1999


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AN ANALYSIS AND PERFORMER'S GUIDE TO THE
SONATINE FOR FLUTE AND PIANO
BY PIERRE BOULEZ

A Written Document
Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
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in
The School of Music

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ABSTRACT

In spite of the preeminence of its composer, the *Sonatine for Flute and Piano* by Pierre Boulez is not a well known work. The piece poses truly formidable technical and aesthetic challenges for players and audiences. The purpose of this study is to present an analysis and some practical suggestions for flutists preparing the piece for performance. This serial-based work is divided into four continuous main stanzas, each demonstrating a different style and varying compositional techniques while using the same row. The repetition of specific pitch-class sets, rhythm motives, and pitch classes within each stanza lends each one aurally identifiable qualities which flutists and listeners alike can grasp to better appreciate the piece. Along with the analysis, suggestions for successful individual practice and ensemble rehearsals are given, including phrasing and interpretive suggestions, rhythmic accuracy checkpoints, and suggested metronome markings. In addition, some re-barred practice versions of portions of the flute part are included in an appendix, as well as a glossary of all expressive markings in the score.

While the practice and performance of this work may seem a monumental task, it is well worth undertaking for several reasons: because there is a scarcity of other pieces in this style for flute and piano, particularly by composers of Boulez’s stature; because performing the piece will challenge any flutist to achieve a higher level of performance; and because it is a fine piece of music, thoughtfully constructed and exciting for performers and audiences.
INTRODUCTION

Already recognized twenty years ago as "the most important composer of the French avant-garde,"¹ Pierre Boulez has also been extremely active and visible as a conductor, including a five-year term with the New York Philharmonic. He continues to conduct and record well received performances with the world's major orchestras; he is currently the principal guest conductor of the Chicago Symphony Orchestra. The *Sonatine for Flute and Piano* was written during 1946, when Boulez was only twenty years old; it is the first completed piece that he has allowed to remain in his catalogue, although he did revise it before its publication in 1954. One would anticipate a composition from a musician of Boulez's stature to be a standard one in the flute repertoire. One glance at the score, however, reveals the primary reason that this work is not played frequently: the *Sonatine* is extremely difficult for both the flutist and the pianist. Sudden changes in register and dynamics, complicated rhythms and frequent changes of meter, and often very rapid tempi combine to create formidable technical challenges. Even once a performer has mastered the sequences of notes, comprehending and appreciating the piece from a musical standpoint poses another set of problems. Despite repeated rhythmic motives and serialization of pitch classes, grasping the work aurally is difficult. A thorough understanding of the organization of the pitches, rhythms, and overall form in the *Sonatine* is essential if performers aspire to communicate its richness effectively.

HISTORICAL OVERVIEW

Born on March 26, 1925, in Montbrison, France, Boulez was the son of an engineer and received a stable, middle-class upbringing. As a child he studied piano and elementary harmony and sang in the seminary choir. From 1932 until 1941, his academic studies were at the Institut Victor-de-le-Prade, the seminary in Montbrison. Despite a strict, repressive atmosphere, he received a sound education. By all accounts, Boulez is remembered as a disciplined, brilliant student, especially in mathematics, chemistry, and physics. After passing both the first and second parts of his baccalauréat, Boulez enrolled in a higher mathematics course in Lyons in 1941; his father hoped he would pursue a career in engineering. However, his true ambition was to pursue music, so he continued his musical activities on the side, attending concerts, performing as a pianist, and even auditioning for the town conservatoire. Finally, in 1943, he went to Paris to devote his full attention to his musical studies. While there, he studied with Dandelot, who taught a preparatory harmony class. He also studied counterpoint with André Vaurabourg, Arthur Honegger’s wife. In 1944, at the age of nineteen, he enrolled in classes with Olivier Messiaen, who proved to have a profound influence upon him. This harmony class developed into a much broader discovery of music and sound in general, ranging from Gregorian chant and Renaissance polyphony to classical and twentieth-century

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3His request for admission was turned down by the panel after he played the first movement of Weber's Sonata in A major!
4Jameux, 3.
Messiaen's interest in Hindu modes and birdsong were also topics of study, but it was his approach to rhythm that perhaps influenced Boulez the most in his own compositional efforts. At the end of the academic year 1944-5, Boulez received a premier prix for harmony. Also during this time, Boulez was introduced to serialism by a performance of Schoenberg's Quintet, Op. 26 conducted by René Leibowitz. The following school year, he encountered problems with the course in fugue taught by the conservative Simone Plé-Caussade, and he subsequently left the conservatoire. Instead, he, with a group of Messiaen students, undertook detailed analysis sessions on serialism with Leibowitz. The serial apprenticeship with Leibowitz was short-lived, however, and by the time of the composition of the Sonatine, Boulez had severed their relationship.

Composed in 1946, the work initially received a primarily private performance in Brussels in 1947. According to Deliège, from a conversation with Boulez, the Sonatine was greeted "with a great many reservations, if not booing, and in consequence the work was for a long time taboo to concert organisers in Brussels." Perhaps this explains why it was not performed publicly until July 1956 by flutist Severino Gazelloni and pianist David Tudor, who premiered the piece in its revised version in Darmstadt. The revisions were relatively minor, and the original version was never published. According to Boulez, the revision:

... dealt principally with the first development, with the harmonization of the theme proper, and with the concentrated points of development. The fundamental text remains unchanged; there have been chiefly modifications of the notation. The principal modifications have been a concentration of different things and a stylistic purification.

6Jameux, 14.
Reactions to the Darmstadt performance were apparently mixed, but overall much more positive than after the first performance. "Afficionados of serialism were astounded by it."⁹ Judging from contemporary reviews, critics were more interested in judging the composition itself than the artists' performances. In a review of this performance, H.H. Stuckenschmidt comments that:

The... title might well be ironic for the Sonatina is of the utmost technical difficulty and is a broad sonata design in four parts... The flute, as a soloist, dominates the work; the piano acts as accompanist for the flute's ecstatic and feverish melodic curves of fortissimo and pianissimo in the highest and lowest registers, with flutter-tongue passages and leaps of the ninth...¹⁰

Writing after the same performance, Walter Lessing felt that the melodic formation of the Sonatine could be related to Debussy, the rhythmic ideas could be traced to the influence of Messiaen, and the use of the row-technique reminded one more of Schönberg than of Webern.¹¹

Less than a year later, an article from a June 1957 edition of The Musical Times laments the dullness of the musical situation in Paris at the time, noting that the "concerts of the Domaine Musical, promoted by Pierre Boulez, are almost the only enterprise that escapes this routine." The article continues with a brief review of a performance of the Sonatine and Boulez's music in general:

A boisterous, youngish imagination and vivacity glows in his uncompromisingly 'intellectual' compositions. At the Domaine's latest concert his Sonatina for flute and piano was first performed... a tour de force of balance. Metallic and slender, the one-voiced flute holds its own, flatterzunge and otherwise, against torrents of piano and counterpoint. For, as Dr. Johnson 'would have the little fishes talk like whales', Webern's little

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⁹Jameaux, 22.
¹¹Walter Lessing, "Vierzehn Tage auf der Marienhöhe," Melos XXIII/9 (Sept. 1956), 255.
notes, and his delicate, evanescent structures are, by his follower Boulez, turned into leviathans of polyphony . . . recent or not, overwritten or not, like it or not, Boulezian scores are marked by their uncommon qualities of challenge and conviction.\textsuperscript{12}

Despite its eventual admiration, the \textit{Sonatine} has had little apparent influence on other composers of flute literature. No other standards in the flute repertoire since its composition exhibit the same style in either the flute or piano parts. The limited number of performances of the \textit{Sonatine} has curbed its exposure over the last decades, and other composers may be understandably hesitant about writing pieces of this difficulty level for this reason. The challenges of this work should not deter interested flute players from studying, practicing, and ultimately performing it, however. The unusual patterns of notes that occur due to the serial construction of the work are technically rigorous for both the instrumentalists, and certainly demand that skills be developed beyond the usual tonal-music fingering patterns. The changing meters and complicated rhythms are also challenging in individual practice and require a great deal of attention during ensemble rehearsals because of the lack of initially audible alignment between the parts. To present a musically satisfying performance of this work, the players must develop a convincing and dramatic approach, and even discover new ways of thinking about phrasing, cadences, and style contrasts. The \textit{Sonatine} is interesting to study from a theory perspective, and certainly exciting in performance, and for these reasons, is a worthy piece for every flutist's repertoire.

\textsuperscript{12}Frederick Goldbeck, "News from Abroad," \textit{The Musical Times}, June 1957, 337.
The very title of the work, *Sonatine*, implies a certain type of form. The *New Harvard Dictionary of Music* defines a sonatina as “a work with the formal characteristics of a sonata . . . but on a smaller scale and often less technically demanding for the performer.” As Stuckenschmidt noted, the *Sonatine* is neither simple nor easy. Boulez patterned the form after Schoenberg’s Chamber Symphony, Op. 9, which shows a “continuous transformation of a single theme over four movements and the invention of a continuous form derived from symphonic movements.” Attracted by the creative prospects made possible by the use of a larger form condensed into a smaller piece, Boulez himself said that he planned “four movements of a sonata, but at the same time these four movements create four stanzas, the four developments of a single movement.” Schoenberg’s form served as inspiration only; the *Sonatine* is not a copy of the Chamber Symphony, and “stylistic influence is absolutely non-existent,” according to Boulez.

In retrospect, Boulez has commented further on the form of the *Sonatine*. In a letter to George Mellott, Boulez answered the question, “Do you consider the development to be the small episode (bars 294-341) after the return of the scherzando section (to fit in with the Schönberg *Kammsymphonie* scheme), or do you feel that the entire last section (bar 201 to the end) is a larger development and recapitulation?”

