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CADENTIAL GESTURES IN POST-TONAL MUSIC:

THE CONSTITUTION OF CADENCES IN MESSIAEN'S ILE DE FEU I AND BOULEZ' PREMIERE SONATE, FIRST MOVEMENT

by

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A dissertation submitted to the Graduate Faculty in Music in partial fulfillment of the requirements for the degree Doctor of Musical Arts, The City University of New York

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Introduction

Non-harmonic Cadential Analysis: Ten Elements of Anticipation and Recognition

In music, cadences are a major procedure by which sections are defined (and, often, decorated). As a result, the intellectual mechanism for grouping and understanding musical events involves analysis of the cadential process.

In order for groups of musical events to be intuited by the listener, a temporal succession is created which moves from the introduction of one or more themes, motives, or other musical ideas to an intensified state – tension – produced by conflict between any number of musical elements within the originally presented idea(s). These elements may include: pitch sequences; patterns of pitches sounded simultaneously; the speed at which events are produced and therefore processed by the mind of the listener; rhythmic or metric patterns and the breaking of these patterns; register; timbre; instrumentation; and the like. Once tension is established between several of these musical elements, the ear expects and anticipates some kind of resolution which will return the music to a state of equilibrium. The process of resolution frequently results in cadence.[1]

In tonal music, cadential processes are most easily identified by their properties of pitch. There are numerous other methods, many unrelated to pitch, by which composers prepare cadences for maximal effect; however, the conservatory-trained Western ear is so strongly oriented toward pitch that auxiliary cadential contributions may scarcely be noticed.

In music of the post-tonal era, the pitch component of cadences is no longer as recognizable as it is in Example 1 – indeed, sometimes it is not at all discernible – and the

sense of musical tension, of heightened intensity (and, perhaps, complexity), stems from other sources. The identification and examination of cadential phenomena in newer music is further complicated by the extensive range of styles and techniques that this music may employ; most significant, though, is the fact that the harmonic language of post-tonality excludes by definition the V-I (or similar) resolution of dueling tonal areas which is characteristic of and crucial to nearly all of the Western tonal repertoire.[2] An analytical investigation of post-tonal music, then, begins with a deficit in the absence of some defining – or, at least, suggestive – criteria for identifying cadences and, ultimately, dividing a piece into meaningful musical sections.

While cadence is a central concept in Western music of all styles, references to cadences in the post-tonal literature are surprisingly scarce. The undertheorization of the subject is symptomatic of the problem discussed above: that the Western musician is generally extremely concerned with pitch, often to the exclusion of other musical elements. George Pratt makes reference to this peculiarity and aims to redress the imbalance of pitch-focal musical schooling in his *Aural Awareness: Principles and Practice;* he claims that

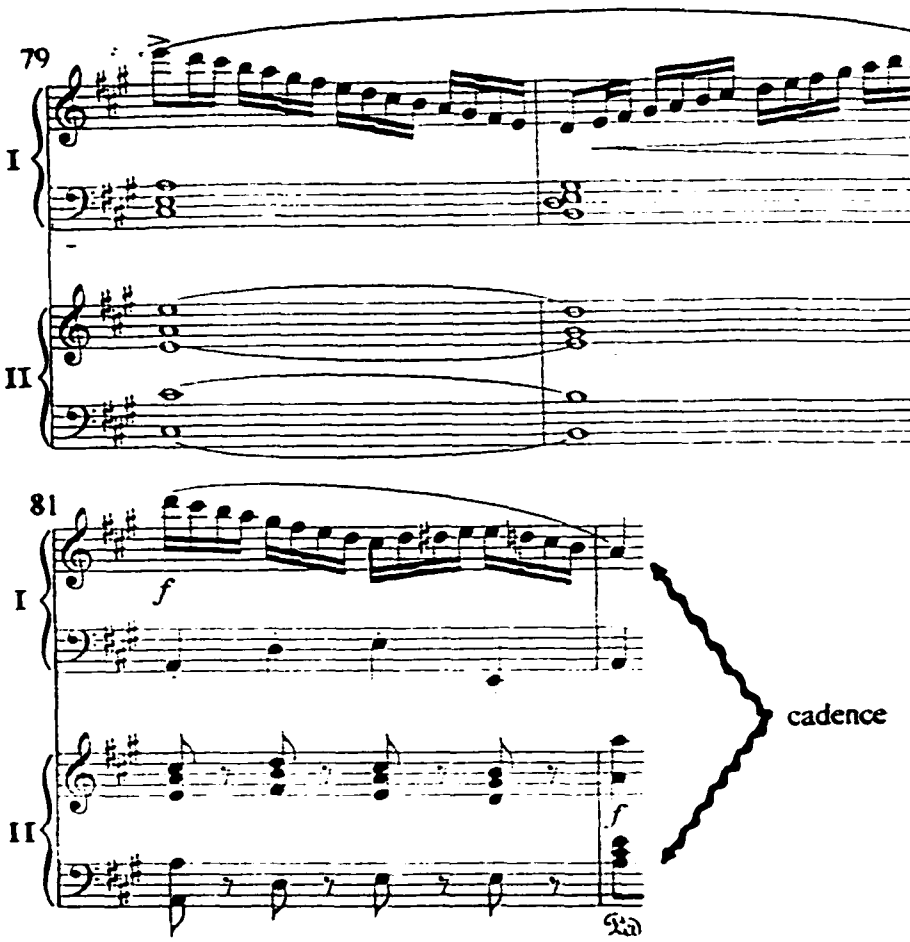
> ...we are taught to focus so nearly exclusively on the pitches and rhythms of tonal tunes that many committed musicians find it difficult to identify points of contact with contemporary western music . . . the implied indoctrination that music consists of tonal tunes and modal melodies carries with it the corollary that, if these are missing, it cannot be proper music. (4)

The underdevelopment of non-pitch-oriented theory is evidenced in theoretical scholarship as well as in the educational realm; the few scholarly writings on, specifically, post-tonal cadences are nearly all based upon works containing a traditional

formal and phrasal structure, such as those of Schoenberg. This study, then, is meant as a step toward a more comprehensive theory of the cadence after tonality. The cadential elements posited in this first chapter include several which are not dependent on pitch; to begin, the signals pointing to a cadence of Mozart will be compared to those heralding a cadence of Boulez.

Example 1 illustrates a cadential process which, while exhibiting the typical dominant-tonic resolution of the tonal style, is strongly motivated by non-pitch-related components.

