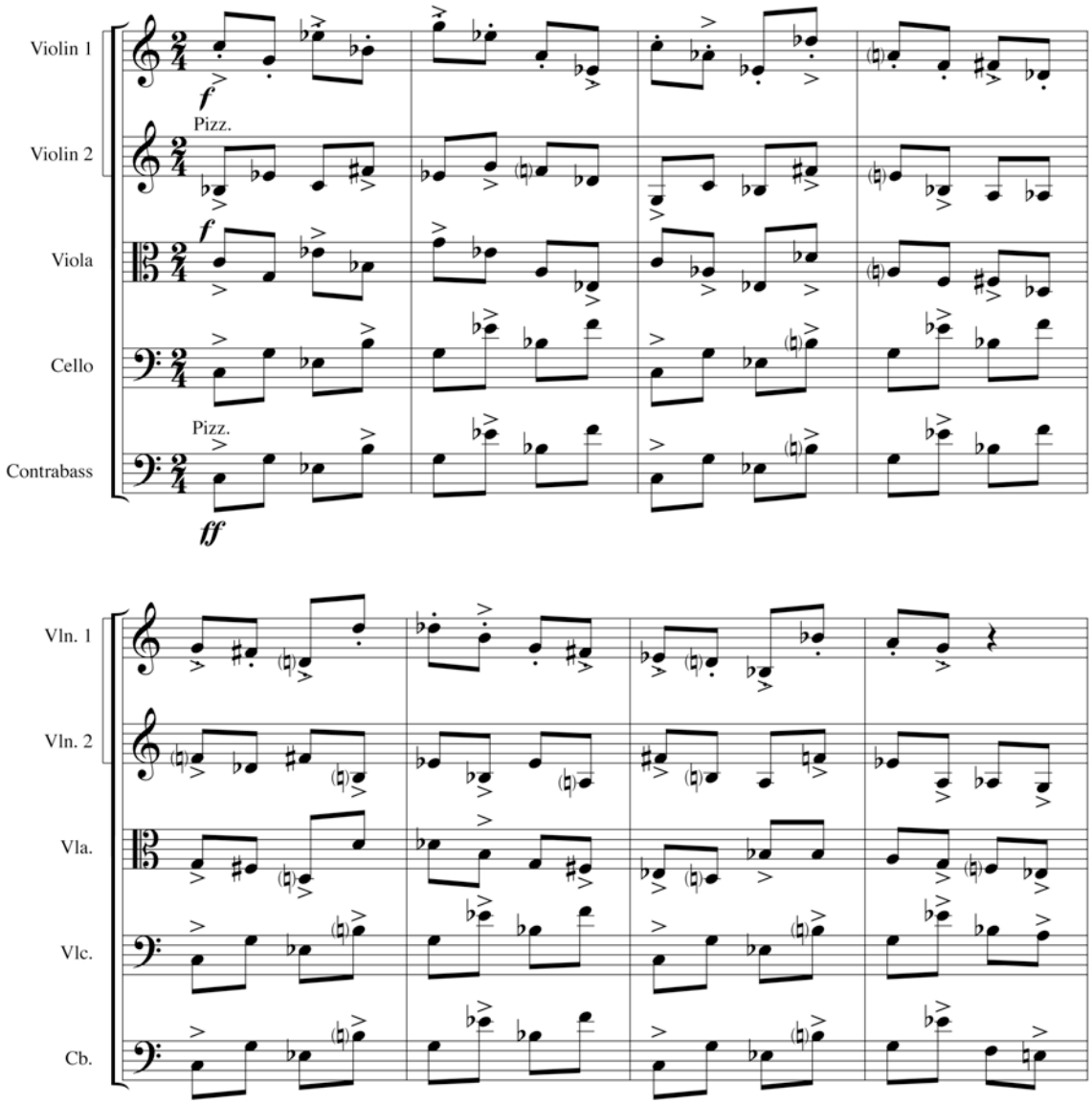
Halfway through "3C2," the bassoons, low brass, and percussion enter and accentuate the "Main Rhythm."

Theme "3D" returns in the brasses, transposed down the equivalent of a minor third, but over a changed chromatic pedal (see Ex. 149).



Ex. 149. Transposed Theme "3D" with a changed chromatic pedal. Symphony No. 1, Movement III, mm. 114-130.

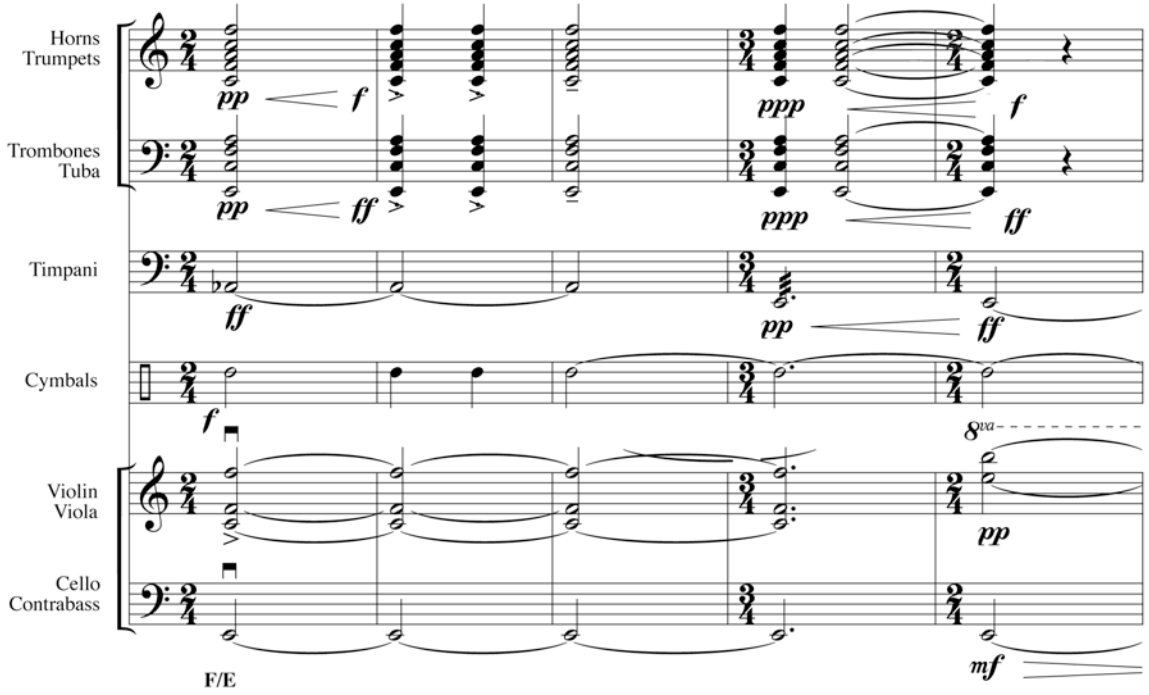
As the brasses play Theme "3D" transposed, the string accompaniment merges in Theme "3B" and grows into a pattern of tone clusters produced through individual lines (see Ex. 150).



Ex. 150. Tone clusters based on Theme "3B" and produced through polyphony. Symphony No. 1, Movement III, mm. 115-122.