The general plan is that of the Chamber Symphony, but I have added a subsidiary development which is located between the movements and which expands itself gradually. The first sketch of it is at the end of the first allegro and the main development is placed, precisely, between the return of the

---

15 Boulez, *Conversations with Celestin Deliège*, 27.
16 Stacey, 28.
scherzando and the last allegro. I cannot give you the numbers of the measures because I . . . do not have the score with me.¹⁷

Boulez has also written in notes for a recording:

In this work — now — the points of departure are no longer visible, either in the language or in the esthetic. The structure follows Schönberg’s conception for his Chamber Symphony: the four parts making up a sonata movement are assimilated as the four movements of a sonata preceded by an introduction. There is, moreover, opposition between developments constructed on some characteristic motives and developments articulated on the meetings of series and of rhythmic cellules: there may be an opposition between “thematic” and “athematic” parts.¹⁸

Previous discussions of the form of the Sonatine have divided it into differing numbers of large sections with a variety of titles. Paul Griffiths identifies four sections in a general manner, beginning with “a slow introduction . . . followed by an ‘allegro’ . . ., a ‘slow movement’ (the cantus firmus section), a ‘scherzo’ (‘Tempo scherzando’), and a ‘finale’ where toccata-like motion races the music towards its close.”¹⁹ Mellott uses five roman numerals, and further subdivides the piece, as well.²⁰ Trenkamp proposes six large sections and even more subsections.²¹ A side-by-side comparison of Mellott’s and Trenkamp’s form charts follows in figure 1.

The major sections of the work can be separated based on a number of factors, both notational and aural. Light double bars appear in the score after measures 31, 96, 150, and 341. These prove to be major musical junctures corresponding to the most important tempo changes and confirming Boulez’s remarks suggesting a continuous four-stanza form. A simplified form chart reflecting these divisions is also included in figure 1, below. Further subdivision into smaller sections and phrases will be undertaken in the following discussion.

¹⁷Mellott, 220.
¹⁸Ibid, 218. Originally from notes on a record jacket of his Sonatine pour flûte et piano, Véga Record C 30A139.
²⁰Mellott, 219.
²¹Trenkamp, 21.
<table>
<thead>
<tr>
<th>Mellott</th>
<th>Trenkamp</th>
<th>Tiffany</th>
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<tbody>
<tr>
<td>Section</td>
<td>Measures</td>
<td>Label</td>
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<tr>
<td></td>
<td>32-96</td>
<td>First Allegro</td>
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<td></td>
<td>32-43</td>
<td>(Exposition)</td>
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<tr>
<td></td>
<td>44-79</td>
<td>1st Section</td>
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<td></td>
<td>80-96</td>
<td>2nd Section</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(First Development)</td>
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<tr>
<td>I.</td>
<td>97-140</td>
<td>Slow Movement</td>
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<tr>
<td></td>
<td>141-150</td>
<td>Transition</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(Second development)</td>
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<tr>
<td>III.</td>
<td>151-293</td>
<td>Scherzando</td>
</tr>
<tr>
<td></td>
<td>151-200</td>
<td>Scherzando</td>
</tr>
<tr>
<td></td>
<td>201-221</td>
<td>Trio (like slow movement)</td>
</tr>
<tr>
<td></td>
<td>222-293</td>
<td>Scherzando (&quot;Da Capo&quot;)</td>
</tr>
<tr>
<td>IV.</td>
<td>294-341</td>
<td>Second Allegro (episodic development)</td>
</tr>
<tr>
<td>V.</td>
<td>342-495</td>
<td>Final Allegro (recap. of themes I, II, and III)</td>
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<tr>
<td></td>
<td>342-378</td>
<td>1st section</td>
</tr>
<tr>
<td></td>
<td>379-495</td>
<td>2nd section</td>
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<tr>
<td></td>
<td>-496-510</td>
<td>Coda</td>
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Fig. 1. Three readings of the form
PROPERTIES OF THE ROW

Throughout this document, $P$ will represent the prime form of the row; $I$, the inversion of prime; $R$, the retrograde of prime; and $RI$, the retrograde of the inversion. The number following indicates the number of half-steps which that row is transposed from the original prime form of the row beginning on C, which is zero. Thus, $P_1$ is a prime form of the row that begins on $C^\#$, $R_1$ is the retrograde of $P_1$, and $RI_1$ is a retrograde of the inversion that begins on $C^\#$. A complete matrix may be found in Appendix A.

This series has several interesting characteristics which Boulez exploits throughout the Sonatine.

Pitch class ($P_0$): C B G C$^\#$ G$^\#$ E E$^\flat$ A D B$^\flat$ F F$^\#$

Fig. 2. Row used in Sonatine

First, note the intervals that occur consecutively within the row; that is, without any reordering of pitches. The term "interval class" refers to the closest distance possible between any two pitch classes, counted in half steps; interval class 1 (ic 1), therefore, indicates an interval of a minor second, a major seventh, or any compounds of these intervals. In the Sonatine row, there are three each of ic 1, ic 4, and ic 5, and there are two ic 6; ic 2 and 3 are absent. This is important as a unifying device when the series is used strictly, and becomes even more interesting when the "unnatural" intervals occur. The minor third, for example, emerges as an important motivic element, even though it is not present in the series.

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The locations of ic 1 in the row are important. They appear at the beginning and end of the row, as well as exactly in the middle. These intervals serve not only to delineate the start or finish of series throughout the piece, but are also used frequently as phrase beginnings and endings, and also in cadential gestures. These major sevenths, minor ninths, and minor seconds are aurally recognizable in both harmonic and melodic occurrences. Ic 1 dyads become so important that Boulez sometimes reorders series or extracts segments to create even more of them.

Two important unordered pitch-class (pc) sets within the row are [015] and [016]. As shown in figure 3, below, the [015] sets occur between order numbers 1, 2, 3, and 5, 6, 7, and 8, 9, 10 and 11, 12. The [016] sets occur between order numbers 3, 4, 5, and 6, 7, 8, and 7, 8, 9. The [015] and [016] sets are used motivically in the Sonatine, often separated from their original series. Note that an ic 1 is present in both; this contributes another unifying device to this serial work. The absence of the rest of the row, at times, combined with Boulez’s penchant for reordering pitches, creates some ambiguity regarding the exact labeling of rows, but this does not compromise the unity of the work because of the repetition of these pc sets.

\[
\begin{array}{cccccc}
\text{P}_0: \underline{C} & \underline{B} & \underline{G} & \underline{G'} & \underline{E} & \underline{E'} & \underline{A} & \underline{D} & \underline{B^b} & \underline{F} & \underline{F'} \\
[012378] \\
\end{array}
\]

Fig. 3. Pitch-class sets in the row

The basic pc sets mentioned above are used within larger sets, become associated with certain rhythmic motives, and sometimes exhibit particular pitch-class
allegiances. Along with a vertical use of pc sets as well, the *Sonatine* exploits these few basic pitch, interval, and rhythmic relationships in different ways, allowing each stanza to establish its individuality while contributing to the unification of the whole work.
ANALYSIS AND PERFORMANCE CONSIDERATIONS

Stanza One

The first stanza, stretching from mm. 1-96, begins with a slow introduction lasting from mm. 1-31, and then the first allegro begins in m. 32 with the first unambiguous statement of a row in the piece, similar to the main "theme" in a sonata exposition. The slow introduction, marked très librement, uses precisely notated rhythms of considerable complexity and frequently changing time signatures. Its overall effect should be rhapsodic, almost improvisational, to create an effective foil for the subsequent driving rhythms of the upcoming rapide.

A suggested phrasing for the introduction is mm. 1-6, 7-12, 13-19, and 20-31. Measures within phrases contain similar sounding figures, and different phrases have somewhat contrasting qualities. The first six measures, for example, contain a dialogue between the flute and piano consisting of three similar sound events. Each time, the piano plays a low, rhythmically staggered chord, and the flute answers with various combinations of five articulated notes separated by flutter-tongued notes. Row usage throughout this section is generally shared by the flute and piano, and often the 1 dyad that ends one row also serves as the beginning of the next. The flute's opening statement ascends, and the phrase logically closes with two descending statements, punctuated with a sforzando flutter-tongued G6. The flute gestures in mm. 2-3 share four of the five pitches in the same octave registers. This technique of repeating some pitches from one phrase to the next creates aural unity in the music, while the changing pitches provide movement and direction. For example, the flutter-tongued F6 in m. 2 clearly moves to the flutter-tongued G6 at the end of this first phrase, and the next phrase concludes with a flutter-tongued A6.

This second phrase begins with a different texture; in mm. 7-9, the flute and piano first use different portions of the same row simultaneously, performing all
twelve notes of \( R_6 \). In the third phrase, mm. 13-19, the ascending \( E^b-A-D-B^b \) refers back to the same pitches in the same octaves in the flute in m. 2, as does the \( F^6 \) at the opening of the following phrase. The chord in m. 17 is similar to many throughout the piece, a stack of major sevenths and minor ninths, often interlocking.

The concluding phrase of the introduction, mm. 20-31, begins with the flute alone, using harmonics and more flutter-tonguing for added drama. The last twelve notes played by the flute in the introduction are a complete aggregate expressed as six ic 1 dyads. These create an angular line, highlighted by an \( F^6 \) grace note leading to a fortissimo flutter-tongued \( F^6 \). The end of this section refers back to previous events in the introduction, but also looks forward to later music. The long \( E^b \) in the flute in m. 25-27 refers back to the \( E^b \) in mm. 14-18, and the piano also restores the harmony from the end of m. 17. Once the flute is tacet, the piano closes with a partial statement of \( P_6 \), returning the chord from m. 1 in m. 29, but without the B, and adding an ominous C-E\( ^b \) motive in the deep bass. This C-E\( ^b \) motive reappears throughout the piece, and has been prepared by the lowest notes of the chords in mm. 1 and 4, C and E\( ^b \), as well as by the low C reiterated beneath the E\( ^b \) in mm. 26-27.

The repetition of specific pitch-class dyads throughout the introduction, especially certain ic 1s, increases the sense of aural unity. The dyad \( F-F^* \) occurs melodically at the end of groupings in the flute part in mm. 2 and 5, again in m. 24, as well as vertically including the piano in mm. 9, 12-13, and as a part of sonorities in mm. 16, 28, and 29. Also, the pitch classes C-B form another important ic 1 dyad. They are present as the first and lowest pitches heard in m. 1, and as members of the chord in m. 4. These pitch classes occur melodically in the flute at the beginning of rhythmic figures in mm. 7, 10, 23, and also vertically again in mm.
14-17. The pitch class E♭ is an important one and is often paired with an E natural. Most obviously, the flute's first two notes of the introduction in m. 2 are E-E♭ and its last two in m. 25 are E-E♭. E♭ and E are the lowest and highest notes, respectively, of the piano chord in m. 4, and the piano chord in m. 6 reverses this, with an E♭ on top and an E natural on the bottom. The two longest pitches held by the flute in the introduction are E♭'s, in mm. 14-18 and mm. 26-29. The repetition of these dyads, combined with certain textures and rhythmic motives, lends them more importance and creates connection among and between phrases, even though the nature of a serially constructed piece obviously requires the use of all twelve chromatic pitches. For a performer, recognizing repeated ideas, or specifically, important pitches used within and between phrases helps project a connected phrasing and musical presentation. Paying special attention to the dynamics, articulations, and dramatic style of this introduction sets the stage for the excitement to follow.