Example 1. W. A. Mozart: *Concerto in A Major*, K. 488, first movement, mm. 79-82. Two-piano reduction. Cadential process influenced by non-pitch elements.



As is common in tonal cadential approaches, Example 1 contains a manifest change in the speed of harmonic progression as the V-I resolution draws near. The shift in harmonic rhythm, here moving from chord changes at the whole note (mm. 79-80) to the quarter note (m. 81), has a strong effect on the strength of cadential anticipation. So, too, does the emergence of the left hand and second piano figurations in m. 81. A primary feature of this shift is that of articulation, progressing in the left hand of the solo from slurred whole notes to staccato quarter notes. The range in this passage is also important to note; its augmentation from the beginning of the second expository statement (m. 67) is forceful. For instance, the right-hand scalar passage in m. 79 contains the highest and the lowest pitches yet heard in the piano's melodic line.

The passage shown in Example 1 is also notable rhythmically; the cascading sixteenth notes in measure 79 and in measure 80 are preceded and grounded by a single eighth note (the first note of m. 79 and that of m. 80). The perception of increased speed in m. 81 is enhanced by the omission of this eighth note; in this way, the shift in harmonic rhythm is supported by the rhythmic details of the line.

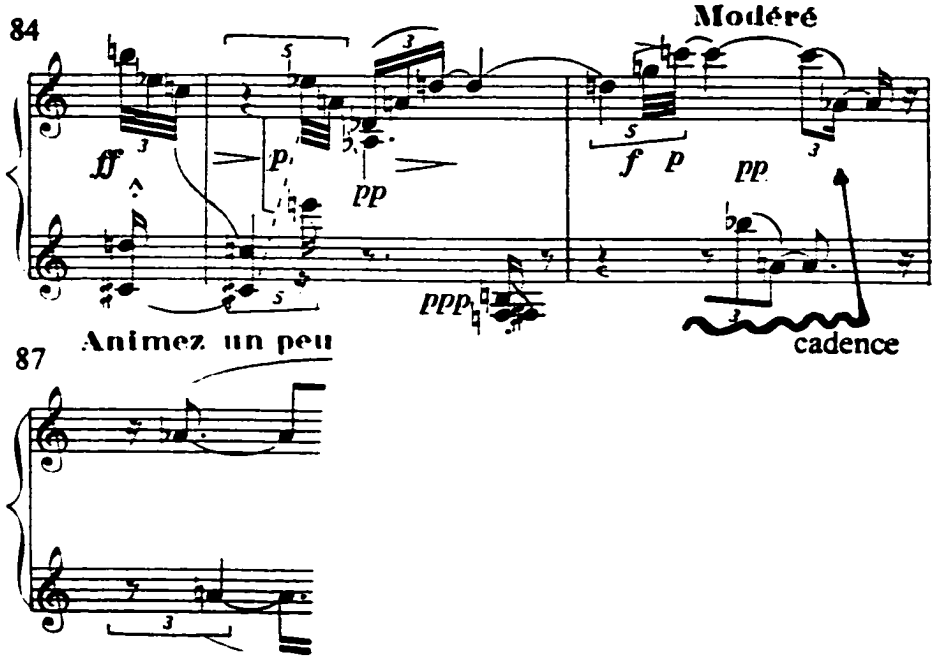
Contour, additionally, plays an important role in the anticipation of the cadence in Example 1; the shape of the right-hand melody moves downward, diatonically and stepwise, for four beats in measure 79. In measure 80, it returns nearly to the pitch at which it began, again moving stepwise through four beats. Measure 81 represents a new shape: it steps down diatonically for two beats, then moves up for one beat (with the addition of chromatic coloration through the pitch D#). The final quarter of m. 81 moves contrary to the preceding one, forming in all a contoured beat pattern (beginning in m. 79) of four, four, two, one, one. This diminution illustrates the contribution of two non-

harmonic forces to the cadence: contour and the repetition of a motive or phrase (in this case, a scalar motive).

The question of pitch centricity, in this case the centricity of the tonic key of A major, is obvious here and need hardly be mentioned. However, one dimension of centricity in Example 1 holds special relevance to the equivalent process encountered in post-tonal music: the vital format of departure and return. Operating on many levels and in countless schemata, this concept is used with regularity in music of all genres and periods. In this instance, the pitch A appears among the accompanying whole notes of m. 79, its scale spelled out in the right-hand figuration. The pitch and scale disappear in the following measure (except in passing in the scale figure), and return with added dynamic and rhythmic energy in mm. 81-82. This process of departure and return, of course, takes place on a grand scale as well; it not only arches through the first movement, but unifies the entire three-movement concerto (establishing A major in the first movement, moving away to F# minor in the second, and returning to A major in the third). The centricity of pitches at cadential junctures generally is identified by such means, and is extremely useful to recall in its subtler post-tonal guise.

Let us examine now a cadence from the post-tonal repertoire, noting the factors from Example 1 which no longer operate as well as those which remain the same.

Example 2. Boulez: *Première Sonate*, second movement, mm. 84-87; some cadential elements remain from the tonal period, notably contour.



Like Example 1, Example 2 derives some of its strong cadential motion from contour. Beginning on the *pianissimo* dyad in measure 85, the melodic line moves up, mainly by perfect fourths. This ascent turns immediately from the high C held in the right hand, stepping down through the remainder of m. 86 from C – B-flat – A – A-flat. Coinciding with this pitch descent is a dynamic descent from *forte* on the penultimate note of the ascent, G, to *pianissimo* at the close of m. 86. A further signal of *dénouement*[3] in m. 86 occurs in the form of tempo marking; in a section marked *Plus animé et plus nerveux*, m. 86 bears a sudden *Modéré*. The activity level prior to the cadence, in contrast to that of the Mozart example, decreases; while the motion slows, it functions similarly to the tonally typical increase in harmonic rhythm.[4] The piquing of the listener's attention, whether through perceived quickening or through an opposite

method, is achieved just prior to the completion of a musical thought and its delineation through cadence.

As a group, the above quartet of cadential signals – shifts in contour, tempo, dynamic, and activity level – is quite powerful; adding to them are several more gradual changes. A decrease in the complexity of voicing occurs subtly in a phrase punctuated by dynamically outstanding chords which disappear at the end of m. 85; these chords (one in each measure from 83-85) also punctuate the line by means of *staccato* markings. The articulation becomes notably smoother as the phrase progresses and as note values lengthen after a brief period of high activity in mm. 84-85.