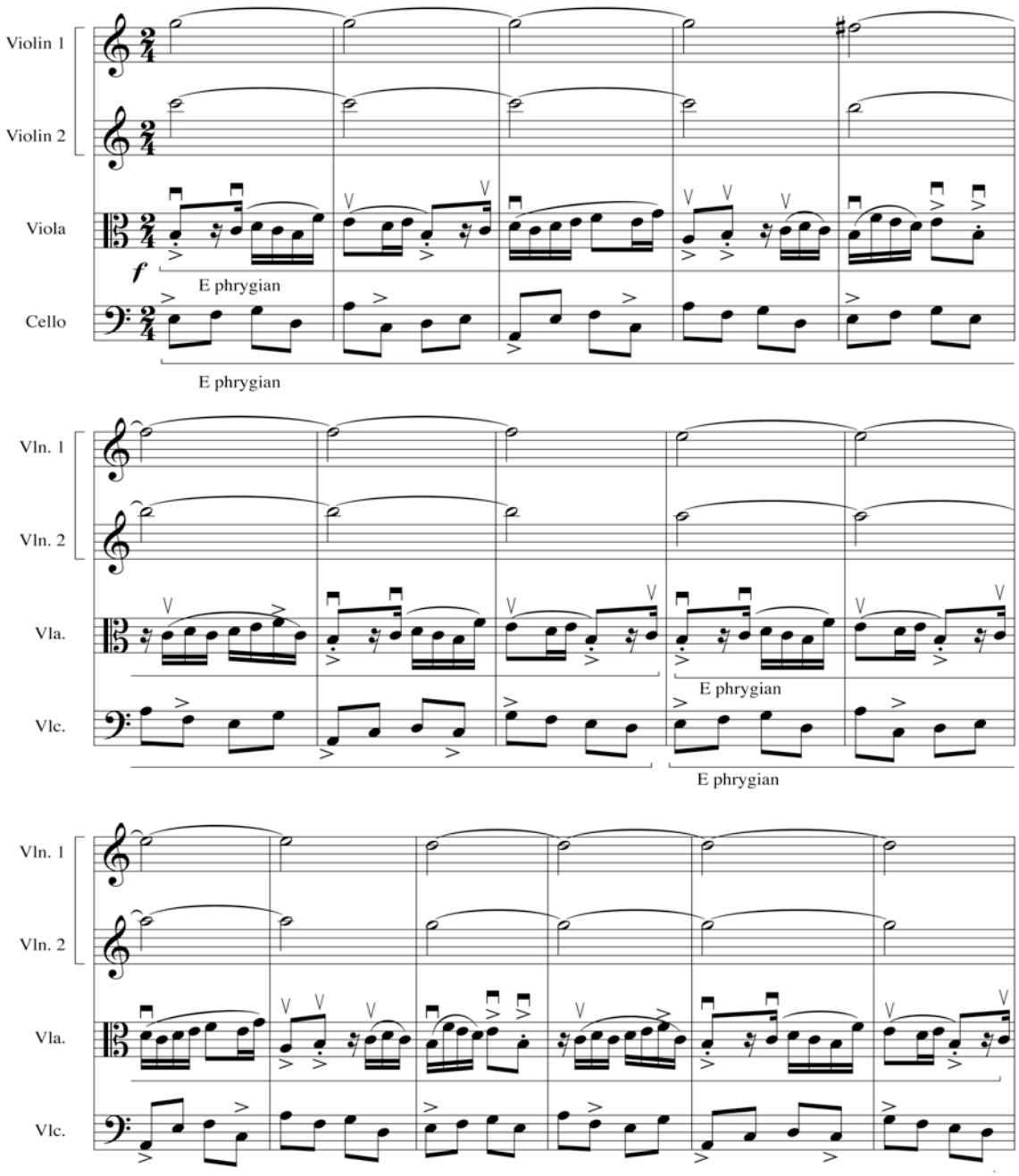
Next, to round off this movement's first section, all the woodwinds play Theme "3A" twice, first transposed up a major third to B minor, and then from there transposed down a perfect fifth. Theme "3B" follows also transposed up a major third.

As a transition to the movement's second section, the driving rhythm stops and the brasses play a large, dynamic polychord (see Ex. 151).



Ex. 151. Transition to the second section. Symphony No. 1, Movement III, mm. 171-175.

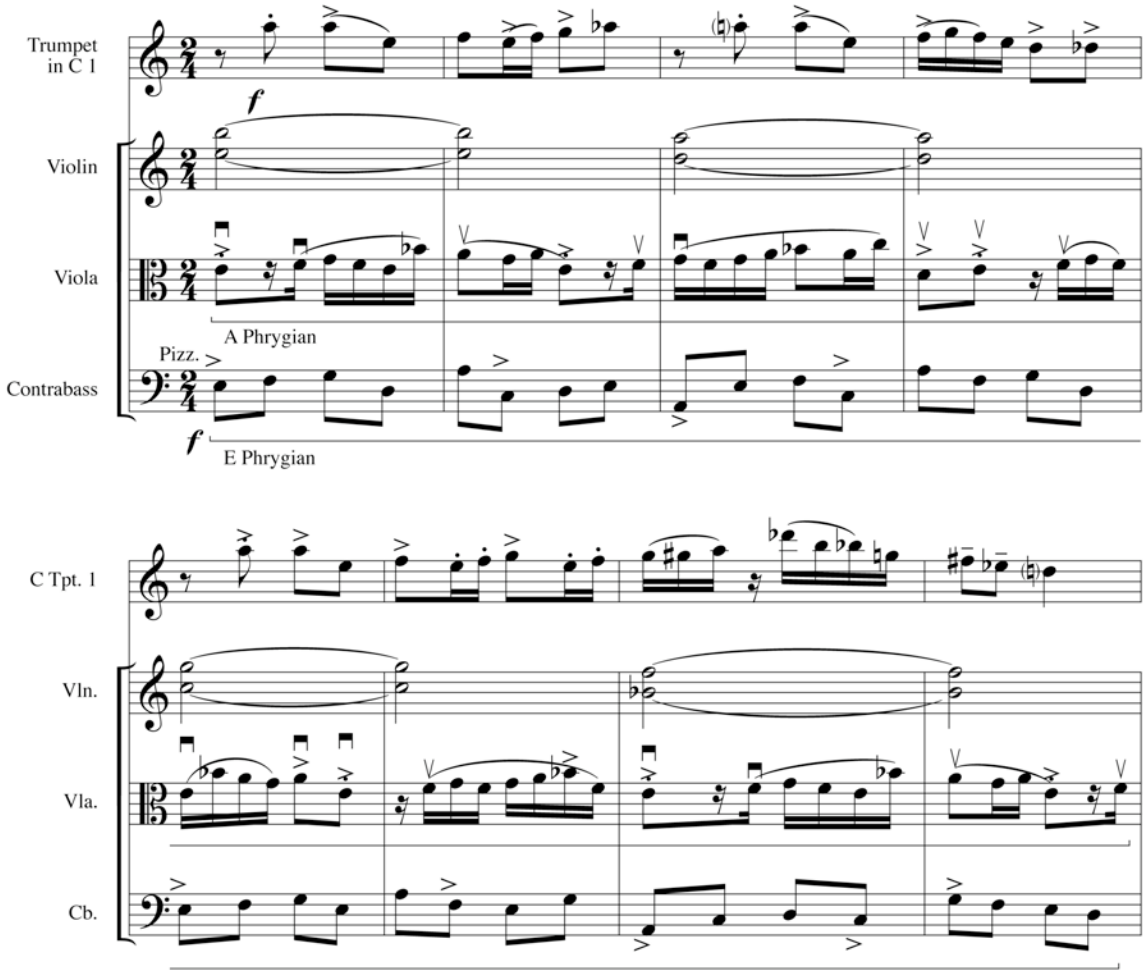
This dissonant structure gives way to the new string accompaniment pattern consisting of two ostinatos in E Phrygian (see Ex. 152), which supports most of the second section.



Ex. 152. Two ostinatos in E Phrygian. Symphony No. 1, Movement III, mm. 183-198.

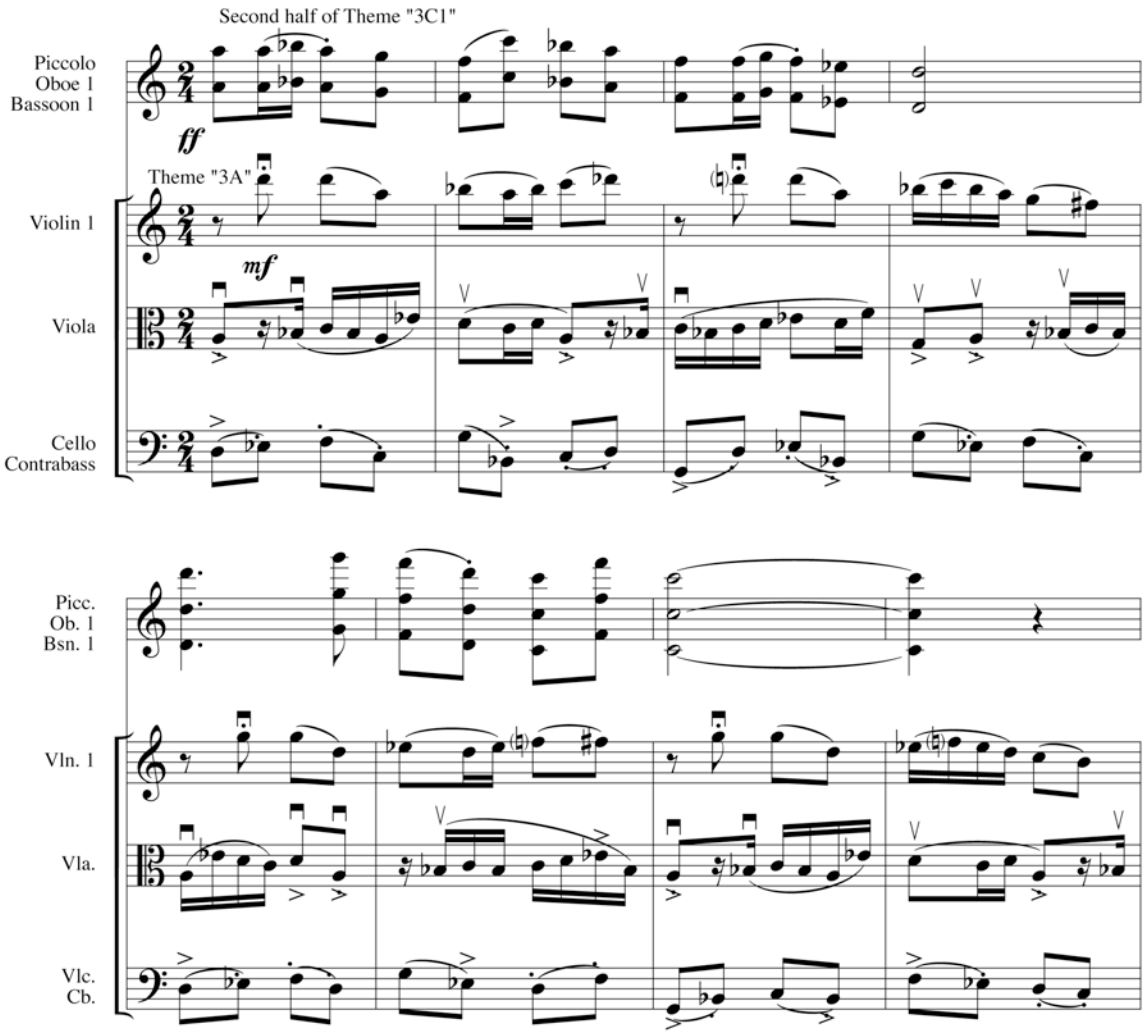
As the string accompaniment continues, a solo flute plays Theme "3A" in A minor (matching the accompaniment's E Phrygian). Next, the first trumpet plays the same

theme up a perfect fourth while only the upper part of the accompaniment changes to match keys (see Ex. 153).