In contrast to the dream-like, moody character of the opening, the rapide uses a violently marcato style, with driving rhythms in both instruments. The note values are long enough in the flute to suggest a melody, accompanied by a piano part which uses similar rhythms creating a contrapuntal effect between the right and left hands, as well as with the flute. In the first phrase, mm. 32-40, the flute uses I 5 to present the first clearly ordered row statement of the Sonatine. The four rhythm motives used and their intervallic contents are listed in figure 4, below. The abbreviation "Rh." is used to designate rhythm motives first presented in the Stanza One and their typical pitch-class sets.²³

²³A graphic representation of the rhythm motives in the flute and piano in mm. 33-96 is included in Trenkamp, p. 51-53. Mellott also separates these and other figures as motives, although neither author discusses pitch-class sets.
The remaining music in the *rapide* manipulates these motives further. The piano part, marked to carefully reinforce the notes in common with the flute part, uses derivations of these motives to harmonize the flute in the first phrase. The second phrase begins in m. 41 as a transposition of the first in the flute part, but both the piano and flute parts become less clearly structured. The double grace-note motive, first played by the piano in m. 44, by the flute in m. 45, and both instruments together in m. 47, becomes increasingly important later in the work. They are especially prominent in the piano solo in the opening of the fourth stanza, beginning in m. 342. Furthermore, the partial triplet figures played simultaneously by the flute and piano in m. 46 and m. 50 will appear in the fourth stanza as important cadential figures. After a piano solo highlighted by flute exclamations, the last quarter of this section from mm. 80-96 involves a dialogue between the two instruments. Each plays alone, one answering the other with similar musical material.

This *rapide* section of the first stanza uses some similar techniques to the introduction to create continuity, both within itself and with the sections before and following. For example, the F-F♯ dyad remains prominent. These are the first two and last two notes of the flute part in this section, and are in the piano’s bass in mm. 66 and 74, and are the piano’s last two pitches before the glissando that closes the
first stanza in m. 96. Notice also that several melodic fragments in the flute and piano begin on F or F#, or feature them prominently as longer notes rhythmically.\(^{24}\)

The manipulation of these rhythm motives reveals techniques which Boulez developed from his studies from Messiaen. While only one section of the third stanza will use strict serialization of rhythmic motives to organize all three lines of music, individual rhythmic ideas are varied in several ways in this section and throughout the Sonatine. One technique is the exchanging of rational values for irrational values, or vice versa. A rational rhythm is one that evenly subdivides within the meter it is used, such as four sixteenth notes in 2/4 meter, or three eighth notes in 6/8 meter. An irrational rhythm is an odd grouping of notes for that meter, such as a grouping of five sixteenth notes to be played within the space of four sixteenth notes in 2/4 meter, or four eighth notes in the space of three in 6/8 meter. An example of this is the changing of Rh. 3 in the flute part in m. 37 to its simultaneous variation in the piano part. Another technique is augmentation or diminution of a motive, either in its entirety or in part. An example of this may be seen in the new version of Rh. 1 in the right hand of the piano in mm. 56-57. Rhythms are considered to be “non-retrogradable (symmetrical about their centre), (or) sometimes retrogradable (non-symmetrical about their centre),”\(^{25}\) so note durations in motives are commonly reversed, as in the Rh. 1 in the flute in mm. 51-52. Finally, one or more note values may be replaced by a rest.\(^{26}\) An example of a rhythm that demonstrates this technique is the left hand of the piano in m. 41, as it may be a retrograded, diminished version of Rh. 1 with the eighth rest substituting as the last note of the pattern. Of course, this rhythm is also similar to a retrograded, 

\(^{24}\) For example, consider the flute part, mm. 75, 82, and 84, and the piano part, mm. 62-64, 72-73.

augmented Rh. 2; this ambiguity may ultimately contribute to the aural unity of the music.

Performers will probably find that this section is not quite as rhythmically difficult as some of the later parts. Feeling an eighth note pulse in beginning practice, both individually and in ensemble, is essential to keep the parts aligned. Consider a performance tempo of $J = 150$. Checking for ensemble at key points also increases accuracy in performance. Some suggested spots to aim for are the beginning of mm. 41, the simultaneous rhythms in mm. 46 and 47, and of course the triplet figure, with its doubled pitches, in m. 50. The flute entrance in m. 51 also doubles the piano, so the flutist must wait to play after the pianist’s first right hand chord. A concentrated combination of counting, listening, and watching the score will allow the flutist to place the entrances in the following section accurately. Try listening for the F-F♯ in the piano’s deep bass in m. 66, and placing the grace notes in m. 67 on the downbeat allows the rhythm to flow better. Placing the grace notes in m. 71 on the second eighth note assists in fitting them in before the next measure. Listen for the piano’s single F3 in m. 72 to hear where to place the next entrance. Note that the flute’s D6 on the downbeat of m. 79 should be simultaneous with the piano’s. The performers should match styles in their overlapping entrances in measures 80-96, but the rhythm and notes should not be too problematic. End with a dramatic slowing of tempo and strong dynamic level, and the audience will be drawn into the second stanza by the sudden change of style, dynamics, texture, and overall tempo.

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Ibid, 23.
Stanza Two

The second stanza, or "slow movement," mm. 97-150, opens with several distinguishing features. The tempo slows abruptly, the dynamic level reduces to piano, and a series of trills and rippling thirty-second grouplets creates a languid atmosphere. Although strictly notated rhythmically, the shifting meters and odd rhythms create a free sound. Still, some rhythmic motives from the opening allegro return in this new texture, as does the emphasis on certain pitch classes. After a basic three-part form, (A: mm. 97-115; B: mm. 116-134; A': mm. 135-140), the last ten measures of this stanza are a transition to the upcoming scherzando section; the tempo gradually accelerates and the rhythm motives foreshadow Stanza Three.

In the second stanza, the original row is usually fragmented and even reordered. An exception is the trilled notes which extend from mm. 97-138; they create a complete statement of \( L_t \). The thirty-second note grouplets that grow out of the trills of the piano are somewhat varied each time, but essentially divide smaller phrases and are eventually imitated in the flute part in m. 134. Many of the rhythms are recognizable as variations of the motives established in the first stanza. For example, at the beginning of the second section, in m. 116, where the flute takes over the trill, the right hand of the piano presents the first five notes of \( P_r \) using Rh. 1 and Rh. 2. This is shown in figure 5, below. Other ordered pentachords using similar rhythms occur at nearly every trill change; for example, in mm. 119-121 (last five notes of \( R_o \): flute), mm. 122-124 (first five notes of \( P_r \): left hand, piano), and in mm. 131-133 (again, the first five notes of \( P_r \): right hand, piano).
Specific pitch class repetitions and returning melodic figures assist with the coherence of the second stanza. The pitch class dyad F-F♯ retains its importance in the second stanza. These notes are emphasized in the piano in mm. 104-105, m. 111, m. 115, and begin a phrase in mm. 116 and 131. The G trill also helps connect this section; when it seems to have ceased in the piano, as in mm. 108-109 and mm. 112-113, a tremolo between G-A♮ and A-B♭ continues the sound, although a bit altered by the added notes. Furthermore, the sonority in m. 99 is repeated in m. 106. The notable change in the second section of the second stanza is that the flute plays four of the trills, building to a *forte* and ending in m. 134 with the flute playing its first thirty-second note sweep. The third section (mm. 135-140) begins with a slightly varied repeat of the first section: the flute’s descending gesture C♯-A-C-B♭ is now followed rather than preceded by the dyad B-E♭. The closing *fortissimo* C♯ trill completes the I, statement stretching throughout the second stanza. After that cadential trill, the next two measures wind down a bit using a reference to the end of the first theme. Here we find the same pitches, in the same octaves, in a similar rhythm, as in mm. 37-40. The piano, meanwhile, brings back the ominous C-E♭
motive in the deep bass, which will be picked up by the piano again in m. 149 to close the second stanza.

As the indication *peu a peu scherzando* suggests, mm. 141-150 are a transition to the next stanza, combining musical ideas from previous and upcoming stanzas. Energetic rhythmic figures and sudden dynamic and register changes foreshadow the coming music, whereas the trills, thirty-second note grouplets, and descending flute pattern in mm. 148-149 are derived from the second stanza. Of particular importance is the scherzo motive in the left hand of the piano in m. 149 that includes the Eb-C minor third in the deep bass register.

Performance suggestions for the second stanza include changing the tempo, softening the musical style, and noting some important aural cues and errata. For a convincing performance, a considerably slower eighth-note pulse should be felt throughout this section, perhaps $\frac{3}{4} = 92$. Try to play each phrase between the thirty-second note ripples in a linear, melodic manner, and use the carefully marked dynamics to shape and define the melody. To contrast with the many articulated sections of the piece, both players should strive for as smooth a sound as possible. Trills should be fast and rippling, and the flute’s slurs should move effortlessly from one note to the next. Grouping the thirty-second notes makes them easier to perform cleanly; for example, in the flute part, m. 134, use two groups of four notes, and in m. 141, use two groups of three. Balance between the flute and piano is generally not a problem throughout this section. Places where a cue from the flutist to the pianist may prove helpful include the entrances in mm. 105, 106, 110, 131, and the Eb in m. 137. Listen and watch for situations such as these where the parts should line up, as well as places where entrances answer each other, or are staggered, such as mm. 111-112 and mm. 122-124. Careful observation of how the parts fit together is essential, and this section is slow enough to listen, note by note. If a gradual
accelerando is performed as indicated during the *peu a peu scherzando* section, especially from mm. 148-150, a seamless transition can be made from Stanza II to Stanza III. Errata in the flute part in this section include: m. 105—the D6 should be dotted, to add one sixteenth note in value; m. 130—add one eighth rest; m. 131—begin on a B♭-C♭ trill; and m. 134—a slur over the thirty-second notes in the flute seems more appropriate and consistent than articulated notes.