Through numerous signs not unlike those discussed in Example 1, the Boulez cadential area shows itself akin to the Mozart. While a V-I cadence certainly does not occur, pitch centricity does figure into the Boulez by means of the final tones, A and A-flat, of measure 86. After a brief rest delineating the two sections of music separated by a cadential finish, these two pitches are retrieved alone and immediately in m. 87. The A and A-flat return at the same dynamic level and in the same octave, also as part of a slurred and simply voiced phrase. Thus, the cadence in Example 2 serves not only to distinguish the space between two musical sections, but to join them by a threaded transition.

While Examples 1 and 2 show the similarity in means between the construction of cadential gestures in tonal and post-tonal contexts, the components of post-tonal cadences are not always readily apparent to either the listener or to the performer; as a result, attempts to meaningfully group musical events may be thwarted. As a basis for deeper understanding of the cadential process – hopefully resulting in an increased awareness of

compositional and interpretive strategies – this work proposes ten components by which cadences may be anticipated and identified. Most of these have been presented in a tonal context through Example 1. Through the analysis of cadences in Messiaen's *Île de feu I* and the first movement of Boulez' *Première Sonate*, each of these ten cadential components is explored and validated. It is the purpose of this work not to endorse certain interpretations or performance choices, but to provide performers and scholars with a set of workable criteria for identifying and projecting cadences without dependence on harmonic formulae.[5] Notwithstanding this work's focus on post-tonal music, the cadential concepts set forth herein are meant to apply equally to tonal music and to open the mind to the less-studied compositional techniques which enhance the power of cadences as a whole. The identification and study of cadential material in post-tonal music are useful not only for reasons of improved understanding of that repertoire, but because they sensitize the performer to the less obvious components which contribute to the patterns and phrase articulations of tonal works.

One notion of great importance in appreciating cadences is that of tension. Christopher Hasty posits: "Musical motion is often intensified by the orientation of one event toward another."[6] While the concepts of motion and intensification are somewhat difficult to define, let us theorize them further as they relate to tension and, thus, to the cadential effect.

Musically, motion is the force that, through an aural stimulus, propels the perceiver toward a forthcoming sensation. This sensation must differ in some way from the immediately preceding musical experience.

Intensification in music may be understood as any compositional process producing in the listener an increased interest in, and anticipation of, what will follow. This may be accomplished in a myriad of ways, resulting in the perception that time is moving forward faster – or that one musical event is oriented strongly toward another. Intensification, especially, is closely related to the concept of cadence because of the well-known historical association of cadential approaches with accelerating harmonic motion. In fact, the single characteristic crucially required of a cadence as defined in this work is its ability to be anticipated by means of some manner of compositional preparation. The ten cadential components posited are meant as guidelines for identification, but the true measure of a cadence is simply that it can be sensed before its completion.

According to Hasty, motion in music can be sensed as it occurs in time through the perceived intense orientation of a musical event toward what follows. From his statement as quoted above, then, it follows that the approach of an outstanding musical event – for instance, a cadence – can be anticipated by a perceived acceleration of motion, as sensed by the intensification of the connection (whether temporal or otherwise) of successive musical events. It is on this supposition that our definition of cadence is based.

Before moving into the discussions of specific cadences in the chapters which follow, it is advisable to begin with a common set of principles that will be useful in the situations to be encountered. In this case, the principles are the ten cadential predictors suggested above, all of which can be found in one or both of the above musical examples. It is important to note that the cadential factors enumerated here stem purely from one

musician's aural analysis of Boulez' *Première Sonate* and of Messiaen's *Île de feu I* (as well the the remaining *Quatre Études de rythme*); as such, the cadential components catalogued here are meant to be pragmatic and not prescriptive. The shaping of a musician's performance choices is dictated by an individual hearing, a personal analysis, not solely by objective study of the work to be performed. This study is not intended to set forth Messiaen's or Boulez' intentions in composing the two pieces, nor is it meant to divulge what listeners "ought" to hear in the music. Rather, the purpose of this project is to reacquaint musicians with cadential ideas which, having likely been neglected in classical training, remain in the recesses of the performer's imagination. Through discussion of one person's findings in a specific repertoire, it is hoped that the reader will gain a more complete palette with which to create inspired interpretations of contemporary music in general.

The cadential components to be investigated in this study, along with their specific contributions to the sense of an approaching cadence or musical boundary, include:

I. ***Duration.*** Relative to surrounding durations of events and durations in similar structural areas of a piece, a noticeable shift in the length of single notes or in articulated groups of notes affects the perception of an event and what follows it. [7]

II. ***Silence.*** The appearance of silence – whether as a rhythmic component, a punctuation mark, or a respite from activity – affects perception of the music surrounding that silence. Often, silence of a certain relative length,

in combination with other potentially cadential elements, gives the retrospective impression of having heard a cadence. Retrospective determination of the existence of a cadence may be misleading, and one must guard against awarding retrospectively heard cadences the same stature as those that are anticipated upon hearing a convincing convergence of recognizable pre-cadential signals.

III. ***Contour.*** The influence of tonality on twentieth-century contour is evident. Procedures involving stepwise motion, notable manipulation of the effects of range, and other contour-related events will be discussed in their relationship to cadences.

IV. ***Centricity.*** The position and reappearance of a certain pitch or pitches as stable is important to note when determining the significance of pitch in an area leading to or following a cadence. In the absence of key areas, cadences must clearly have a different relationship to tension resolution. The establishment of any number of pitches as occupying a consistently stable position hearkens back to tonality and carries with it notable implications for the status of those pitches at cadential junctures.

V. ***Activity level.*** In tonal music, the harmonic rhythm often grows faster as cadences approach, intensifying the music and adding urgency to the completion of the musical section. Likewise, the level of rhythmic activity in post-tonal cadential areas can hold significance and will be examined.

VI. ***Motivic and phrasal repetition.*** Because tension in post-tonal music is not achieved through the duality of key areas at variance, other elements contribute to lend impetus and intensity to the progression of the music. In Messiaen's works, one of these elements is the continuous repetition of a motive, pitch series, or sequence. The issue of non-progressive repetition (that is, the use of a series without extrinsic change such as a diminuendo or a ritard) will be raised. Repetition is an especially significant factor in this catalogue as it is the only one representing continuity. Each other member of this list involves a stimulus through change, while repetition is related to change only minimally – by means of the passage of time without the addition or subtraction of events. This situation seems almost antithetical to the design of Western art music (with the obvious exception of minimalism).