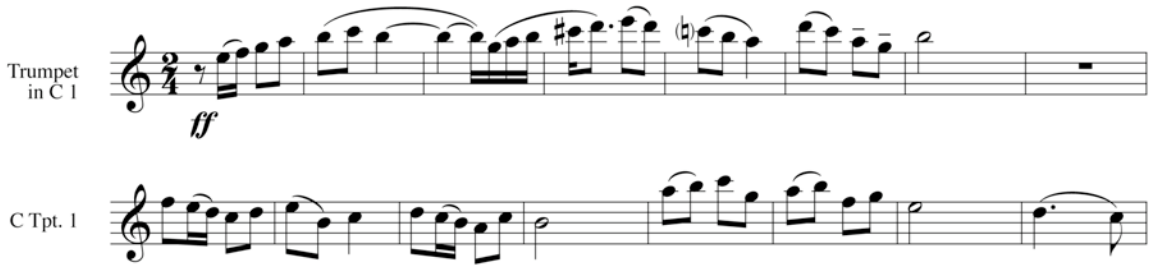
Ex. 153. Theme "3A" in the first trumpet and mixed modal ostinatos in the strings. Symphony No. 1, Movement III, mm. 199-206.

The accompaniment then moves to D Phrygian and the piccolo and first oboe play Theme "3C1" in that key. Halfway through this theme, the bassoons join in and the first violins integrate a fragment of Theme "3A" (see Ex. 154).



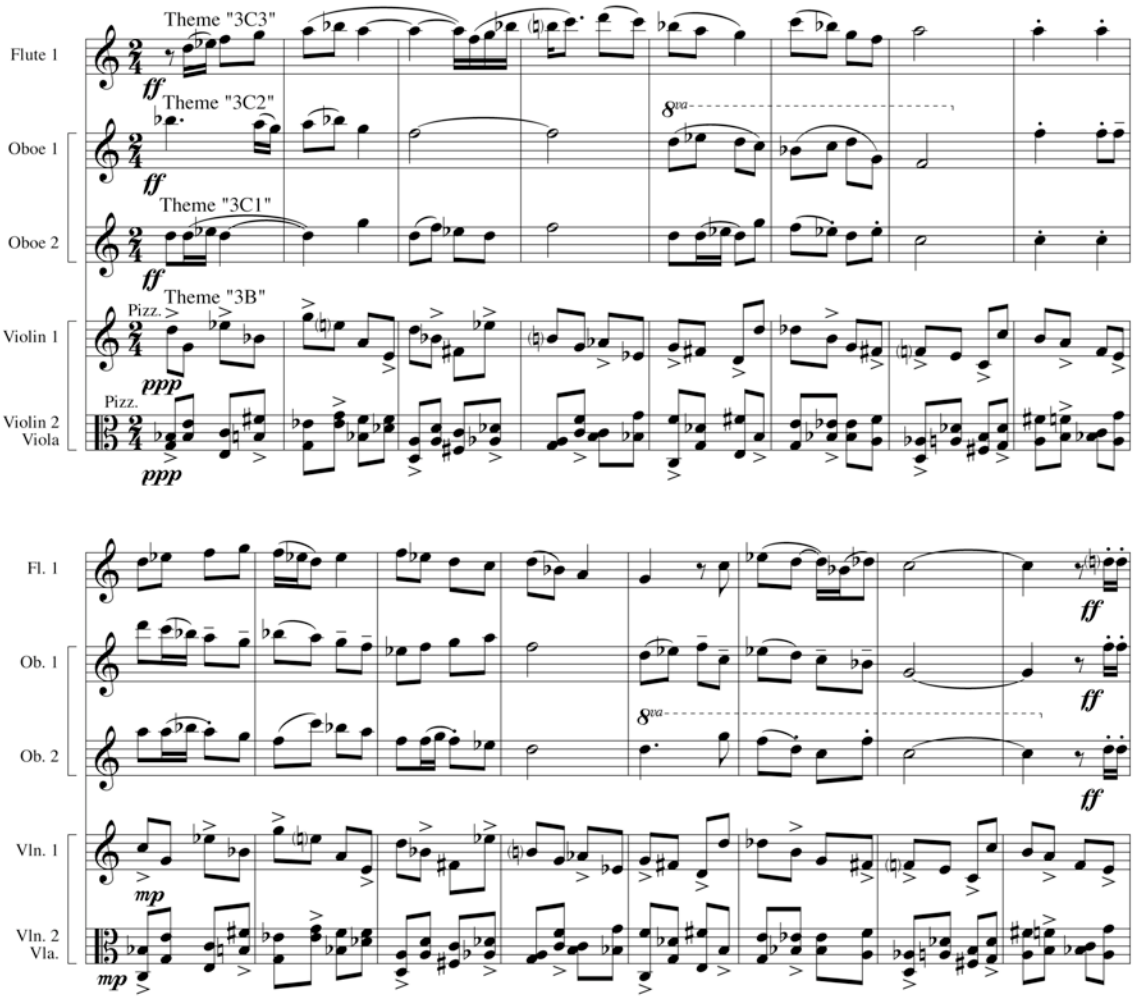
Ex. 154. Second half of Theme "3C1" with Theme "3A." Symphony No. 1, Movement III, mm. 215-222.

Afterwards, the accompaniment returns to E Phrygian and the first trumpet introduces a new theme, "3C3," in that key (see Ex. 155).



Ex. 155. Theme "3C3" played by the first trumpet. Symphony No. 1, Movement III, mm. 223-238.

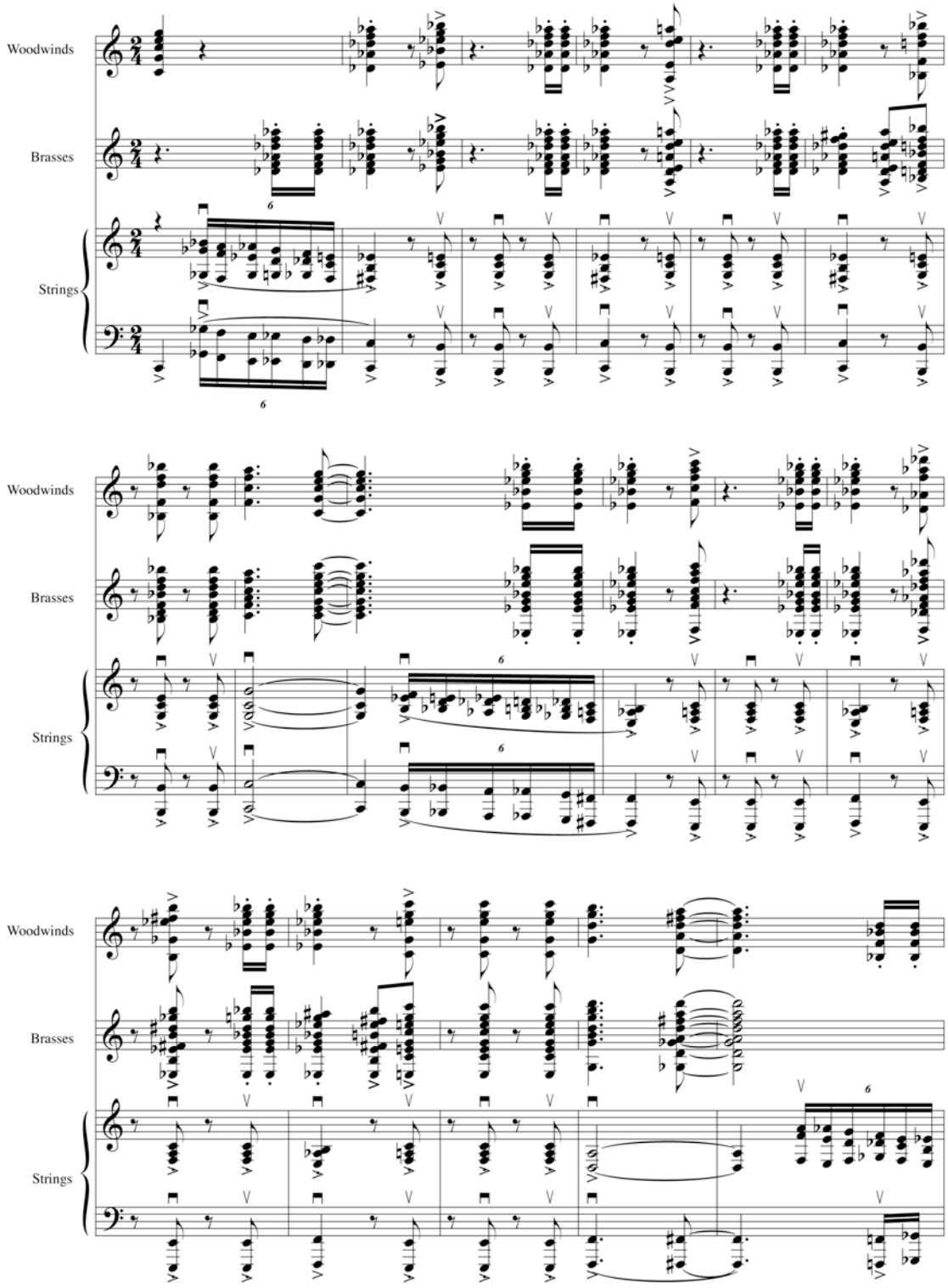
Next, the first flute and oboes play Themes "3C1," "3C2," and "3C3" together, creating pandiatonic counterpoint in the key of D Phrygian. However, in conjunction with these three themes, the strings play a chromatic accompaniment based on, and including, Theme "3B" (see Ex. 156).