**Stanza Three**

The burst of activity which opens the third stanza, mm. 151-341, clearly marks it as a new section. A few basic rhythmic motives are combined repeatedly to create this contrapuntal music. Instead of complete rows, portions of rows are used, creating repeated interval-class successions; certain pitch classes also remain more prominent than others. The minor third becomes an important interval; this interval does not naturally occur in the series, but has occurred previously in the C-E♭ bass motive, and it is immediately apparent in the first two flute pitches of this section, G-B♭.

The form of Stanza Three is comparable to a traditional scherzo-trio-scherzo da capo form, although with some modifications. The contrapuntal scherzo texture with its constant, three-part activity occurs twice for extended periods, the first in mm. 151-194, followed by a developmental section that opens with four scherzo motives. A slower tempo, trio-like contrasting section follows, recalling some important motives of the first two stanzas and maintaining the continuous nature of the piece. The second scherzo section, mm. 222-293, although not a literal repeat of the first, uses similar motives and musical style, creating a da capo-like return. The second development, mm. 296-339, is marked by a more legato style, extreme register leaps, and three-part rhythm canon. The form of the third stanza is outlined in figure 6, below.

21
Scherzo mm. 151-194
Development I mm. 195-221

Scherzo recall (mm. 195-200)
Trio (mm. 201-221)
Stanza II recall (mm. 201-211)
Stanza I Intro. recall (mm. 212-216)
Stanza I Expo. recall (mm. 217-221)

Scherzo da capo mm. 222-293
Transition mm. 294-295
Development II mm. 296-339
Transition mm. 340-341

Fig. 6. Third stanza form

Even though the rhythms might initially appear very complex in the first Scherzo, nearly all are created from the rhythmic cells shown in figure 7, below.

The abbreviation “Sc.” is used to refer to rhythm motives and their usual pc sets used in the third stanza, or scherzo section, of the Sonatine.

![Diagram of rhythm motives]

A two-note cell and another two- or three-note cell are frequently combined into longer rhythmic motives, the most important of which is the motive shown in figure...
8. Sc. 5, with its repeated pitches, is certainly reminiscent of the cadential Rh. 4 from the exposition. (Refer to Fig. 4, p. 15.) In Sc. 1, the interval between the two notes varies, but many are minor or major thirds. The second pattern, Sc. 2, is composed of an eighth note and sixteenth note, often with a grace note attached. Virtually every occurrence of this cell that includes a grace note uses pc set [016]; the order of intervals and contour of the figure varies considerably. When Sc. 1 (as an [03]) and Sc. 2 are combined, the complete “Scherzo motive” or Sc. 3, is formed. The first appearance of the scherzo motive on C-E\textsuperscript{b} occurs in the piano in m. 153 (except for the one in m. 149 where the C-E\textsuperscript{b} is reversed).

![Fig. 8. Scherzo motive](image)

The pc set that results here, and in most scherzo motives, is [01237]. In most instances when an Sc. 3 is grouped with an Sc. 5, the hexachordal pc set that results is [012378], as in the right hand of the piano in m. 151, and the flute, mm. 153-154. This set may be derived from the unordered hexachord in the middle of the original row, as shown in figure 9. The combination of Sc. 3 and Sc. 5 creates a scherzo motive with a cadential extension, another instance of repeated sixteenth notes acting in a cadential manner as Rh. 4 did in the first stanza.
Another rhythmic cell scattered throughout this stanza combines a pair of repeated pitches with a grace note preceding one or both of them, often at the interval of a tritone. The repeated pitches are usually a dotted-eighth value followed by an eighth note, although later in the movement the pattern is retrograded or slightly different values are substituted. Sc. 4 first appears in the piano part in m. 155, and later in the flute part in mm. 158, 170, and others. These cells aurally offer brief resting places in the flurry of rapidly changing notes throughout this section.

The music of the first scherzo section is created by the rhythmic cells previously identified. Departures from these patterns often signal cadences. For example, in m. 162, the piano plays a thirty-second note sweep followed by two *fortissimo* chords. This same run was played by the piano in the second stanza, m. 129, but the repeated chords in the extreme high register are new here, and provide the first foreshadowing of the final cadence of the *Sonatine*. After another flurry of thirty-second notes in the flute and piano, the second phrase begins in m. 164. A similar cadence occurs in mm. 178-179, following a trill in the flute.

The final part of the first scherzo includes several interesting features. First, mm. 183-184 may be considered the climax of this first scherzo. This measure is obviously different from the previous scherzo music because of the low A trill in the piano beneath nine chords of two notes each, and it is set off by the *caesura* on the preceding bar line. While a few pitches are repeated in this pattern, the only note missing from these chords is an A, and of course that pitch is supplied by the trill. In
m. 184, both the flute and piano reach their loudest notated dynamic of the work so far, a *fff*. A brief relaxation of the tension follows in mm. 185-190 using hints of the upcoming scherzo development, with its irrational note values. The expressive marking *sans nuances* indicates that this section should stay strictly in time. Marked *mezzo forte*, the end of the phrase *crescendos* quickly in m. 191, combining the piano’s sweep of thirty-second notes and the flute’s repeated pitches in an effective cadential gesture. At the transitional *élargir*, where the piano returns to its low A trill, the flute part demonstrates an interesting symmetry, with F’s appearing at the beginning and the end of the phrase. As shown in figure 10, below, the piano part in m. 194 is important, for this pattern of sixteenth- and eighth-note chords followed by a high-register minor ninth is repeated three more times in this section, recalling the second stanza.

![Musical notation image](image_url)

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Fig. 10. Cadential gesture, m. 194.

Used as a phrase ending again in mm. 204, 211, and 214, each time the final chord moves up a half step, finally reaching the minor ninth which forms the E-F chord at the beginning of m. 217. This chord begins an entire sequence of minor ninths,
created by the simultaneous use of \( I_5 \) and \( I_4 \). These climactic four measures will return to close the entire work in the coda in mm. 503-506.

Many of the potential performance challenges of the scherzo sections are rhythmic ones. Practice of this scherzo section as well as the second one from mm. 222-293 requires meticulous counting by both performers as well as attention to the rapid note, register, and dynamic changes. Extremely slow practice with a sixteenth-note pulse will lead to confidence and accuracy. This is especially helpful in early ensemble rehearsals, because it allows the players to hear how the music sounds when it fits together correctly, and then use that knowledge with gradually increased tempos. Try working the tempo up to \( \boxed{160-172} \). For the groups of rests between entrances, I found it helpful to use my own \( \boxed{\uparrow} \) and \( \triangle \) symbols to think them in twos and threes, even though this meant sometimes ignoring the printed groupings in the score. For a single sixteenth rest, I mentally inserted a single beat of rest, continuing the tempo from the previous notes. For example, here is how I marked my part in mm. 151-153:

\[
\begin{align*}
\text{Fig. 11. Rehearsal markings, mm. 151-152}
\end{align*}
\]

Aural cues are important for both performers, and awareness of places where the parts should be aligned assists with accuracy in ensemble. The flutist's first entrance in m. 151 may be cued by the right hand of the piano; listen for the \( \boxed{\uparrow} \)
to hear your cue. It also helps to know that the sweep in m. 150 is pedaled and will sound somewhat blurred, but the pedal is released at the downbeat of the scherzando for the staccato articulations. To double-check this entrance, listen for the D4 in m. 152 to align with the pianist’s left hand. Note the imitation in m. 163: the flute’s, then the piano’s thirty-second notes begin between the repeated figures. The flutist should feel a slight accent on the second note (B4) of the thirty-second notes to place them correctly. As before, grouping thirty-second notes will assist technique; for example, m. 171, try 2+2+2 or 4+2, and in m. 172, try 2+2+2 or 2+4. In individual practice, using a variety of groupings and odd rhythms will help the fingers learn the patterns even better. Some other checkpoints for accuracy in rehearsal include: in m. 171, the piano should have finished before the flute begins the thirty-second notes; and in m. 177, the flute’s trill should line up with the piano’s sweep. Also, notice in m. 179 that the flute’s triplet occurs immediately following the repeated chords in the piano, and of course the caesura before m. 183 supplies another reference point.

To assist with accurate preparation and tempo improvement, a version of the flute part of this section in 2/4 meter is included in Appendix C. This may be especially useful in beginning preparation of the work, because simply reading the part and keeping track of the note and rest lengths can be difficult. Practicing in a familiar meter like 2/4 allows one to work with a metronome and verify that the notes and rests are falling in the correct places in time, while also giving the fingers and ears an opportunity to learn the note patterns. The dynamic changes and articulation markings may also be included in this practice, so that the piece is learned correctly from the start. In this and the following rewritten excerpts, note that accidentals do not carry over the octave. As the music becomes more familiar, you should feel the dance-style and larger groupings of twos and threes that accompany the varying articulations and rhythms, and avoid any emphasis of the groups of four sixteenth
notes which might result from practicing in duple meter. In order to become accustomed to performing from the original score, alternate practicing between it and the 2/4 rendition to prevent dependence on the practice version. Performing from a score is essential in a piece of this complexity, so it is important to be familiar with the look of the barring in the original. Despite the technical difficulty level, strive for an overall lightness of style characteristic of scherzo movements. If the pianist plays as lightly as possible, balance between the two instruments should not be problematic in this and the following scherzo sections.