VII. ***Tempo.*** The establishment and consistency or changing of tempo may contribute to cadential perspective. The mature Messiaen used frequent and specific performance markings which, offered mid-phrase, sometimes affect the flow of the music and even amount to a point of articulation.

VIII. ***Dynamics.*** Notes that are louder or softer than what precedes them pique interest and may signal the approach of or occur simultaneously with other potential indicators of cadences. As with duration, dynamics will be approached in terms of their relation to surrounding levels.

IX. ***Texture and color.*** These two musical elements are among the most salient and the most ephemeral. One purpose of limiting this study to

piano music is to avoid evanescent discussion of instrumentation, color, and their meaning in the cadential *mélange* of contributing factors. Texture and density, as well as written suggestions for musical expression including color, will be considered in the formation of decisions regarding cadences.

X. ***Articulation.*** The length and character of specific tones contribute greatly to the qualities of motion and/or stasis in music. Conspicuous changes in articulation, especially in music of Boulez, may appear as an indicator of approaching change.

From the application of the above list of elements to post-tonal music, it may be concluded that the post-tonal cadence, even in the absence of a hierarchy of key areas, owes much to its tonal exemplar. Due to the rather traditional nature of the musical elements being considered as well as to the acknowledged artistic heritage of both works under scrutiny, the retention of the established term *cadence* seems utterly appropriate for the purposes of this study. The body of this work primarily concerns Messiaen's *Île de feu I* and the first movement of Boulez' *Première Sonate*. In order to give a more complete sense of the attributes of post-tonal cadences, common-practice examples exhibiting characteristics corresponding to those under discussion will be examined. Additionally, it should be said that the works studied here both draw heavily upon the heritage of Debussy and Stravinsky; the compositional innovations of both masters laid necessary foundations for Messiaen and Boulez. Specific stylistic relevancies are noted throughout this study; Boulez' *Notes of an Apprenticeship*, particularly, reveals a certain

veneration for Debussy's breaks with tradition in the areas of harmony, piano writing, color, and orchestration. It is interesting to note that Boulez holds in high esteem Debussy's refusal to adhere to tradition:

> [Debussy] rejected the heritages and followed a dream of vitrified improvisation [...] in his eyes, form was never a given thing [...] He had only disdain for the architectural monument, preferring structures mixing rigor and free will; with him, the words, the keys – all scholarly apparatus – lost their sense and pertinence. Even if one expands the extension of the usual categories of an exhausted tradition, it cannot be applied to his work.[8]

The "mixing of rigor and free will" conjures notions of Boulez imposing the rigor of the twelve-tone system on, for instance, music with no time signature. This, at least, is the case in his *Première Sonate* as well as in Messiaen's *Île de feu I.* Boulez continues:

> [...] Before the simplistic solution of the barred measure, men were preoccupied with coordinating in coherent fashion the rhythmic data of music as much as the harmonic and the contrapuntal. [...] It is time to adhere to such a logic [...] to liberate rhythm from being [...] an expression of polyphony and move it up to the rank of a principal factor in the structure by recognizing that it can preexist polyphony. [9]

Boulez, himself preoccupied with rhythm as he prescribes, makes reference to Debussy's rhythmic "will toward mobility;" this, like his rejection of harmonic hierarchies in fixed functions, caused Debussy to "rethink all aspects of musical creation." [10] In general, Boulez' writing draws upon Debussy's mainly in the sense of a free and fairly unstructured metric plan; as for Stravinsky, Boulez finds that the simplicity and manageable nature of the Russian's tonal materials allow for a "sharper rhythmic experience," [11] and that Stravinsky showed great innovation in his establishment of "interferences with symmetries of placement." [12] Boulez considers that the superimposition of symmetry and asymmetry – both in small-scale rhythmic

construction and in large phrasal conceptions – constitutes an ingenious kind of motivic development. In his discussion of the refrains and coda of Stravinsky's *Danse sacrale*, Boulez draws attention to their "monorhythmic" construction: " [...] a single rhythm governs what should strictly be called harmonic verticalization, not polyphony." [13] While Boulez does not use this "harmonic verticalization" in the *Première Sonate*, his observation applies equally and strikingly to a number of sections of Messiaen's *Île de feu I*.

This study focuses on music of Messiaen and Boulez for a number of practical reasons: firstly, the selected pieces contain sections of cadential difficulty – offering interest as well as practicality, for many post-tonal works are problematically unconventional – while still providing a modicum of formal and phrasal consistency. This dissertation is intended to be useful to those studying works from many styles, not only those styles which yield easily to the arguments put forth herein. Secondly, while firmly beyond the tonal V-I, the pieces chosen here for careful study usually do not exhibit such stylistic or structural foreignness that a cadential analysis cannot follow from the same basic tenets as those governing tonal music. Many post-tonal cadential gestures derive directly from these. Thirdly, music of neither Messiaen nor Boulez nears the point at which cadences become totally unrecognizable, musically irrelevant, or nonexistent. We are left, then, with the task of identifying meaningful ways in which to understand these post-tonal pieces through the cadences and other gestures within them.

Chapters Two and Three discuss, respectively, Messiaen's *Île de feu I* and Boulez' *Première Sonate*, first movement. After an overview of the music's large-scale workings, each chapter proceeds analytically, offering musical examples from the scores

to demonstrate the cadential factors at work. Non-cadential moments are also examined as expedients for distinguishing between cadences and the abovementioned and generally unanticipated non-cadential endings that sometimes appear.

For the analyst, this work proffers a definition of the post-tonal cadence and a starting point for the theorizing of musical boundaries and grouping in the absence of clear harmonic information. For the performer, the greater need is to come away with a collection of cadential indications, the recognition of which may be applied in practice and performance to lucidly convey the broadest range of interpretations.

Endnotes

[1] Regarding tension and resolution, Siegfried Schmalzriedt ("Kadenz:" 20) quotes Stockhausen as considering that the principle of cadence concerns the connection of simple and complicated structures. Motion from simple to complicated results in tension, which motion from complicated to simple leads to resolution. The portion of Schmalzriedt's article dealing with cadences in post-tonal music quotes briefly a number of composers, Stockhausen and Lachenmann included, who have interpreted the meaning of cadence in non-tonal music.

[2] Janet Schmalfeldt (1992), while dealing mainly with tonal music, provides a brief discussion of what she terms a "cadential idea." Because Schmalfeldt describes the cadential idea as a process which is identified at and by its onset, it corresponds roughly to cadential gestures and their definition through anticipation as discussed herein.