Ex. 156. Combination of Themes "3C1," "3C2," "3C3," and "3B." Symphony No. 1, Movement III, mm. 239-254.

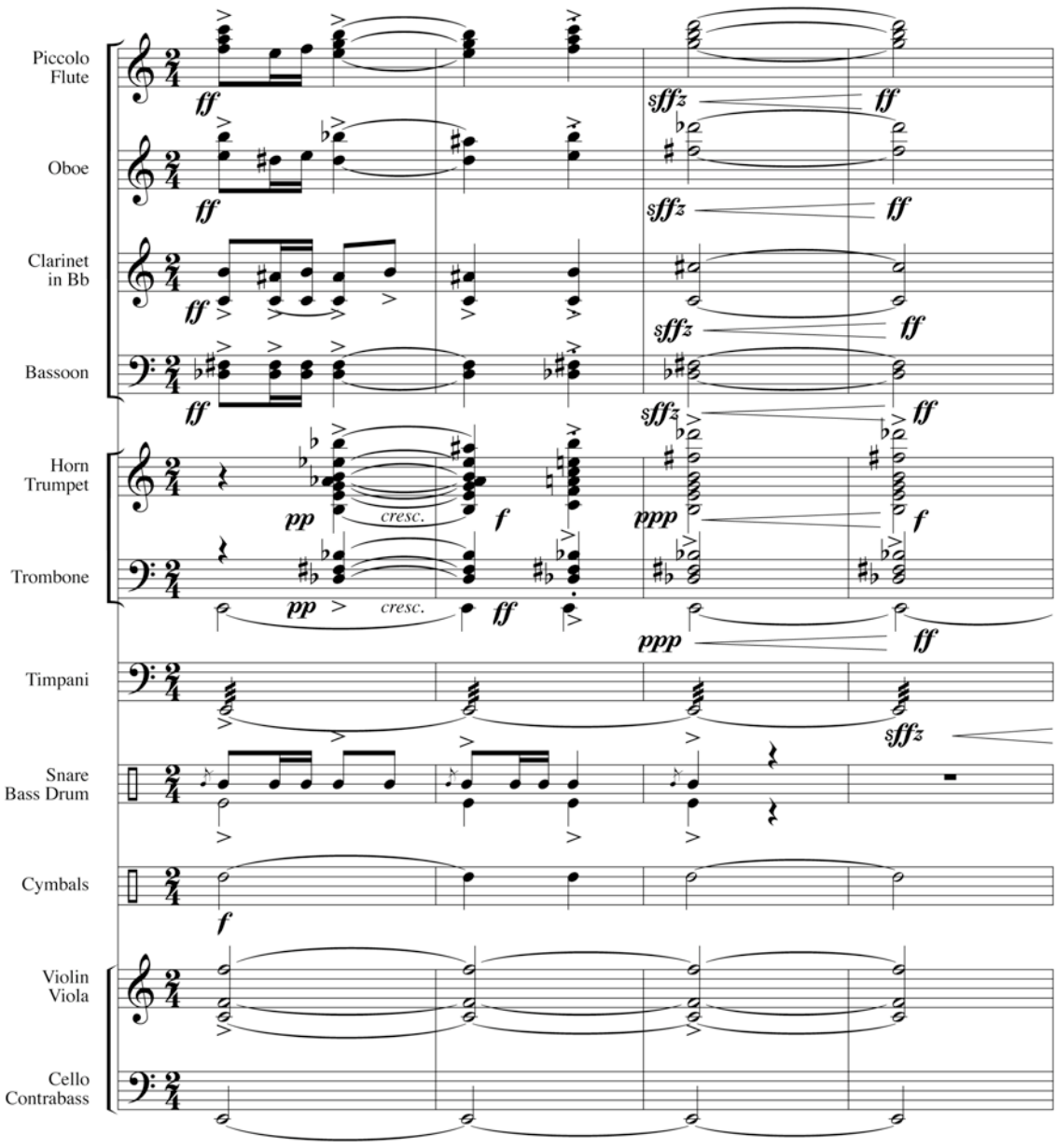
Halfway through this combination of themes, the clarinets, bassoons, cellos, and contrabasses integrate the "Main Rhythm."

Finally, to end this second section of the movement, Theme "3D" returns twice, first in the woodwinds and then joined by the brasses. The first time through, the strings accompany with the polyphonic tone clusters based on Theme "3B." The second time, they play the opening accompaniment material to Theme "3A" (see Ex. 157).



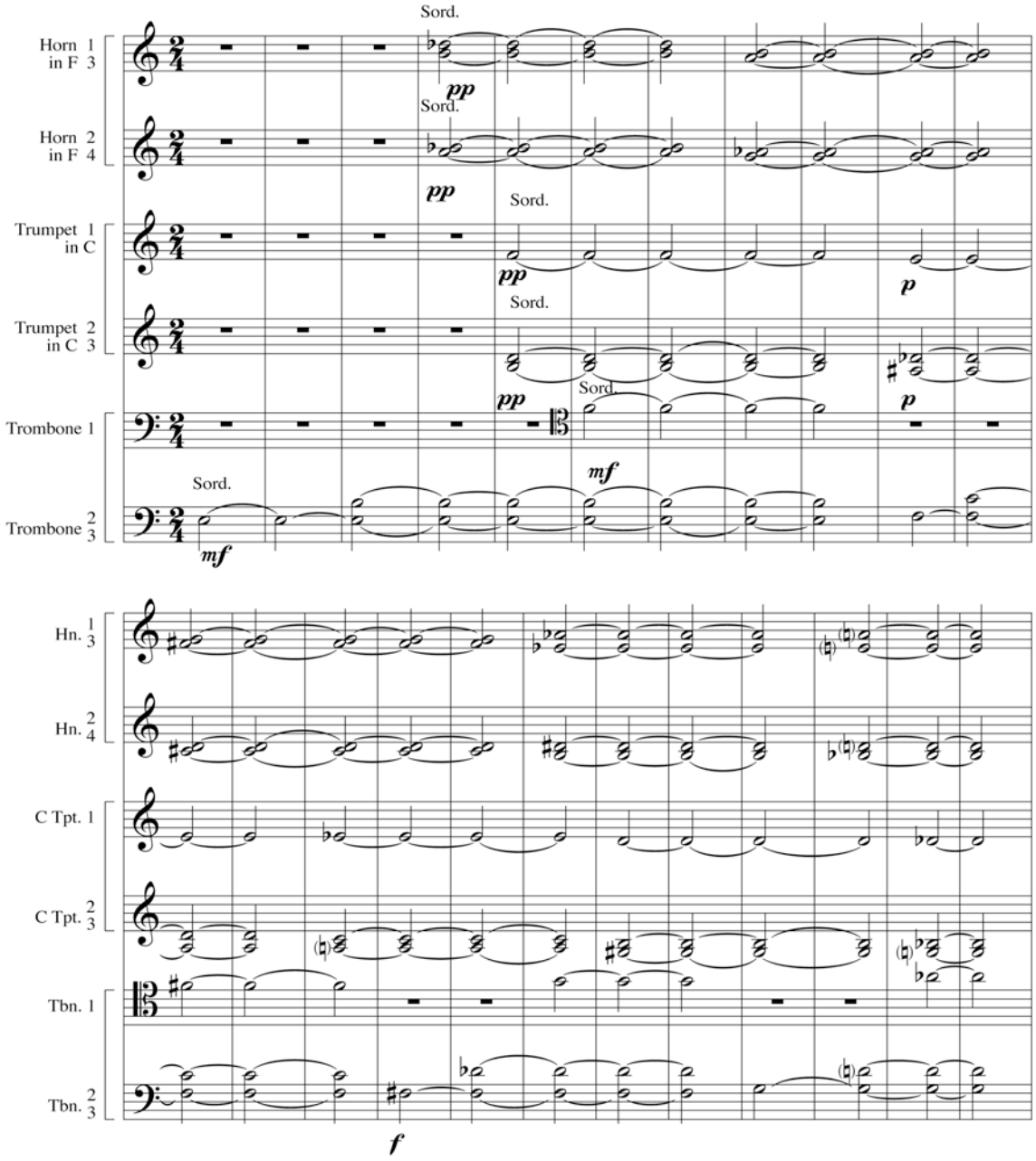
Ex. 157. Development of Theme "3D" by the woodwinds and brasses combined with string accompaniment, all punctuating the "Main Rhythm." Symphony No. 1, Movement III, mm. 270-286.