The first development (mm. 195-221) uses motives from the preceding three stanzas to contrast against the first scherzo section and its da capo. After a subito tempo scherzando at mm. 195-200 which includes two complete scherzo motives on C and one on G, a type of trio continues with slower tempos and motives from the first and second stanzas. Très modéré, presque lent is the indication over m. 201, the same marking that began the second stanza. The flute even begins the phrase with a figure similar to the one in mm. 99-100. The rhythmically augmented versions of the scherzo motive in mm. 205-206 and 209-210 project the usual pc set [01237], keeping this section connected to the surrounding scherzos. These measures rhythmically mirror each other around an imaginary line drawn through the eighth rest in m. 208, and the music is simply transposed up one half step during this retrograde, except for the last B of the piano. At m. 212, Mt. de l'introduction (in the tempo of the introduction), the flute plays similar music to m. 2 using RI₁, only in retrograded rhythm and lacking the pitch classes C, C⁹, and D. The use of flutter-tonguing is also returned, as is the pairing of F-F⁹ in m. 213. In mm. 215-216, a long A is played alone by the piano, connecting back to the frequent low A trills at the end of the scherzo.
Measures 217-221 serve as a climactic ending for this section, featuring a brief return to a somewhat regular series treatment by recalling the exposition, and also generating momentum toward the return of the energetic scherzo. The C* missing from the previous row in the flute is prominently restored in its next entrance, where it is flutter-tongued at *fortissimo*. It is followed by an adamant Rh. 4, the cadential figure first heard in the exposition, m. 40. The previously mentioned minor ninth (augmented octave or ic 1) chords continue until the B♭-B dyad occurs simultaneously with the flute’s repeated-note cadence on C*. Interestingly, the one break in the piano’s sequence occurs on the downbeat of m. 220, where a C-C* chord presumably supports the C* of the flute. (Also, the E in m. 219 should be a D to maintain the pattern.) Be sure to observe the rest at the end of m. 216; allow a moment of silence before the dramatic fff climax. A slow enough tempo should be used so that a definite contrast to the preceding and following scherzando sections is provided. Clearly, the style is also much more heavy and marcato. The low G-B♭ that continues through mm. 217-218 connects to the first scherzo motive of the next section, which occurs in the piano in m. 221. It also begins on G-B♭, possibly the second most important pitch classes used as the basis for scherzo motives.

The second scherzo passage stretches from mm. 222-293, a total of seventy-two measures, whereas the first scherzo only lasted for forty-four measures. Besides using the same five basic scherzo motives, this da capo-like section also begins with a similar first scherzo motive in the flute. The flute entrance in m. 222 is on a repeated F, which descends to B, and continues from there to complete a retrograded [012378] scherzo motive with cadential extension. The similar figure in mm. 153-154 also began on an F, but ascended to B; thus, the second version is an inversion of the first one, conveniently beginning with a tritone of the same pitch classes. Unlike the first *scherzando* section, this one and the second development
following twice use long flutter-tongued notes in the flute to mark cadences. These
descend from a C in mm. 252-256 to a C in mm. 292-293, and then in the second
development begin again on a C in mm. 314 and ascend to a D in m. 327. The pairs
of repeated chords in the piano in mm. 257-258 following the long flutter-tongued C
are similar to the cadential figures used in m. 163 and mm. 177-179. This C
connects back to the last lengthy flutter-tongued note in mm. 217-220, also a C.

Other motives are repeated throughout this section. Notice the flute’s three
grace notes in m. 257 over the repeated chords; similar grace notes occur in the
piano leading to a pair of chords in mm. 271-272. In mm. 260-261, the flute plays a
pattern which will be repeatedly used in the following section. As shown in figure
12, the new motive, Sc. 6, is two sixteenth notes on a repeated pitch paired with
another sixteenth note and eighth note, usually projecting [016] trichords with an ic
succession of 6-5 or its retrograde.

\[ \text{Fig. 12. Sc. 6 in Scherzo da capo} \]

These four notes are combined with another pair of sixteenth notes, usually Sc. 1
expressed as an ic 3 dyad. These figures are used repeatedly by both hands of the
piano and the flute, and with a few exceptions, include no grace notes. The number
of repeated pitches in these motives creates a different sound in the counterpoint in
this section. An example of these motives and their common pitch-class sets and
interval-class successions is shown in figure 13, below.
This section cadences in mm. 292-293 with another long, low flutter-tongued note in the flute, this time a C natural.

The brief two-measure transition connecting to the second development in mm. 294-295 features the flute alone. This figure occurs again, a half step higher, in mm. 316-318. In each place, the piano leads to the flute entrance with a run of thirty-second note grouplets followed by pair of chords, the first time descending to low register chords, the second time, ascending to higher chords. The flute's F6 in m. 294 begins on the piano's second chord and should be played expressively with a diminuendo through the descending line. Take a breath after the last E4 in m. 295 to prepare the A♭ anacrusis to the next section.

As in the previous scherzando, slow and careful counting in sixteenth-note pulses is essential in both individual and ensemble practice. A version of mm. 222-293 in 2/4 meter is included in Appendix C. Both players must constantly monitor the tempo of each other's sixteenth notes to stay together. Try to work the tempo up to at least the tempo of the previous scherzo section, \( \text{d} = 160-172 \), or perhaps a bit faster. To enter in m. 222, I listened for \( \text{chords} \) in the left hand of the piano, realizing that my first note overlapped the last sixteenth of this rhythm. Interestingly,
the longer notes and rests proved more problematic in rehearsals than the sixteenth notes because it was easier to accidentally add or leave out a beat, or even just slightly shift tempo mentally, causing the ensemble to be apart. A few checkpoints we found helpful were: m. 231, eighth note in flute with eighth note in left hand of piano; m. 234, the subito piano downbeat (it is after a page turn in the piano score!); and m. 252, the flutter-tongued C\textsuperscript{#} should land on the second chord in the piano. In m. 257, place the three grace notes in the flute with the first chord of the piano, and then begin the sixteenth notes with the second chord to align the entrance correctly. The flutter-tongued C\textsuperscript{#} at the cadence in m. 292 should begin with the piano's series of repeated cluster chords. One errata to note in the flute score: in mm. 232-233, the A\textsuperscript{#} in the flute part should be tied.

The new technique used in the second development, mm. 296-339, involves the manipulation of three different series of rhythms. The basic principle behind the organization of these rhythms was explained by Boulez in his essay "Proposals," originally published in 1947.\textsuperscript{27} In this article, Boulez summarized the principles and illustrated them with a short example from the 1946 version of the Sonatine. This section of music may be described as developmental and contrapuntal, and Boulez himself termed it "athematic."\textsuperscript{28} By this term he means to emphasize the "purely rhythmic organization in contrast to thematic (i.e., pitch and contoural) organization varied by rhythmic means."\textsuperscript{29} While "the rhythmic canon (is) independent of the polyphony,"\textsuperscript{30} sections of different rows do contribute to the pitches and, consequently, to the aural logic of the music. Furthermore, the pairs of pitches

\begin{flushright}
\textsuperscript{27}Ibid, 51-3. \\
\textsuperscript{28}Ibid, 52. \\
\textsuperscript{29}Trenkamp, 77. \\
\textsuperscript{30}Boulez, Stocktaking, 52.
\end{flushright}

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within each cell emphasize certain intervals more often than others. Most dyads projectic 5.

As complicated as this canon may appear, it is based upon two cells of two notes each, as illustrated in figure 14. One is a sixteenth note plus an eighth note, (A) and the other is an eighth note, tied to a sixteenth note plus an eighth note triplet (B). These two cells and their retrogrades (A_r, B_r) are then combined into three patterns of rhythms with the addition of some rests, and these are overlapped to form the three-part canon between the flutist and the right and left hands of the pianist. The three patterns follow in figure 14. (Y^1, Y^2, Y^3 are used to indicate the retrogrades of these patterns.)

Fig. 14. Rhythm canon patterns in scherzo development^1

^1Other discussions of this rhythmic canon are included in Mellott, 240-241, and Trenkamp, 77-81.
Because the patterns are of unequal lengths, the individual cells and ends of patterns usually do not line up between the instruments, increasing the desired extreme of variety. The order of patterns for the flutist from m. 296, with pick-up note, through m. 313 are as follows: X\(^1\), Y\(^2\), X\(^2\), X\(^3\), Y\(^1\), followed by an unfinished sequence composed of B, B\(_r\), A. The right hand of the piano plays X\(^2\), Y\(^3\), Y\(^1\), X\(^1\) (missing the first figure), X\(^3\) (last figure retrograded), Y\(^2\). Meanwhile, the left hand plays X\(^3\), (last figure retrograded), Y\(^1\), Y\(^3\) (with an extra sixteenth rest), Y\(^2\), X\(^2\) (last figure retrograded). The flutter-tongued low C\(^\flat\) in the flute (m. 314) follows in a cadential break similar to the one in m. 292 and is accompanied by simultaneous cluster chords in both hands of the piano. This break in the canon continues in mm. 315-316, where the piano plays an ascending sweep leading to a pair of chords in a pattern similar to the one in mm. 293-294. This time, the thirty-second notes are not composed entirely of ic 1 dyads, but the rhythm of the two chords following is identical. The flute reenters in mm. 316-318 with a similar melody and rhythm to mm. 294-295; the pitches the first time are F, B\(_b\), D, E\(_b\), A,\(^{32}\) and the second time are transposed up a semitone, excepting the final note, to F\(^\#\), B, E\(^\#\), E, A\(^\#\).\(^{33}\) A short continuation of the development starts in m. 319, where the A and B cells reoccur, but in no prescribed sequence. At the next cadence in m. 327, the flute performs a long flutter-tongued D, a half step higher than the previous flutter-tongued cadence, appropriate since the motive opening this section also began a half step higher. This is followed by quintuplet grace notes in the piano that are transposed from the grace notes in m. 32, the beginning of the exposition. Imitating the piano, a grace-note triplet in the flute leads into m. 329 which is a transposed copy of m. 67, but here it continues a melodic section at fff. This downbeat begins a second series of rhythm

\(^{32}\)Order nos. 4-9, I

\(^{33}\)Order nos. 4-9, I
patterns \((X^2, Y^2, X^1)\) in the flute that last until the *élargir*. Pitch series usage is somewhat more regular here, although again not coincident with the rhythmic cells; the first row is a complete \(P\) in the flute part, beginning with the \(C^\prime\) tied into m. 330, and ending at the \(G\) tied over mm. 333-334. The row is presented here as six dyads which alternate rising and falling slurred leaps. Three grace notes in the flute in m. 335, a whole step lower than the ones in m. 328, answer the grace notes in both hands of the piano immediately before, and introduce a last bit of counterpoint which must *diminuendo* to the *élargir*. The cadence in mm. 340-341 including the prominent \(F^\#-F\) in the flute is identical to the *plus large* at mm. 95-96, the end of the first stanza. This cadence previously led to the second movement, with its slower tempo and trills. Here, it rather abruptly leads to the fourth and final stanza.