[3] The term *dénouement* is borrowed from the dramatic context; it is used here and elsewhere in this study to denote a period of decreased intensity (and, generally, decreased dynamic) after the climax of a section of music. The *dénouement* concludes calmly a phrase or other section, and can herald the approach of a cadence. Wallace Berry uses the term "recession" to describe the same phenomenon in his *Musical Structure and Performance*. Messiaen refers to a similar process as *désinence*, a falling away of intensity following what Messiaen calls the "central accent" of a phrase. The central accent here clearly takes place on the large chord in mm. 106-108; however, the presence of central accent and *désinence* does not guarantee the presence of a cadence.

[4] Wallace Berry illumines a related case in his *Musical Structure and Performance* (p. 70); he believes that the "overt deceleration in surface rhythmic values" is functional in indicating closure of a passage.

[5] James Tenney and Larry Polansky provide a theory of weighted elements (focusing entirely upon pitch and duration) as shaping musical perception, proceeding from the idea of music as a necessarily

hierarchical network of sounds. Their segmentation theory, though, fails to recognize the complex interactions of other musical elements and their bearing on the sensation of the events and time-spans they discuss.

[6] Hasty, Christopher F., "Rhythm in Post-Tonal Music: Preliminary Questions of Duration and Motion," p. 192. While Hasty refers to anticipation in his discussion of "motion toward," indicating the perceived approach of a structural completion, he regards anticipation as an unsatisfactory way in which to understand musical form as a whole.

[7] Regarding duration, Hasty (1997) points out that, while the qualities of a musical sound (i.e. timbre) may be known immediately after the initial attack, the quantities cannot. "What cannot remain fixed and what cannot be determinate while the sound is going on is its duration" (93). However, relevancies of past and future – that is, contexts – may contribute to the determinacy of these quantities during the production of a sound.

[8] Boulez, *Notes of an Apprenticeship*, p. 355. Note that Debussy's disdain for the "architectural monument" in music is in direct contrast to Stravinsky's ideal of "ontological time," in which the abstract "flattening" of musical form (referring in part to the use of such procedures as nonretrogradable rhythms and melodic and formal symmetry) is meant to resemble architecture and to render music less organic and evolving, more spatial and static. This geometrical, hard-edged aesthetic can be observed in many of Stravinsky's later compositions. Messiaen also recognizes a divide between time and temporal perception; he makes mention of psychological time as opposed to mathematical time (*Traité de rythme*, Volume I: 32).

[9] ibid., 144-45.

[10] ibid., 356.

[11] ibid., 75.

[12] ibid., 103.

[13] ibid., 124-25.

Chapter II
Messiaen: *Île de feu I*
Dichotomy, Reprise, Perpetual Variation

I.

The structure of Messiaen's *Île de feu I* is based largely upon the concept of dichotomy. Formally, two distinct musical ideas are projected, alternating in succession: the motivic theme with accompaniment ("subject") and the episodic departures from that theme ("episodes," to continue with the appropriation of fugal terminology). In analyzing themes and periods, Messiaen uses a tripartite scheme of *anacrouse - accent - muette* or *désinence. Désinence* – which corresponds roughly to the term *dénouement* used herein – is used by Messiaen after the central accent of a phrase to denote a subsiding of tension including two or more attacks; *muette* functions in the same manner, but refers to a subsiding of only one attack after the central accent. An example is shown in the *Traité de rythme* [1], in reference to the "expressive" passage of measures 7-9.

Messiaen's analysis identifies a theme (which is here called the "subject") followed by three variations and a new theme consisting of two periods (mm. 25-27 and 28-29, each of which is then reprised (mm. 30-32 and m. 33 to the first beat of m. 35). Within this framework, several additional contrasts become clear as the piece proceeds. These include modal (diatonic vs. pentatonic), intervallic (tritone vs. perfect fourth/fifth), textural (hands together vs. hands separate), registral (treble vs. bass), and other pairs of warring elements which combine to produce dramatic effects on cadential processes and their extensions.

For their part, cadences articulate the form of the piece, especially through the first subject statements and episodes as shown in Table 1. In his own analysis of *Île de*

feu I, Messiaen divides the sections of the piece very much as they are shown in Tables 1 and 2 below. Here we note a few mentions of Messiaen's analytical terms. His discussion refers to the "subject" as the theme and subsequent variations, and the episodes mentioned in this text are called *traits*, meaning musical lines or passages (with the implication that the passages are full of motion). Measure 35 is a "very abridged" reprise of the first variation (mm. 5-6), and mm. 36-39 contain a *trait en éventail* (a fanned-out passage, referring to the contrary motion in the two hands, measure 36) stemming from the material of the third variation (mm. 20-22). Table 1 lists the measure numbers of the piece's five cadences and those of the ten indicators contributing to each.

Table 1. Cadential Moments in Messiaen, *Île de feu I*

m. 2	Duration, contour, centricity, activity level, motivic repetition, dynamics, articulation.
m. 4	Duration, silence, contour, activity level, dynamics, texture/color, articulation
m. 6	Silence, centricity, activity level, motivic repetition, articulation.
m. 22	Duration, contour, centricity, activity level, motivic repetition, tempo, dynamics, articulation.
m. 39	Duration, silence, contour/register, centricity, activity level, motivic repetition, tempo, dynamics, texture and color, articulation.

Table 2. Formal divisions of Île de feu I and their cadential articulations.

While it pointedly presents contrasts, *Île de feu I* has apparently little to do with synthesis; contextually, then, it is surprising that the piece contains several sectional and cadential extensions as well as phrasal elisions. As the form becomes less obvious throughout the piece, the cadences become less frequent, and abrupt stops appear instead. For example, in mm. 1-2, Messiaen draws attention to the *terminaison* of the theme on the accent ***sff***, followed by a *muette* on the same note, E, at the dynamic level ***f***. [2] Although cadences are not specifically mentioned, Messiaen's language is less strong in discussing later sections of the piece: measure 27 "concludes" the first period of the new theme, measure 28 "goes toward" the C-sharp in the second period of the new theme, and measure 35 "reserves" the "conclusive" low E for the final section. A few cadential cases, then, are difficult to classify with finality. At the conclusion of this chapter, they will be discussed at length along with supporting evidence for diverging interpretations. In part, the ambiguity accompanying these moments stems from what Messiaen, in his own analysis of rhythm and motivic repetition, calls "la variation perpétuelle." While Messiaen does not comment specifically on this phenomenon in his analysis of his own *Île de feu I*, he refers to rhythm as deriving from the "undulations of the waves of the sea;" as such, rhythm