Tone clusters then help make the transition to the third section (see Ex. 158).



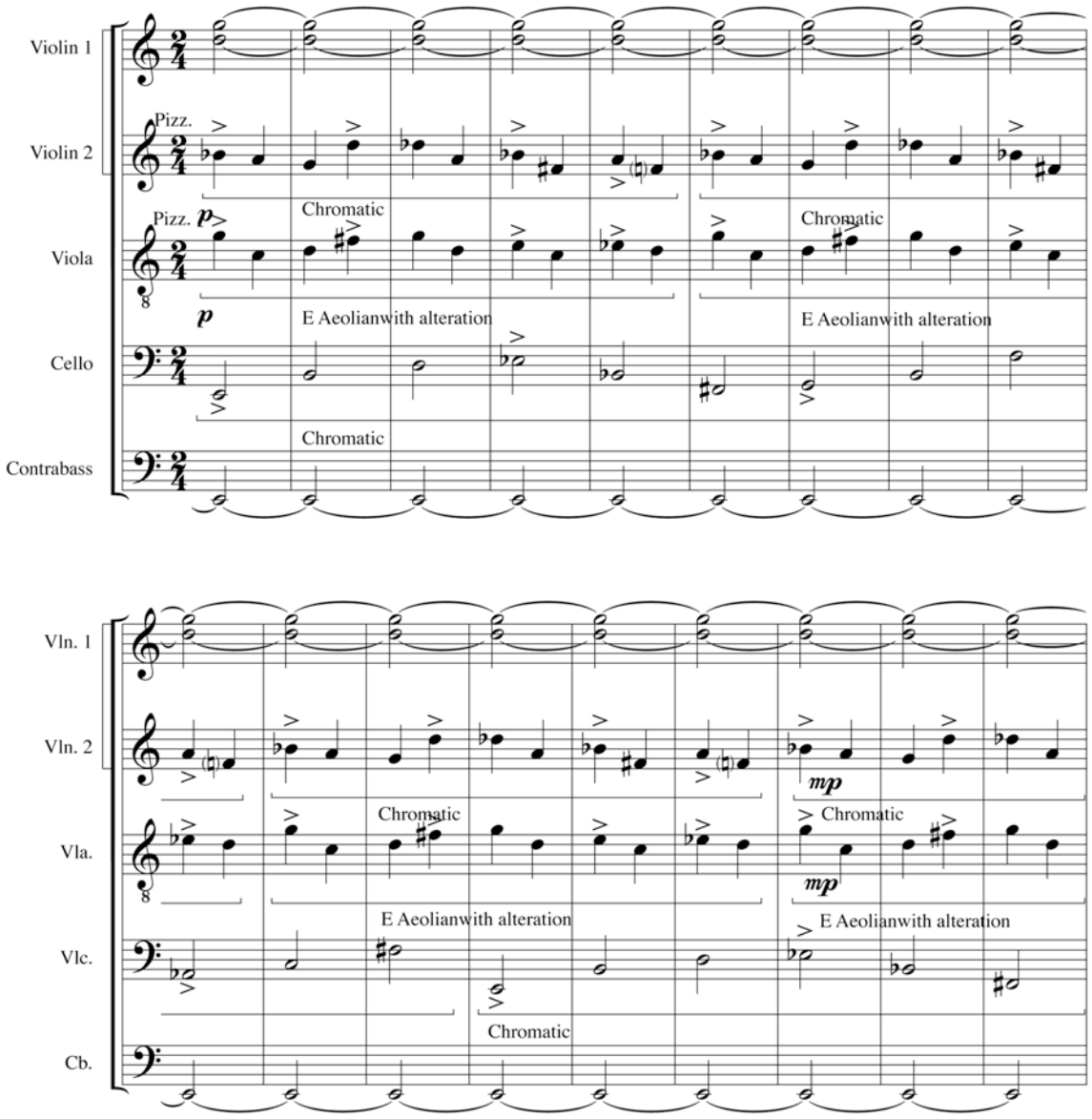
Ex. 158. Tone clusters in the transition to the third section. Symphony No. 1, Movement III, mm. 296-299.

Tone clusters also occur later, played by muted brasses (see Ex. 159).



Ex. 159. Tone clusters in the muted brasses. Symphony No. 1, Movement III, mm. 306-328.

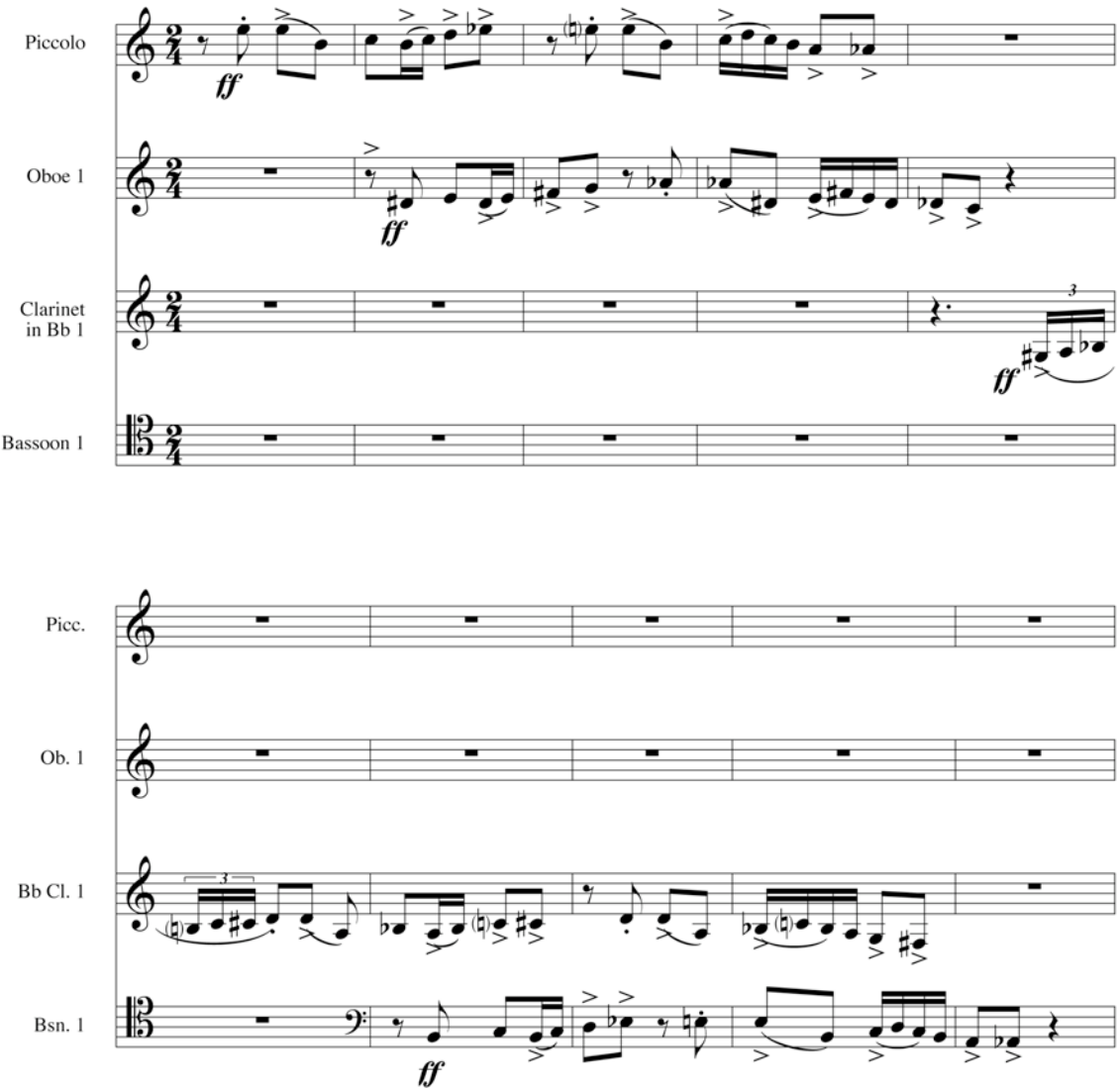
Next, various instruments play multiple theme fragments. The accompaniment to this develops into overlapping modal and chromatic ostinatos played by the strings above an E pedal (see Ex. 160).



Ex. 160. Overlapping modal and chromatic ostinatos in the strings. Symphony No. 1, Movement III, mm. 329-346.