The pitch classes \(F-F^\#\) retain some importance throughout this developmental section, linking to music both before and after. Of the two repeated flute solos, the one in m. 294 opens on \(F6\), and the one in m. 316, on \(F^\#6\). Also, these pitches are played by the flute at the beginning and the end of this section. They are the first notes marked with the new dynamic of *pianissimo* in m. 296, even though the previous one or two notes are already in the faster tempo, and then the last pair of flute notes at the cadence in m. 340. The pair occurs in m. 299 (flute), m. 312 (piano, left hand), and the notes seem to occur separately with unusual frequency, especially in the flute part in mm. 304-309 and 331-338. While a listener probably would not consciously realize this fact, possibly the repetition of these pitch classes lends some hint of a tonal center around \(F-F^\#\) to this section of music.

As in the previous scherzo sections, careful attention to rhythmic accuracy and ensemble checkpoints is helpful in this development. Because of the constant

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35 Perhaps the final A-flat in the flute part in m. 318 should be a B-flat, instead, to continue the transposition, although both the flute part and the piano score include the A-flat.
shifts between rational and irrational rhythms, accurate interpretation is quite challenging. Working out this section in 2/4 provides only limited benefits, because placing the bar lines in the middle of some of the rhythms may actually obscure the correct rhythm. While this might help in learning the correct patterns of notes, to learn the rhythms, I found it most beneficial to simply count sixteenths throughout. On the triplet patterns, one must think of either anticipating the eighth note in this rhythm: \( \text{\begin{tikzpicture} \node[draw] at (0,0) {\cdot \cdot}; \end{tikzpicture}} \) or delaying the sixteenth note in this one: \( \text{\begin{tikzpicture} \node[draw] at (0,0) {\cdot \cdot}; \end{tikzpicture}} \). After you feel comfortable with the sound of the rhythms, try to feel larger groups of twos and threes while retaining an accurate underlying sixteenth pulse. This section should be at least as fast as the second scherzo section; consider working it up to at least \( \text{\begin{tikzpicture} \node[draw] at (0,0) {\cdot \cdot}; \end{tikzpicture}} \) = 172. Creating the correct ensemble in this section requires great independence on each player's part; it can be tempting to play together, even when you are not supposed to! Some helpful checkpoints for alignment include: m. 298, C of flute with G of piano; m. 299, downbeat of flute and piano, both hands; m. 301, A of flute with G3 of piano; m. 304, C4 in flute with C5, piano; m. 305, the piano's chord occurs during the flute's rest; m. 311, downbeat of flute and piano parts; and m. 314, the flutter-tongued C simultaneous with piano's chords. When the flute reenters in m. 316, it begins on the piano's second chord as before. Some other alignment points include: m. 321, the flute part with the left hand of the piano; m. 322, downbeat with right hand of piano, and also the B4 of the flute with the low B-D of the piano; and m. 327, flutter-tongued D with the suddenly staccato notes of the piano. The piano's rhythm in m. 328 is clearly in three, and the flutist imitates that rhythm in m. 329. Here, the grace notes fit better when placed before the beat. The downbeat of m. 332 is clearly set off by the preceding rests in both hands of the piano. Even though these measures are marked diminuendo, it is only marked to decrease in volume from fff to forte in m. 334, and then to mezzo forte in m. 339, so
this section, especially with its extreme registers, never returns to the same quietness that occurred in m. 296. To check for precision, the flutist can listen for the pianist’s grace notes in m. 335. These are notated within the measure, and they are easier to place when played that way, on the downbeat. The downbeat of m. 336 is easily aligned between the instruments, as are the following measures. At the plus large, the flute begins the descending figure and the piano continues it until the fermata, where a dramatic hold will prepare for the exciting opening of the fourth stanza.

**Stanza Four**

The final stanza opens with the piano playing alone, a cadenza-like section in contrast to the previous counterpoint between the flute and piano. The music draws heavily on motives used in the “first allegro” or exposition, creating a recapitulation, or “last allegro.” The stanza can be divided into four large sections, each essentially at a faster tempo than the one before.

<table>
<thead>
<tr>
<th>Section</th>
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<th>Measures</th>
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<tbody>
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<tr>
<td>Transition</td>
<td>mm. 362-378</td>
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<tr>
<td>Très rapide</td>
<td>mm. 379-429</td>
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<td>Très progressivement . . . rapide . . .</td>
<td>mm. 430-473</td>
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<tr>
<td>Extrêmement rapide</td>
<td>mm. 474-495</td>
<td></td>
</tr>
<tr>
<td>Coda</td>
<td>mm. 496-510</td>
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</tbody>
</table>

**Fig. 15. Fourth stanza form**

The piano solo in mm. 343-361 is a restatement of the exposition, mm. 33-52, using exactly the same rhythms, but different rows. Instead of using I₃, the flute theme from the exposition is restated using P₆ in the piano part. The line is written as the lowest notes almost throughout, creating an exactly inverted statement of the first
melodically presented row in the piece. The specific articulations are preserved from
the original flute part, so the notes of the theme can be easily recognized among the
mostly inverted piano accompaniment. The F⁴ in m. 342 is the first note of the
theme, and following the accented and marcato pitches in the left hand, one finds the
repeated Cs in m. 349 as the end of the series. The former flute line remains in the
bass of the piano, continuing with P₄ in m. 350. The last two notes of P₄ are the
grace notes in the left hand in m. 356, and these two pitches also function as the first
two notes of the next row, as before. I₉ lasts from m. 356 until m. 360, where it
ends incompletely, lacking the last two pitches of the row, as before. Measures 360-
361 are like the open cadence in mm. 51-52; here, the first three notes of P₃ create the
hidden bass line and former flute part. At this point, a caesura in the music signals a
slight break to the performers, and also marks the end of this recapitulatory section.

At the ralentir, the flute reenters with Rh. 1, the rhythm it used at the
exposition opening. These three notes are followed by two quarter notes a major
seventh apart. Taken together, this five note motive, a variation of Rh. 1 and Rh. 2,
overlaps at twice in this transitional section, as seen in figure 16, below.

![Diagram](image-url)

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Fig. 16. Rh. 1 and Rh. 2 imitation in Stanza Four

(Figure continued)
Notice also the numerous quintuplet eighth notes throughout this section; these five-note groupings recall m. 37 of the exposition, also using order numbers 6-10 of different series, and certainly coordinate with the longer five-note motive previously mentioned. The flute’s entrance at m. 376 is a transposition of the piano entrance in m. 373, with the addition of five more notes. This unique rhythm links fourteen notes to create the appearance of three five-note groups. Interestingly, it is the previously important C* that is used to overlap. The freedom of tempo in this section contrasts with the fast-paced counterpoint of the previous and upcoming sections.

The *subitement très rapide* at m. 379 begins the second of the four accelerating sections of the fourth stanza, again opening with an extended piano solo. It begins with a double grace-note figure, a motive that was first presented by the
flute in m. 45. The extreme bass register helps us to hear the relationship to the
scherzo. Most of the piano solo can be analyzed using order nos. 6-10 of various
rows. Of special interest is the return of a variation of the scherzo motive in mm.
386-389, much of it preserving the original “tonic” pitches of C, E♭, D♭, G, and D.
More C-E♭ pairs occur in m. 391-394. The rhythms throughout are clearly similar to
those in the first scherzo section beginning in m. 151, and the increasingly frequent
groups of five notes could even be traced back to the initial five-note grouping in the
flute line of the exposition.

The flute reenters solo and including a flutter-tongued E6 in m. 397, and in
m. 399 it imitates the piano part from m. 395, adding a minor third anticipating the
next measure. In mm. 401-403, the flute plays figures emphasizing E♭-C as well as
the remaining pitch classes from the original scherzo motive. The piano picks up
with a low C-E♭ in mm. 404-405. After the partial triplet figures in the flute in mm.
409-412 with the piano accompanying with transpositions of the scherzo motive pc
set, the piano breaks the pattern with grace notes, signaling the flute to play an
emphatic statement of the five pitches of the scherzo motive in even sixteenth notes
(mm. 413-414). The flute plays a cadential figure alone in mm. 415-416; the six
pitches of the original scherzo motive are included here, along with an A♭, which was
the pitch class that the first motive led to in mm. 153-154. The four ic 1 dyads here
create a similar cadence to that in mm. 23-25. In the section that follows, the piano
counterpoint emphasizes different minor thirds in the bass while continuing constant
sixteenth-note motion. At m. 427, the piano plays another set of double grace notes
followed by a long note leading to a chord, similar to its cadence in mm. 412-414.
In fact, the cadential chord in m. 428 is simply a tritone lower transposition of the
chord in m. 414. As before, the flute plays a variation of a scherzo motive; here, the
pitches come from the right hand of the piano’s first motive in the third stanza,
followed by the A-C minor third. The piano finishes this section alone, creating ic 1 dyads in the double grace notes as well as between the principle notes in m. 429.

The next section of the Sonatine, stretching from mm. 430-474, is a technical showcase for both instruments. The performance instructions indicate that the entire section should accelerate into m. 473 and be played in a very staccato style. This rapid section has a thicker texture due to the constant activity in both instrumental parts. The music is created by combining earlier motives; for example, the right hand of the piano begins in m. 430 with the minor thirds and scherzo motive variations, including note repetitions, as in mm. 386, 391, and 403 (flute). The minor thirds emphasized in the upper register of the piano are A⁵-F, then C-A in mm. 431-432, then E⁵-C in m. 433, ending in a return of the scherzo motive at original pitch in the deep bass in m. 434. The flute, meanwhile, uses fragments of rows in a frenzy of sixteenth notes creating a jagged musical line. This flute part in mm. 430-440 is similar to the right hand of the piano in its previous solo, mm. 417-426, where incomplete row forms were presented in steady sixteenth notes. Similar material also appears in mm. 441-448 in the left hand of the piano in the deep bass register, where the notes are beamed in groups of 5+4+5 sixteenth notes. The first phrase decrescendos, the second phrase crescendos, and the third phrase decrescendos for nine notes, then begins a crescendo that is finished by an extra group of five notes leading to a dotted eighth F⁷ in m. 440. The piano creates a slight cadence here with dense chords that will occur at other cadential points, as in mm. 460, 473, 492, 494, and 495. In mm. 440, 473, and 494, the two right hand chords are [037] and [027], and the left hand chords are [016] and [027]. In m. 460, the order is reversed. In each chord, the six simultaneous notes form three ic 1 dyads, resulting in quite a strident sound. Some of the chords in the other cadential measures include more than six total notes, resulting in different pitch-class sets which sound even
stronger and more dissonant, a desirable effect near the end of Stanza Four before the Coda.