> [...] repeats itself always with new variations; that is to say, to the infinity of irregular periodicity. Neither the repetition of the same, nor the alternation of the same with the other: but the succession of the same which is always other, and of others which are always related to the same: this is *perpetual variation.* [3]

While perpetual variation clearly implies a certain continuity among the varied sections, the finishing of one variation and the moving on to the following period (as Messiaen names the sections of *Île de feu I)* [4] also entail a degree of separation between

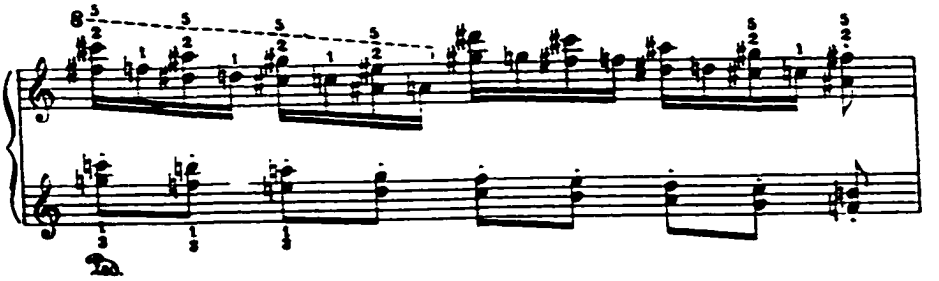
those variations. The simultaneous separateness and relatedness of certain musical sections in the piece, then, could quite plausibly render difficult the search for unambiguous cadences in those areas.

II.

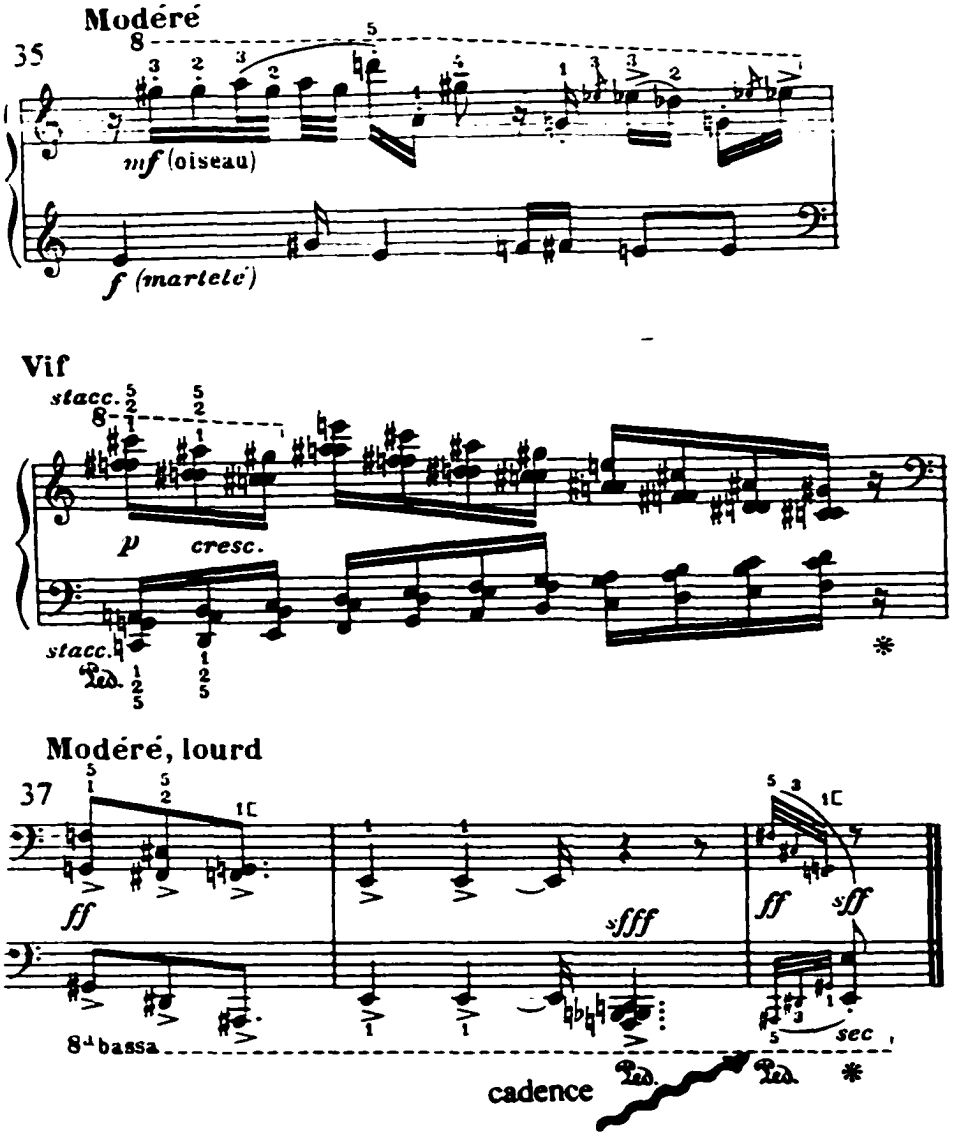
We begin our discussion of specific cadences and their indicators with the final cadence of *Île de feu I*, as it constitutes the least controversial of the five main articulative points of the piece. This is the area of *Île de feu I* which happens to involve some measure of synthesis, combining as it does various elements incorporated previously as dichotomies.

As shown above in Figure 1, m. 35 begins a five-measure coda; it comprises a statement of the theme which is truncated by the appearance of contrasting material. Measure 36 briefly recalls the tempo, pitch, and dichotomy of registral direction of an earlier passage: measures 12-19. The most germane similarities are the exact pitch recollections from the right hand of m. 14, as shown below in Examples 3a and 3b.

Example 3a. *Île de feu I*, measure 14. Pitch precedent anticipating m. 35.