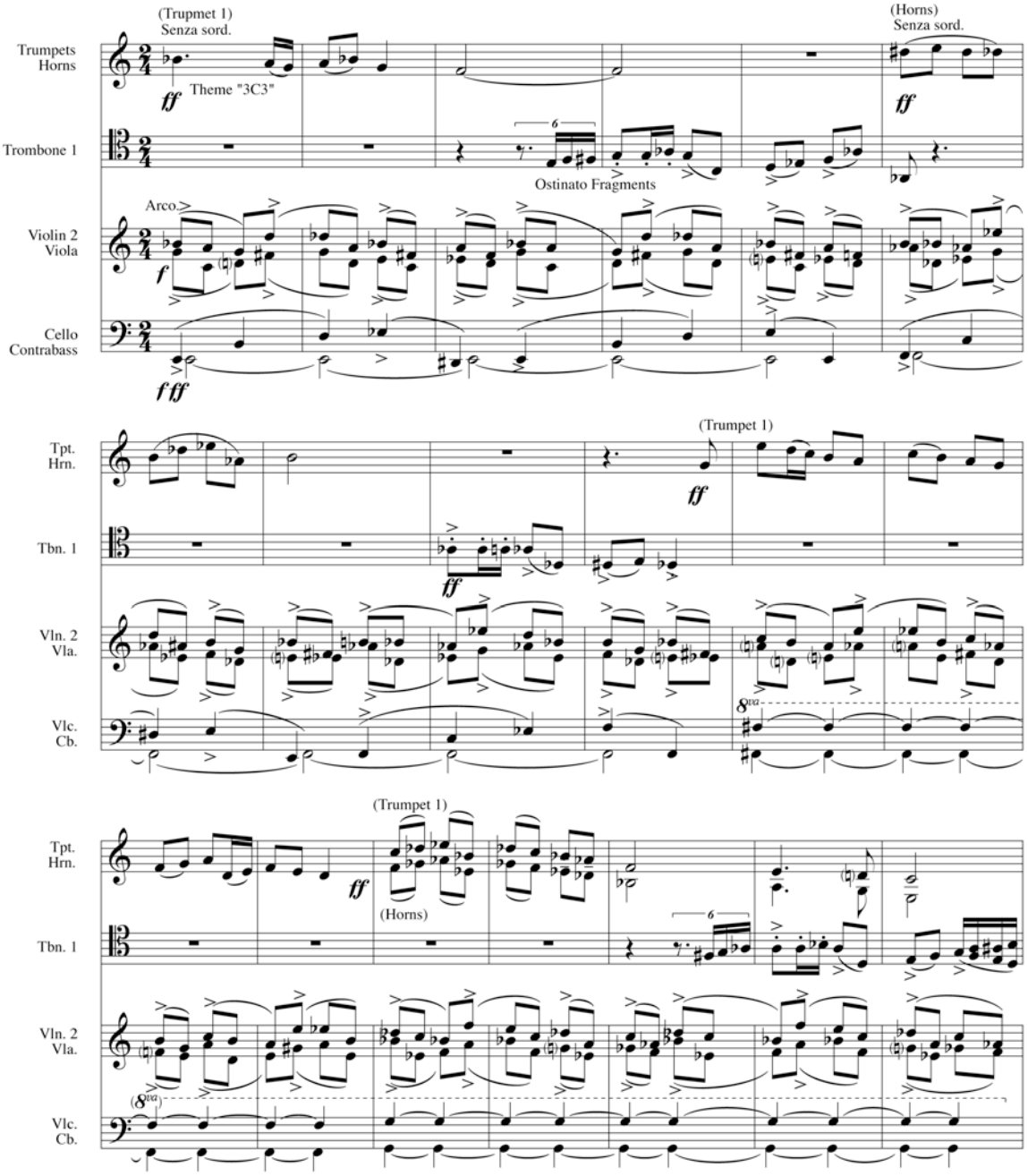
The first full theme to play in this section is "3C2" by the first oboe. Its notes are in C Dorian, but the harmony centers on an E-natural pedal. A muted first trumpet then plays Theme "3C1" in the same mode and is joined later by the flutes.

Next, the piccolo and first oboe contrapuntally play fragments of Theme "3A," separated by one beat and the interval of a minor second. The first clarinet and bassoon then do the same, though separated by the interval of a major third (see Ex. 161).



Ex. 161. One beat counterpoint of Theme "3A." Symphony No. 1, Movement III, mm. 375-384.

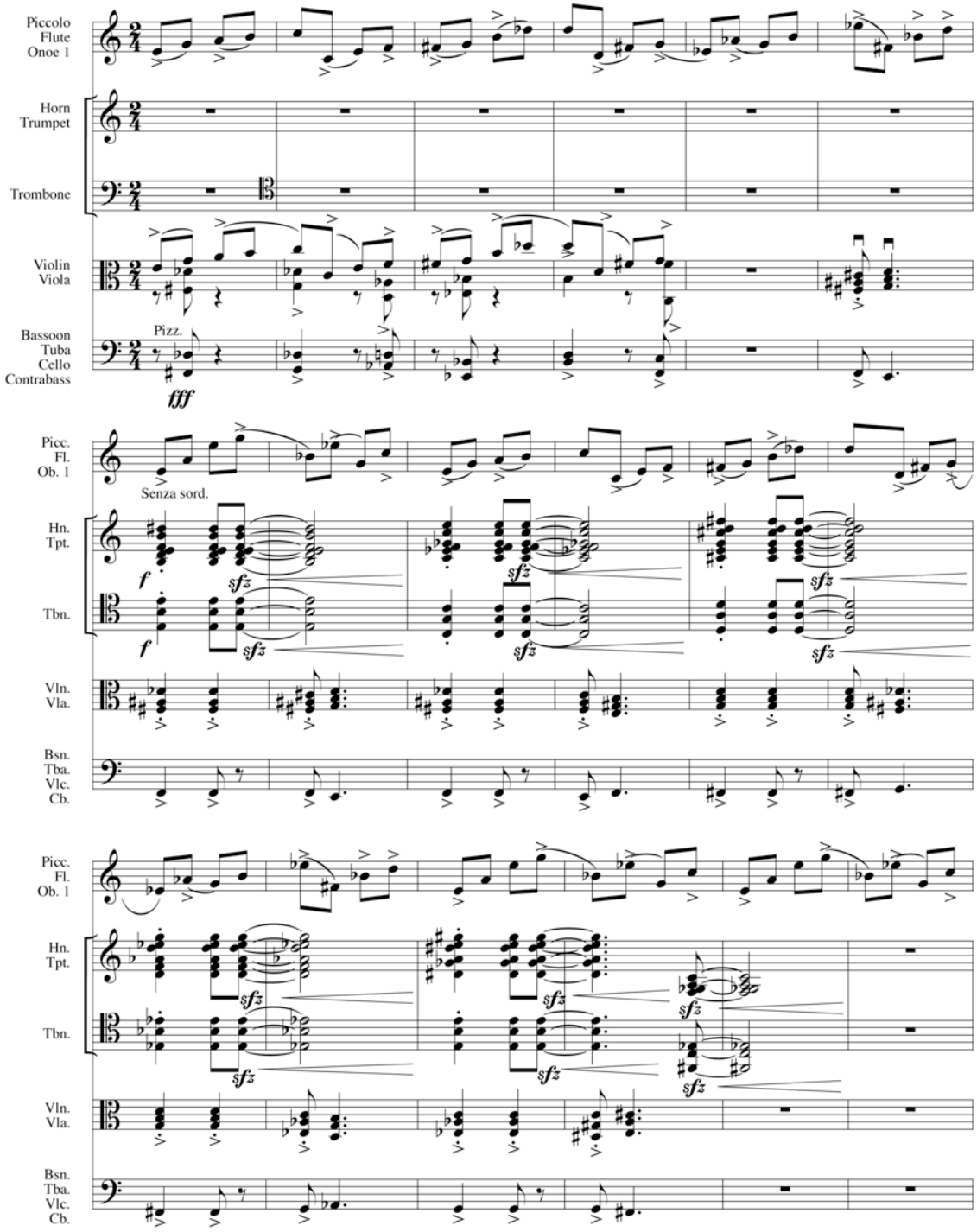
After this, the first trumpet and horns alternate playing parts of Theme "3C2" while the first trombone integrates fragments of the ostinato borrowed from the first movement (see Ex. 162).



Ex. 162. Chromatically rising Theme "3C2" and ostinato. Symphony No. 1, Movement III, mm. 385-403.

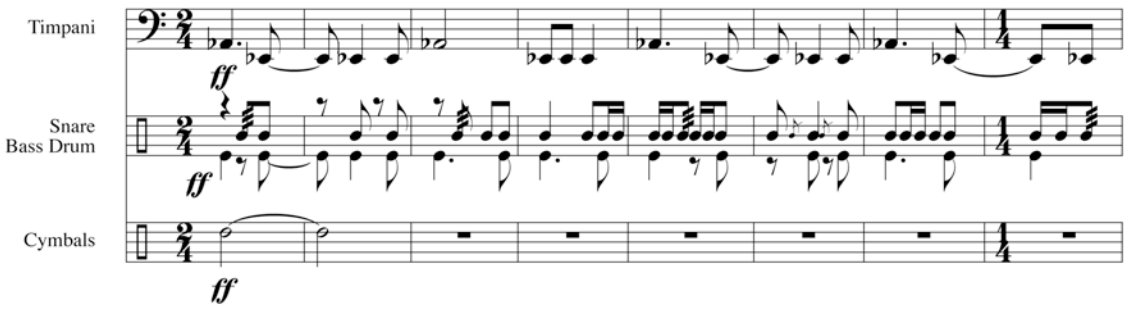
The harmony to this part chromatically climbs from a center of E to a center of G and leads to another blending of Themes "3C1," "3C2," "3C3," and "3B."