A new phrase at a quieter dynamic level begins with the pick-up to m. 441. The first five notes, A\textsubscript{b}, F, G, C\textsuperscript{#}, and F\textsuperscript{#}, form the scherzo motive pc set [01237]. These pitches are varied by the flute throughout mm. 441-444, until m. 445, where a complete statement of R\textsubscript{10} begins. In m. 448-457, a new set of pitch classes {G, E, F\textsuperscript{#}, C, F} is emphasized in the flute, another [01237] pc set. When combined with an extra minor third sound, E\textsuperscript{b}-F\textsuperscript{#}, in m. 450, this entire six-note figure is the flute’s repeated motive from m. 441 transposed up a half step. The piano, meanwhile, plays a sequence of minor thirds/major sixths in mm. 450-451, including E\textsuperscript{b}-C, B-D, E-C\textsuperscript{#}, E\textsuperscript{b}-C, A-C, and G-B\textsuperscript{b}, ultimately emphasizing G\textsuperscript{#}-B in mm. 454-455. While this last third repeats, A2 is repeated three times as the lowest note of the chords in mm. 453-455, until it becomes the dyad A-C as part of an [01237] pc set in m. 456. Accompanying it is another minor third in the right hand, E-C\textsuperscript{#}, which is part of an [01237] chord E\textsuperscript{b}-A-D-E-C\textsuperscript{#}. The piano repeats these basic pitch classes, until the cadence in m. 459. The piano’s quiet double grace-note figures in m. 459 are similar to those in m. 429, and the flute’s figure is like that in m. 425, even emphasizing the same B-F dyad, although in reverse. The piano’s long notes have changed from B-C to B\textsuperscript{b}-G, another major sixth. After a piano solo where two [012378] scherzo hexachords are embedded in the right hand, the flute reenters and the former contrapuntal texture resumes. Here again, the flute plays steady sixteenth notes beamed in groups of four and five, and the piano adds variations on the minor third and scherzo motives. The flute part through m. 472 is derived from sections of rows with many [015] and [016] pc sets included, while the piano includes minor thirds in its music, especially F\textsuperscript{#}-A in mm. 469 and 472. After the cadence in m. 473, where
the flute plays its highest note of the piece so far, a C*7, the fastest section of the work begins.

The section marked extrêmement rapide lasts from m. 474 until the next cadence at m. 491. The piano's counterpoint includes scherzo motives and minor thirds, including many repetitions of G-B in mm. 474-479, E-G and E*-F* in mm. 480-483, B-D in mm. 485-486, and returning to E-G in the highest register in mm. 489-491 before the cadence. The dotted lines in between the flute and piano parts are apparently meant to group certain notes together, indicating intricate compositional processes. The answer given by Trenkamp to this dilemma after a conversation with Boulez in 1972 was that

the true meaning of these notations will most likely remain hidden, for there is not a sufficient variation of parts nor a clear enough serial structure to reveal their implications. Further, Mr. Boulez, when questioned, was unable to explain them.²⁴

A possible explanation for the first set of dotted lines and the double stemming in the piano part in mm. 474-476 is an embedded partial statement of P₉: \{A, A₉ (fl), E, B₉, F (pno), C*, C (fl)\}.

The caesura in m. 478 serves to highlight the G-B which has been repeated in the deep bass of the piano and now is included in the flute. The double grace-note figure in the flute in m. 480 has been cadential before, as in mm. 408, 440, and 456, and after this, the flute uses overlapping portions of rows from P₅, P₁₉, P₀, P₂, P₅, and P₉. The notes are beamed into groups of five and four sixteenths in the following sequence: 5+5+4, 5+5+4, 5+5+4, 5. The highest notes in this flute line, following the long B₆, are B₆, C₇, and B₆. The repeated C7s at the cadence in m. 491 are surely prepared by these high notes. Although similar to the cadence that will end the piece, this cadence is somewhat deceptive, because the piano plays a

²⁴Trenkamp, 87.
minor third, C⁴-E, as its lowest notes, and the activity continues without a rest. At this
rare rhythmic unison for the flute and piano, a definite change in texture occurs.
After a partial triplet figure in the piano, the flute plays its B-F cadential figure that
occurred previously in mm. 425 and 459; here it includes the F⁴-F dyad. This
transitional section ends after two more partial triplet figures, which merely sound
like pairs of decisive chords because of the shifting tempo and rhythms. These
repeated cadential figures in both the flute and piano parts clearly mark an end to the
frenetic activity of the fourth stanza and provide a smooth transition to the coda.

The music of the fourth stanza is challenging for both instruments, providing
dazzling climax to the work. At least starting together is not difficult; at the tempo
rapide at m. 342, feel the grace notes as a downbeat, and the written downbeat as the
next pulse. The flutist’s next entrance in m. 362 lines up easily with the piano
melody, and the players trade parts in mm. 368-372. A quick breath before m. 378
allows accurate placement of the downbeat, as well as adding some air for the
crescendo. Be careful to observe the constantly shifting tempos that alternate
between slower and faster. For the rapide sections, strive for a tempo of \( \text{P} = 200. \)
In this and the following polyphonic sections involving the flute and piano, notes are
beamed primarily in groups of four and five, but also twos, threes, and other
groupings. Often, the first note of a group has an accent mark, indicating that the
note should receive an obvious emphasis. Other beamed notes are grouped by
measure, and if not marked with accents, should probably receive little extra
emphasis, although feeling the note groupings will assist with counting and musical
phrasing. In some places, notes are beamed across bar lines, indicating no special
emphasis should be given to the first note in the measure that is beamed across.

After the piano solo winds down in mm. 394-396, the flute abruptly enters at
fortissimo and with a strong flutter-tongued E6. Use the two eighth notes in m. 398
to set the tempo for the following sixteenth notes. A version of this section rewritten in 2/4 meter is included in Appendix C. As with previous technically demanding sections, practice with a metronome in duple meter may help to secure the note and rhythm patterns, as well as with increasing tempo gradually and accurately, but be sure to practice from the score, as well, to retain the original note groupings. Some rhythmic checkpoints for this section include: m. 405, the downbeat and fourth sixteenth note; m. 406, the downbeat; m. 408, the downbeat; m. 414, the downbeat; m. 417, the downbeat; m. 427, the downbeat; and m. 428, the third sixteenth note. To find the flute entrances in mm. 418, 421, and 425, it helps to follow the piano’s two- and three-note groupings in the score, and for the accompanist, at least in earlier rehearsals, to lightly accent these groupings within the beamed groups slightly until they are memorized. Placing the grace notes in m. 427 early, almost on the last sixteenth note in m. 426 will allow them to fit in, but the pianist must also place his early if they are to line up correctly between the parts.

The gradually accelerating section at m. 430 begins simultaneously in both instruments, although with somewhat different rhythms. The flute’s grace notes in m. 430 should be placed before the beat, leading into and accenting the C5. The flute part from mm. 430-459 may be found in Appendix C, rewritten in 2/4 meter, as well as mm. 463-489. The extreme register changes required throughout are demanding of the performer. Using plenty of air instead of a heavy tongue and staying relatively relaxed with a flexible embouchure will enhance a performer’s accuracy and tone, as well as decrease the chances of fatigue in the embouchure due to excess movement. Try to eliminate unnecessary jaw and even body movement to stabilize the air stream and prevent cracked notes. Practice the 5:4 in m. 446 carefully with a metronome to get the feel of this figure so that the piano’s steady sixteenth notes cannot influence you. In m. 448, I found middle finger F♯ to make the grace note respond better. On
the repeated notes in mm. 442-443, 443-444, 448, 452, and 454-455 marked with an accent, slur, and dot ( ), a “doo-dot” jazz-like articulation seems appropriate. All grace notes should be played quickly before the primary beat. Some checkpoints to listen for in ensemble practice include: m. 433, C4 of the flute with the piano’s left hand; m. 440, the long F♯ of the flute with the piano’s first chord, then the two instruments beginning together on the last sixteenth of the measure; m. 449, downbeat, the flute with the piano’s low D♯; m. 450, the eighth note downbeat in both instruments leading to the second eighth note of the measure; and m. 454, the accented downbeat in both instruments. To enter accurately in m. 463, count note groupings beginning in m. 461: 2+3+2+2+2. Do not allow the left hand accents in other places to confuse you! To encourage the accelerando, consider using the pick-up to m. 441 to push toward a faster tempo. Also, the flutist can gradually increase the tempo beginning at the entrance in m. 463. Use the dynamics throughout this section to shape phrases, to let the music ebb and flow while it drives to the conclusion. Try to hear the shape of the overall line, in spite of the sometimes extreme register changes.

Continuing the music in the fourth and faster section at m. 474 is a bit tricky because of the piano’s pair of chords arranged as a partial triplet in m. 473 and the long C♯ in the flute extending over the bar line. Because the piano begins its insistent low G-B♭ figure one sixteenth note before the flute comes down from the C♯, the pianist is primarily responsible for setting the tempo. Besides trying to keep a continuous, internal sixteenth pulse throughout these measures, the flutist can hear and respond to the left hand of the piano. Check in on the downbeat of m. 476; you will hear the piano’s grace notes leading down to the accented low G, and you can place your C♯ downbeat with it. Bring out the G-B♭ as much as possible in m. 478-479, but do not hesitate at the caesura, because the piano does not pause there. Some
performers decide to execute an *accelerando* with the *crescendo* beginning around m. 482, because the texture thins and the flute can take the lead, accelerating to the *précipité* at m. 491.