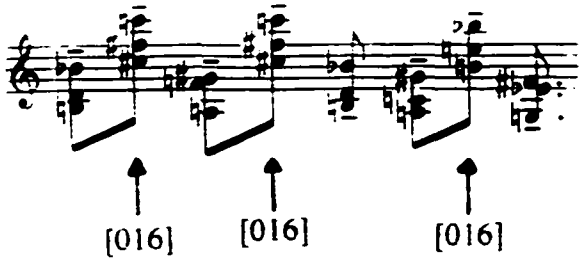
Example 3b. ***Île de feu I,*** **mm. 35-39; recalled pitch material in measure 36.**



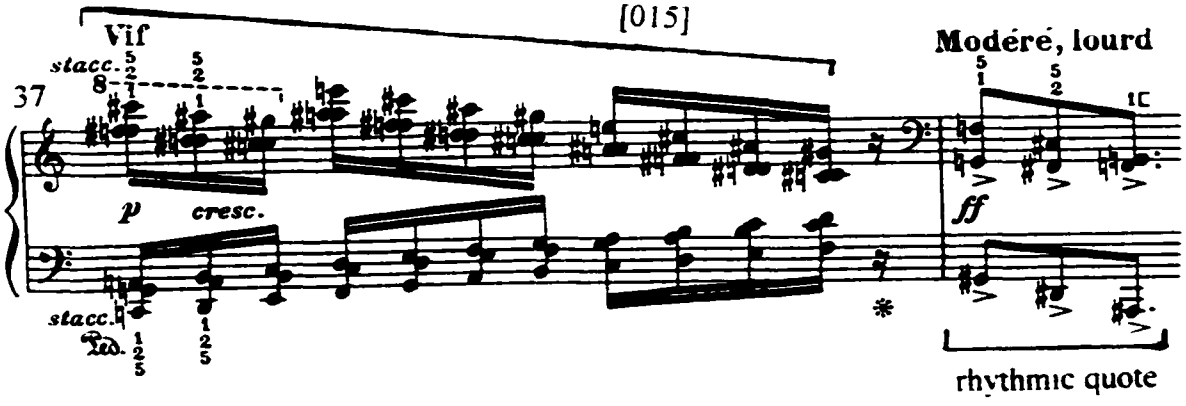
Like measure 36, the following subsection (mm. 37-38) is representative of earlier material, combining the tempo and rhythm of the final three chords of m. 10 (see Examples 4a and 4b) with the register and accented articulation of a long-awaited double E which follows in m. 38 (see Example 5b). This five-bar miniature, crowned by a decorated and exclamatory final octave E, is the epitome of the coda; the presentation of tightly controlled closing material, followed by the long-delayed double E [5] and a final

gesture, recollects in units of one contracted measure each the speeding of harmonic motion toward an easily anticipated cadence. Every one of the ten cadential predictors outlined herein takes part in the construction of this final cadential process; especially notable is the "rhythmic dissonance" [6] produced by the low cluster, ***sfff***, recalling at the close of m. 38 what was introduced as the first notable pause in motion of the piece – in m. 1, just prior to the first twice-articulated E (see Examples 6a and 6b).

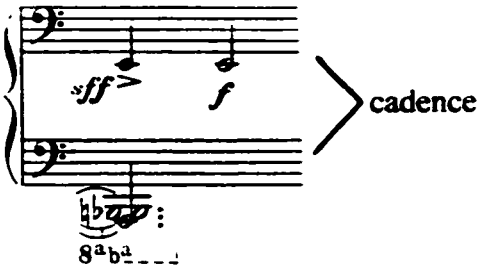
Example 4a. ***Île de feu I,*** **measure 10, right hand; original [016] collections.**



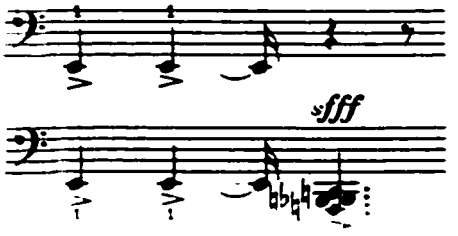
Example 4b. ***Île de feu I,*** **mm. 37-38; restructured [015] collection followed by rhythmic quotations from measure 10.**



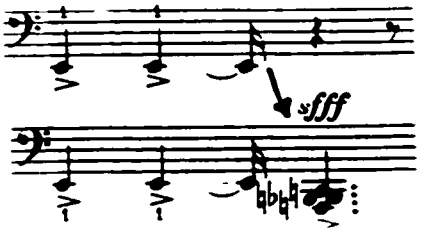
Example 5a. ***Île de feu I,*** **measure 2; closure of original subject statement with double articulation of the pitch E.**



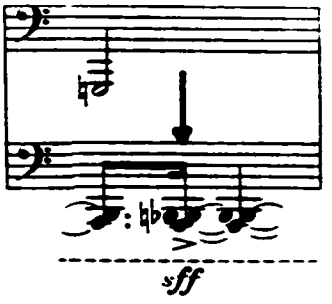
Example 5b. ***Île de feu I,*** **measure 38; recollection of double E from m. 2.**



Example 6a. ***Île de feu I,*** **measure 38; rhythmic dissonance noted on score.**



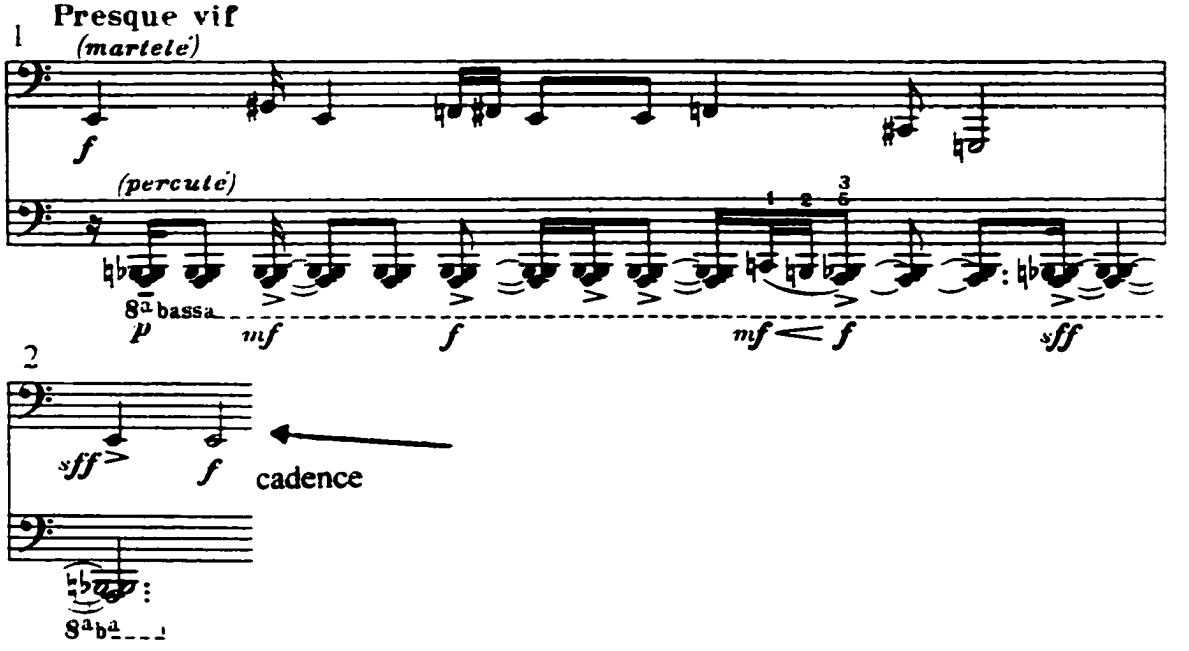
Example 6b. ***Île de feu I,*** **measure 1; rhythmic dissonance noted on score.**