The conclusion of this section begins with Theme "3B" in the piccolo, flutes, first oboe, and first violins, with a syncopated, chromatic accompaniment by the second violins and violas. This theme repeats in retrograde ("3B-R"), as does its accompaniment, which then grows into a retrograde of the original accompaniment to "3B " (now with a reversed "Main Rhythm"). At the same time, the bassoons and brasses add chromatically rising harmony (see Ex. 163).



Ex. 163. Retrograde of both Theme "3B" and its accompaniment, and chromatically rising harmony in the bassoons and brasses. Symphony No. 1, Movement III, mm. 436-453.

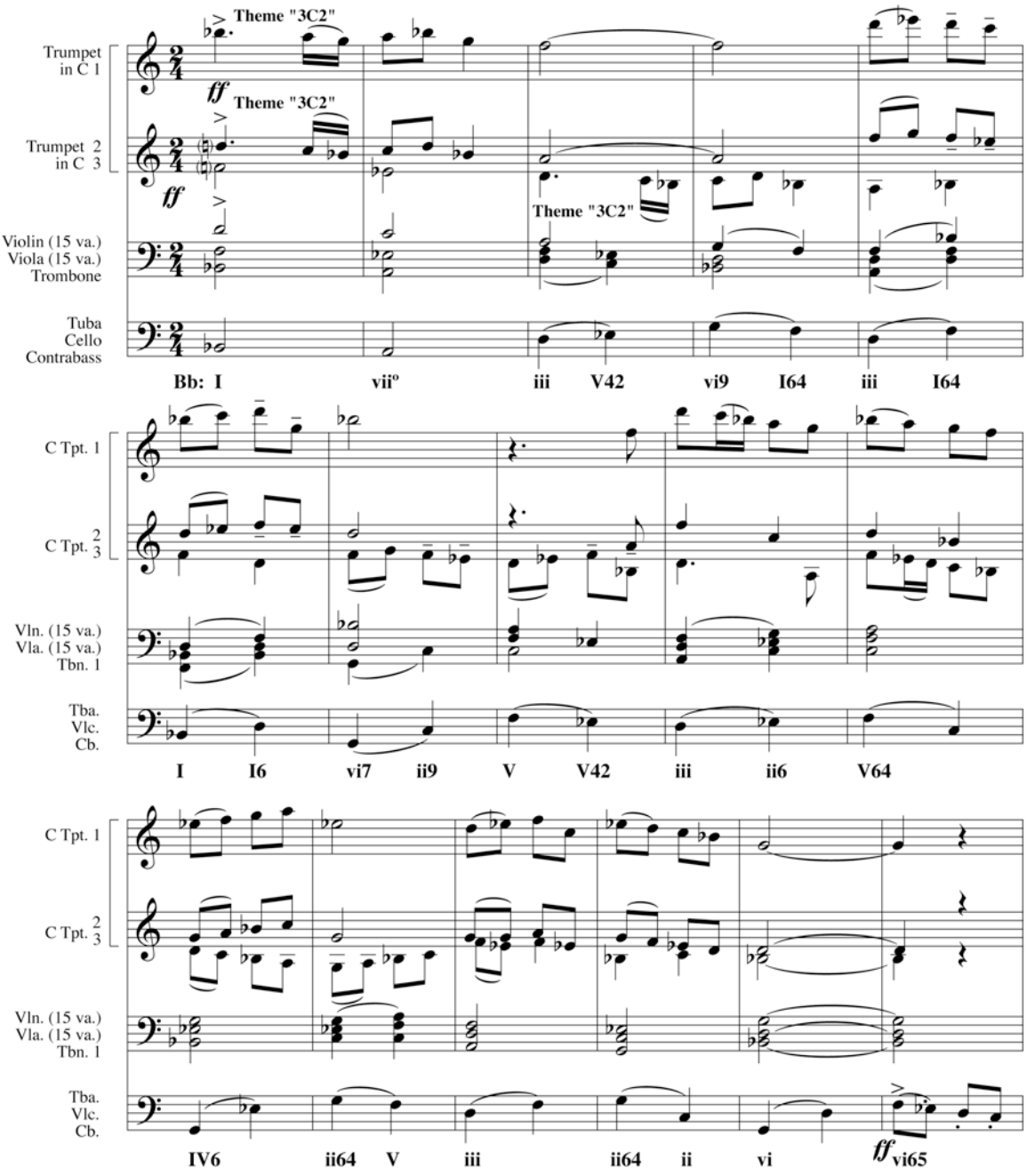
Next, the percussion section plays its only solo in the symphony (see Ex. 164), signaling the beginning of the fourth section that is a quasi-recapitulation of the first section.



Ex. 164. Percussion solo. Symphony No. 1, Movement III, mm. 454-461.

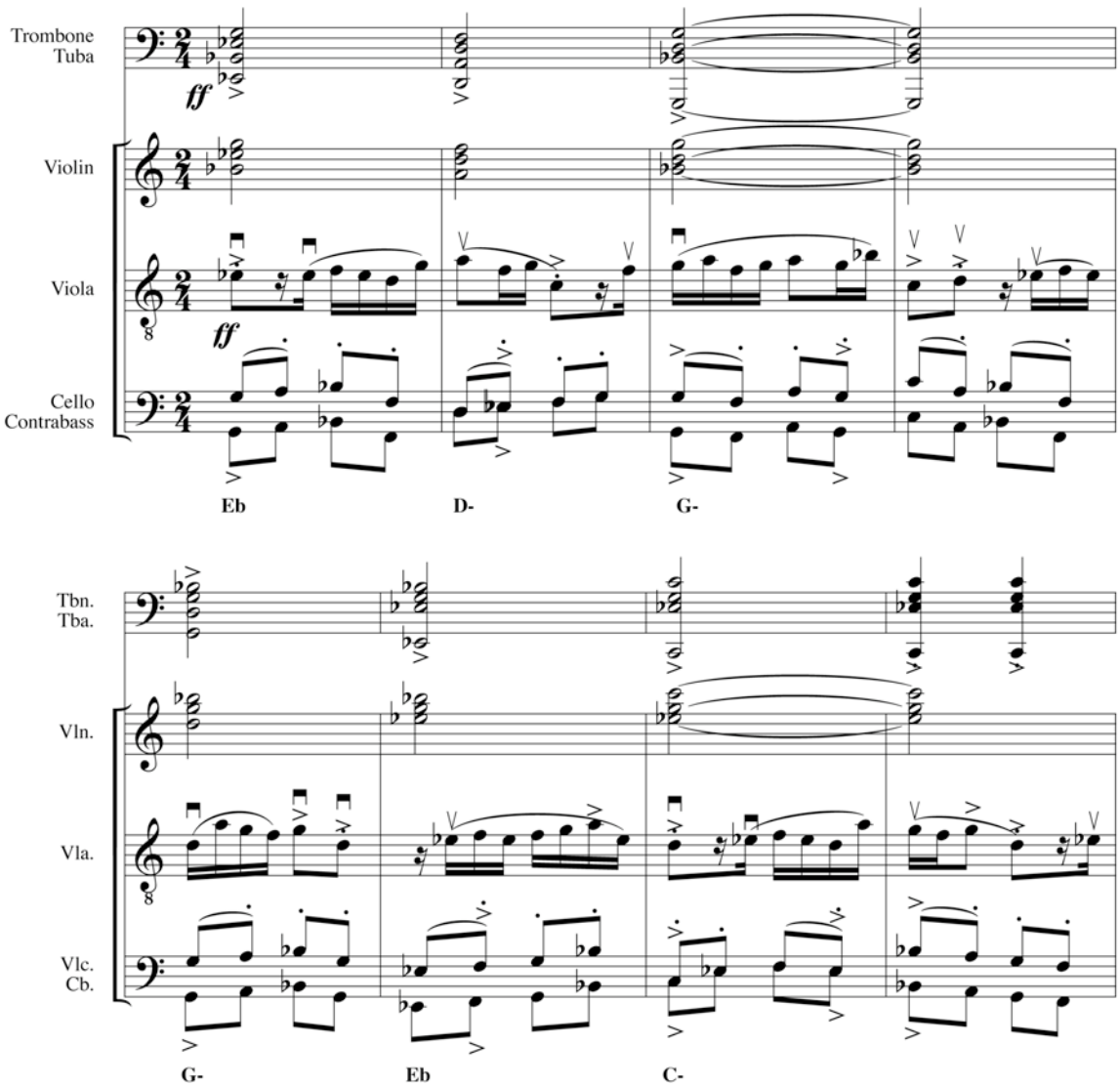
The percussion solo first leads into Theme "3B" with its original accompaniment and then into two repetitions of Theme "3A" that are a perfect fifth apart and connected with elision.