The final section, mm. 496-510, returns musical ideas from the first three stanzas of the piece and acts as a Coda. Although the marking *très modéré, presque lent* returns from the second stanza, the grace-note figure is actually from m. 32, the beginning of the exposition in the first stanza. The piano uses the same pitches, rhythm, and time signature as before. The music continues, though, with a trilled $B^b-C^b$, as in the second stanza, instead of a marcato $B^b-B$. A variation of the five-note theme from the second stanza is included in the left hand of the piano in mm. 497-498. Formerly, the flute played these pitch classes in similar rhythms in mm. 98-100 and 135-138, as well as the first four pitches in mm. 112-113. The grace note figures are varied three more times in mm. 496-502. The piano in m. 499 plays an exact retrograde of its figure in m. 496, and then in m. 500 the right hand returns to its first ordering while the left hand uses the reordering. This results in the two halves of $I_2$ being stated in order, nos. 1-5 and 8-12 occurring simultaneously in the treble and bass clefs, respectively. The pitches of the trill fulfill order nos. 6-7 to complete the row statement. When the flute reenters in m. 499, it plays a flutter-tongued $F^6$, which was the first flutter tongued note of the piece, also occurring in m. 2 after a $B^b$. The piano in m. 500 repeats the pitch classes from mm. 497-498, still accompanied by the $B^b-C^b$ trill. The pitches are in different octaves and in retrograded order, and the rhythm is retrograded and also diminished in value by one-half. The third and final variation of the grace notes in the piano in m. 502 is the last possible combination using these ordered sets of five, with the right hand retrograded from the first version, but the left hand the same. The following trill is
cut short and diminuendos abruptly to an F1. An F1 also ended the exposition, but was followed by an ascending glissando.

The très large from mm. 503-506 repeats material from mm. 217-220, the end of the long transition leading to the second scherzo. Notice that the first two upper pitches in the right hand of the piano are F and F#. The piano plays simultaneous statements of I₁ and I₄ in the right hand, as before. The rhythm and meters are the same; the only difference is that the flute’s flutter-tongued C⁹ is one octave higher in this repeated version, like the climactic C⁹ in m. 473. Also, the piano does not immediately complete its rows after m. 506. In the first instance, a cadential gesture in m. 221 finished this musical idea using a simultaneous B⁷ and B⁹. In this case, three more measures stretch between the eleventh notes of the rows and the final cadence on B⁷ and B⁹ in the last measure, where it occurs in the same rhythm as before. The three additional measures, mm. 507-509, refer back to mm. 29-30, and actually use the sonority from the very first measure of the work, a G-C⁹-A♭ in the right hand with a low C in the left (the B natural from the first measure is missing). Then, a complete scherzo motive from the third movement is played on C-E♭, whereas at the end of the introduction to the first stanza, the scherzo motive was left unfinished.

The final measure, très rapide, is a fitting close for the Sonatine. This music has been used cadentially before, and the flute’s chromatic run of four grace notes leads to its highest pitches of the entire work, two F7s. These grace notes are similar to the flute’s five-note chromatic sweep that opened the tempo rapido at m. 342, at the beginning of the fourth stanza, although much of the music is repeated from m. 221, immediately before the second scherzo. The B-B♭ in the right hand of the piano is even accompanied by the same left hand figure, although it is not in unison with the right hand, as before, and the figure descends instead of ascends. The four pitch
classes in the piano in the last measure, G-F\textsuperscript{b}-C-B, are like the first chord of the piece, but without the A\textsuperscript{b}. The Fs in the flute are a change from the C\textsuperscript{#}s of m. 221, although two Fs were the next pitches played by the flute in m. 222. Not surprisingly, the five pitches of the flute and piano form an [01256] pc set, the same set formed by the first notes of any P or I row. Thus, the work ends with a nod to every major section and motive of the entire work, bringing the piece to a logical yet dynamic conclusion.

The conclusion of the *Sonatine* demands that the flutist be proficient at performing in the fourth octave of the flute. Depending on the tempo used in the *très large*, extra breaths may be needed during the long C\textsuperscript{#}7. If necessary, additional breaths could be taken between mm. 503-504, and mm. 505-506, but if one prepares during the preceding rests, these may be avoided. If a flutist has not played much in the fourth octave of the flute, practice of scales daily up to C\textsuperscript{#}7, D7, E\textsuperscript{b}7, E7, and F7 will help prepare one for the final measure. The fingerings that I used for the E\textsuperscript{b} and F are given in figure 17, below. Use plenty of air, and keep the embouchure open enough so that the lips do not “buzz” together when performing these high notes. If one gets fatigued from actually playing these notes in practice sessions, remember that it is useful to practice fingerings alone, as well. Daily work with the flute’s extended range will yield a confident and dynamic ending in performance of the *Sonatine*.

\[ \begin{array}{c}
\text{C\textsuperscript{#}7} \\
\text{E\textsuperscript{b}7}
\end{array} \quad \begin{array}{c}
\text{F\textsuperscript{#}} \\
\text{F7}
\end{array} \]

Fig. 17. Fingerings for E\textsuperscript{b}7 and F7
RECOMMENDATIONS

In conclusion, I would recommend the study and practice of this piece to other flute players for many reasons. It is certainly one of the most formidable pieces of repertoire available and will challenge even the most ambitious flutist. The physical demands in terms of finger technique and embouchure control are extreme, and the rhythm problems require the utmost control and concentration. After learning this piece, I cannot imagine being intimidated by a rhythm problem ever again! Because of the limited number of serial-based pieces for solo flute, this one is especially important to learn, to gain an appreciation and greater awareness of music written in this style. Thorough study of the construction of the Sonatine, from the overall form to individual pitch and rhythm motives, has vastly added to my understanding and appreciation of the piece, and I expect this will result in a more accurate, cohesive, logical, and ultimately, musical performance. Finally, learning this piece has made me a better flutist, and I believe this will be true of anyone who chooses to perform the Sonatine.


Hughes, Allen. “French Musical Scene—Pierre Boulez is a Key Figure.” *Musical America*. 77 (1957): 34 and 120.


### APPENDIX A: MATRIX

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APPENDIX B: GLOSSARY OF TERMS IN *SONATINE*

à 2 mains - in both hands
accelerando (accel.) - becoming faster
al - to the
alourdi - to make heavy, weigh down
appuyé - with emphasis
arraché - sharply accented
assai - much, very
avec humeur - with humor, fanciful
beaucoup de péd. - very much pedal
ben marcato - quite accented
ben tenuto - quite sustained
brutal - savage, fierce
comme une percussion - like a percussion instrument
compter à la double croche - to count from (to) the sixteenth note
couper sec et bref - cut off abruptly and briefly
dans tout ce développement enchaîner les trilles de piano et de flute d’une manière aussi continue que possible - throughout the development, connect the trills of the piano and the flute in a manner as continuous as possible
davantage - more, further
de nouveau - again
di nuovo - again
élargir - broaden and slow down
encore - again, still
en éclaboussures - like splashes
et - and
étouffé - damped, stifled, muted
extrêmement rapide - extremely fast
flatterzunge (flatterz.) - flutter tonguing
glisando (gliss.) - a glide from one note to the next
heurté - abrupt, harsh, jerky
incisif - sharp, precise
large - broad, full, fairly slow
legato - smooth, even, without any break between notes
leger et à peu près sans péd. - lightly and almost without pedal
le moins de péd. possible - the least pedal possible
lent - slow
les liaisons en pointillé ne sont mises que pour marquer l’articulation des motifs - the slurs of dotted lines should not be interpreted as articulation marks for the motives
loco - return to normal position
lourd - weighty, strong
louré presque sans péd. - legato but with emphasis on each note, almost without pedal
main droite (m.d.) seule - right hand only
mais précis - but precise
marcato (marc.) - accented, stressed
mat. - dull

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meno - less
molto - very, much
mouvement (M.) de l’introduction - tempo of the introduction
non troppo - not too much
percuité - explosive, percussive, forceful
peu - little, a little
piquez les notes - quickly release (or poke) the notes
più - more
plus - more, also
pochissimo (pochis.) - as little as possible
poco - little, a bit
précipité - hasty, hurried
précis - exact, precise, rather terse
presque - almost
presser - hurrying, quite fast
quasi - almost like
ralentir - to slow down
ralentir encore - still slower
rapide - fast
renforcer avec soin les notes communes avec la partie de flute - reinforce with care
the notes in common with the flute part
résonné - with full sound, resounding
revenir rapidement à - return rapidly to
sans - without
sans beaucoup de pédale - without very much pedal
sans forcer - without forcing
sans inflexion et sans timbre - without inflection and without tone color
sans nuances - very uniform, without shading
sans pedale - without the damper pedal
scherzando - playfully, jestingly
sec - drily, abruptly
sempre - always
senza - without
serré - tightened; with increasing tension and speed
sifflant - hissing, whistling
simile - similarly, in like manner
staccato (stacc.) - detached, with each note separated from the next and quickly
released
strident - shrill, sharp, jarring
subitement - suddenly
subito (sub.) - suddenly
tenuto (ten.) - held, sustained
tenir bien les sons - thoroughly sustain the notes
touches blanches - the white keys
très - very; very much
très aigu - very sharp, shrill
très articulé - very distinct, articulated
très brusque - very sharp, abrupt, sudden
très égal - very equal, even
très incisif - very sharp, precise
très librement - very free, unrestrained
très marqué - very accented, emphasized
très modéré - very moderate tempo
très progressivement de plus en plus rapide et tourbillonnant jusqu'à la mesure 474 -
very gradually more and more fast and whirling up to m. 474
très sec - very dry
violent - strong, forceful
APPENDIX C: EXCERPTS REWRITTEN IN DUOPLE METER

Practice Version, mm. 151-194

[Music notation image]

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Practice Version, mm. 399-459
VITA

Diana Marie Tiffany was born in Aiken, South Carolina, on December 14, 1967, the daughter of Anna Marie and Burton Tiffany. After graduating from South Aiken High School in 1985, she attended the University of South Carolina in Columbia, South Carolina, where she received a Bachelor of Music Education degree with a Performance Certificate in 1989 and a Master of Music Education degree in 1991. While attending the university, she performed in numerous symphony and opera orchestras in South Carolina and Georgia. She began her doctoral studies at Louisiana State University in 1991. During this time, she was active in various musical groups, including the Ohio Light Opera in Wooster, Ohio. She has taught at Texas A&M University-Kingsville since January 1994. As Assistant Professor of Flute, she teaches applied music, theory, aural training, music appreciation, mariachi, chamber music, and flute methods. In addition to her activities as a clinician and adjudicator, Ms. Tiffany also serves as principal flutist in the Corpus Christi and Victoria Symphony Orchestras. Her primary flute teachers have been Dr. Glen Riggin, Dr. Constance G. Lane, and Dr. Katherine Kemler. She will earn the degree of Doctor of Musical Arts at the May Commencement, 1999.
Candidate: Diana M. Tiffany

Major Field: Music


Approved:

Katherine Kandler
Major Professor and Chairman

Dean of the Graduate School

Examining Committee:

Katherine Kandler

(Co-chairman)

Date of Examination:

November 17, 1998