Following the percussion solo, the brasses play a contrapuntal fanfare of Theme "3C2," supported by the trombones, tuba, and strings. This fanfare contains the only non-modal, diatonic (B-flat major) harmonization in the symphony (see Ex. 165).



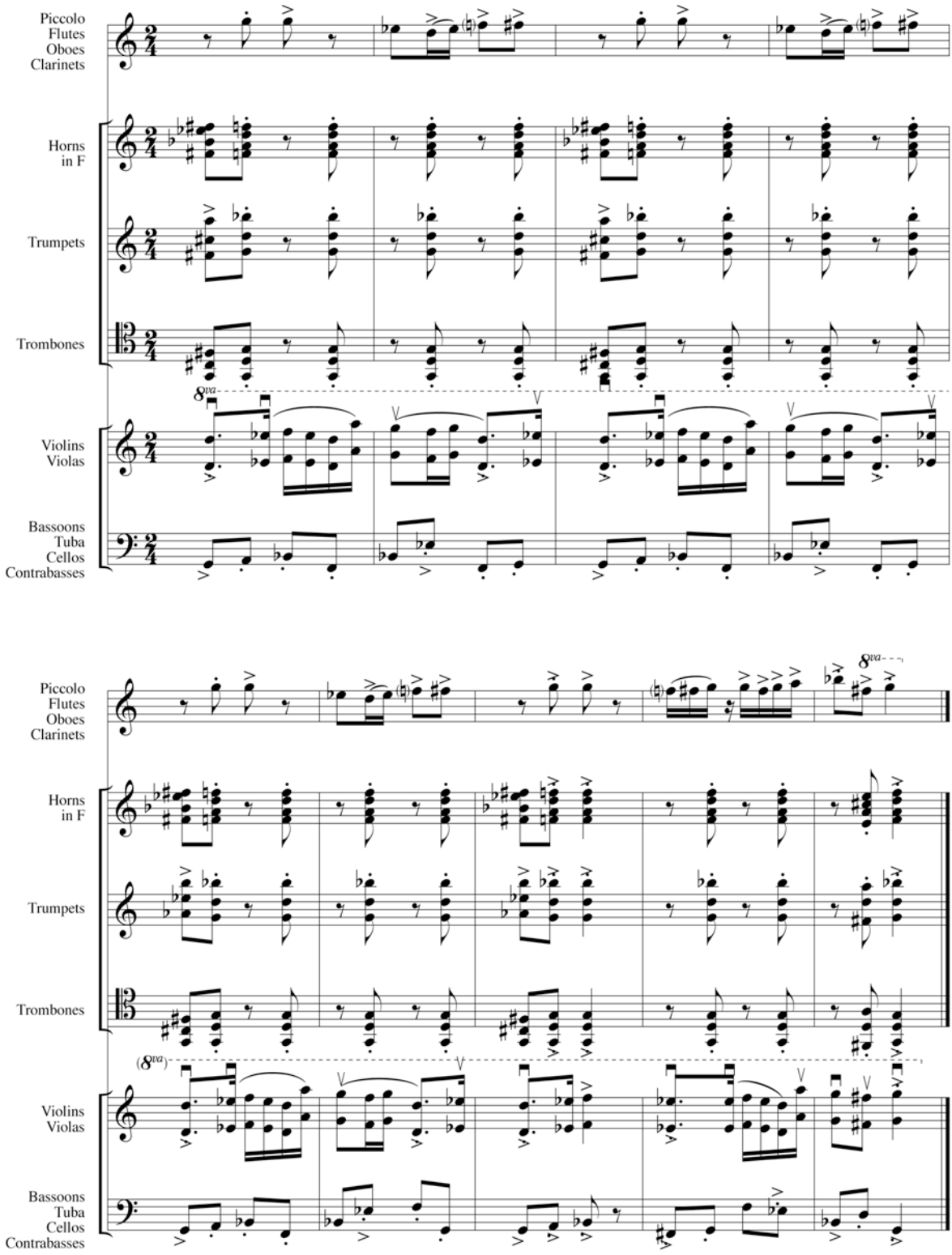
Ex. 165. Diatonic brass fanfare of Theme "3C2." Symphony No. 1, Movement III, mm. 495-510.

The fanfare leads into a final iteration of Theme "3C3" by the flutes, with a string and trombone accompaniment including a "walking" bass line in the cellos and pizzicato basses (see Ex. 166).



Ex. 166. Walking bass line and accompaniment to Theme "3C3." Symphony No. 1, Movement III, mm. 511-518.

This driving accompaniment continues as the violins and woodwinds play two repetitions of Theme "3A" that are a perfect fifth apart and again connected with elision. The movement concludes with a repeated two-measure motive of "3A," building to the final G-minor chord. The movement ends loudly and suddenly (see Ex. 167).



Ex. 167. The concluding measures of the third movement. Symphony No. 1, Movement III, mm. 535-543.

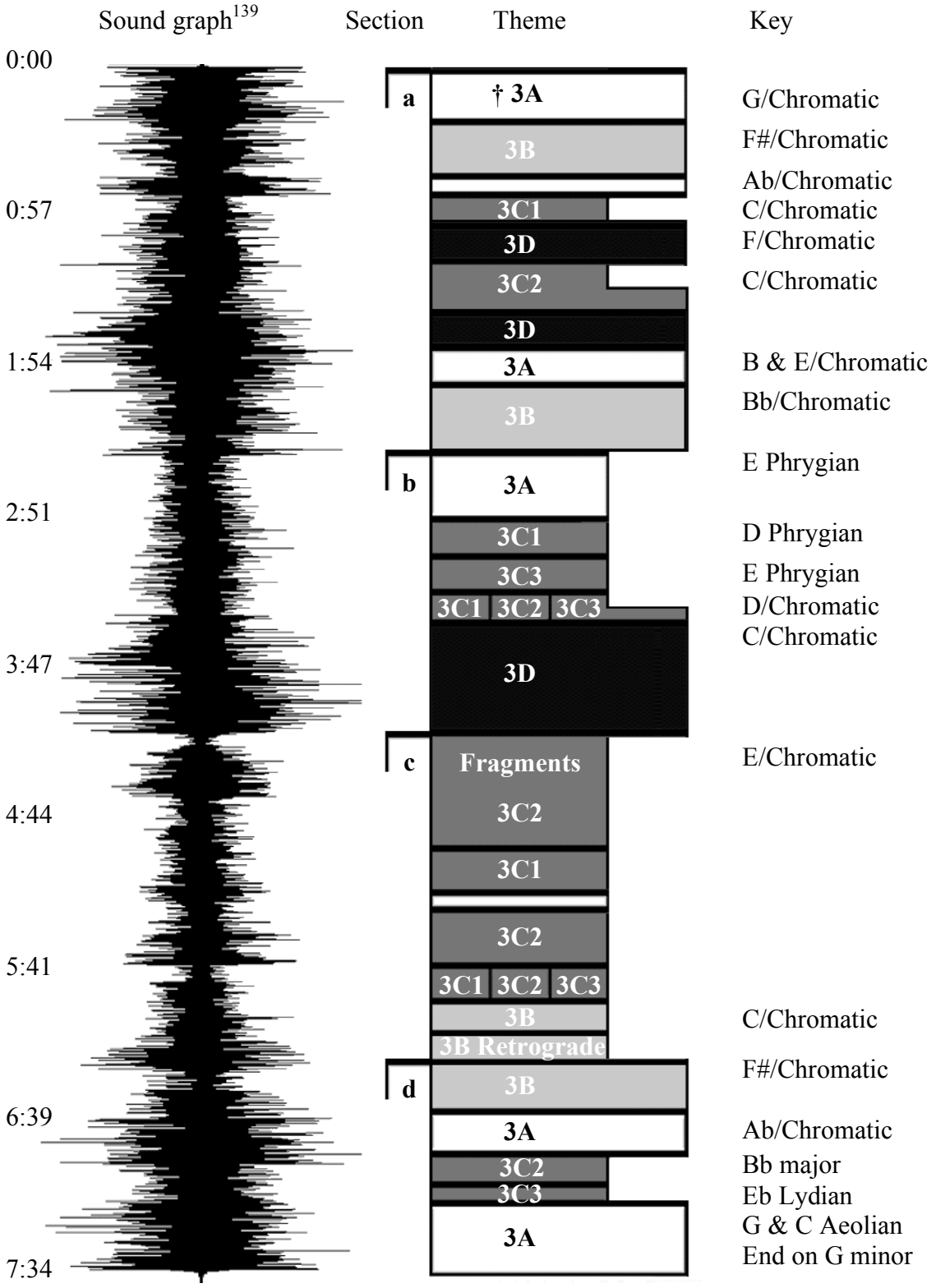


Figure 6. Sound graph, thematic use, and keys in Shaw, Symphony No. 1, movement III. † A long box denotes strong use of the "Main Rhythm" (thirteen total).

[139] A digital waveform image of a computer rendition of the score.