Supported by numerous clear quotations of earlier material, the coda beginning in measure 35 leads immanently to a powerful final cadence. Example 4 illustrates the place of pitch and *contour*, Example 5 that of *centricity* and *articulation*, and Example 6 that of *rhythm* in the making of this cadence. Each of the three examples shows the presence of *motivic* associations, lending strength to the anticipatory weight of the cadence to follow. [7] *Duration* and *activity level* are reflected in the rhythmic dissonance shown in Example 6, and *silence*, while in this case a retrospective one, confirms that an ending has, in fact, taken place in measure 39. *Dynamics*, increasing in tandem with intensity from measure 36, and *texture and color* obviously present themselves as cadential indicators through the occurrence of precise pitch quotations – one certain way to evoke a precise color – and the recall of registral dichotomy in the coda. While the use of each of these devices contributes greatly to the listener's ability to anticipate the cadence in measure 39, it is important to note that their inclusion does not, in itself, make the cadence viable. Certain cadential factors may appear in any context, but the identification of a cadence must be made from a more intuitive stance; a successful cadential analysis should fall into place once the viability of a cadence is determined by instinct.

The first three cadences of *Île de feu I* embrace, perhaps, another of the more indisputable sections of the piece. Occurring in quick and regular succession, they clearly distinguish the first two statements of the subject from the episodes which intervene. The opening two measures are shown in Example 7, with the subject in the right hand:

Example 7. ***Île de feu I*****, mm. 1-2; subject in right hand.**

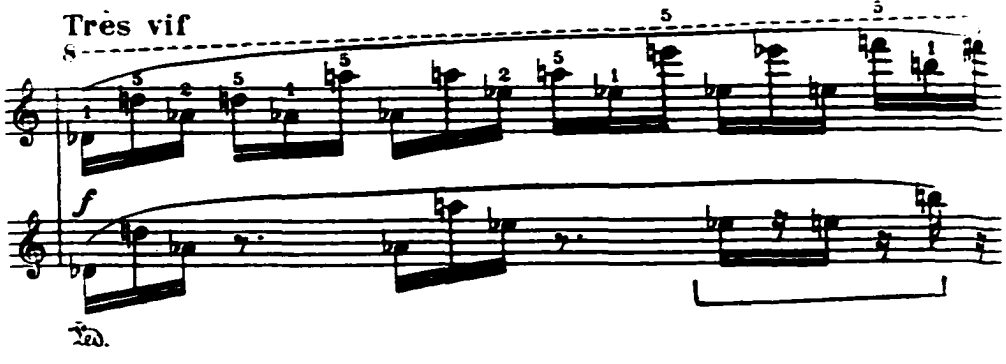


The two measures that form the opening of *Île de feu I* and its first statement of the subject illustrate a form of cadence which can be anticipated by means of a change in rhythmic pattern or by a change within that pattern. Unlike much pre-cadential rhythmic motion, the left-hand formation in this case slows drastically rather than speeding toward the finish. Despite the difference in means, the result of increased tension is similar; an approximate pattern of values (between one and six thirty-second notes) has been established, and the sensation of motion that it provides is expected to continue. The dramatic increase in the left-hand note values (what Messiaen terms a *crescendo of value*) proceeds as follows, counted in 32nd notes: 2- 4- 6- 4- 6- 2- 6- 1- 1- 14- 34. The composite rhythm formed by the attack points in the two hands combined also strengthens the sense of approaching change.

A strong part in the cadential feeling of this phrase is also played by the establishment and twice-articulated return of the centric pitch E in the right hand, at the close of the subject; the importance of that pitch and its double statement retains weight throughout the piece, as is already apparent from our study of its final few measures. Dynamic considerations in the first measure of *Île de feu I*, in terms of both a crescendo and increasing terraced dynamics, must be taken into account as well; they indicate an increase in intensity which functions in this case as a cadential indicator, piquing the listener's interest as the rhythmic articulations of the accompaniment grow less frequent.

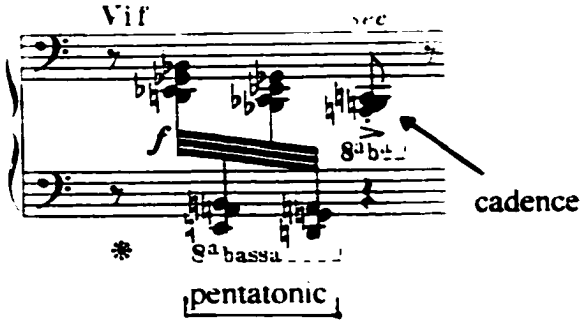
The third and fourth measures of *Île de feu I* – the first episode – are a pairing of dichotomous extremes. The third measure is entirely slurred and continuous; it is also monophonic, with subtle textural reinforcements (in the guise of left-hand octaves) lending rhythmic drive to the line. It moves logically and predictably toward its goal near the upper reaches of the keyboard, perceptibly increasing in intensity as the left hand articulation effects a hemiola (see Example 8).

Example 8. *Île de feu I*, m. 3; hemiola marked in left hand.



The fourth measure is opposed to the third in nearly every manner. It is disjointed, both within itself and in contrast to what precedes it. Each chord contains three or four pitches, and each chord is articulated singly. It reaches into the depths of the lowest notes of the piano after erupting from an eighth rest at the outset of the measure. The pitches are less obviously organized than those in m. 3, although those in the left hand belong to the pentatonic mode (see Example 9).

Example 9. ***Île de feu I*****, m. 4; pentatonicism in left hand marked.**



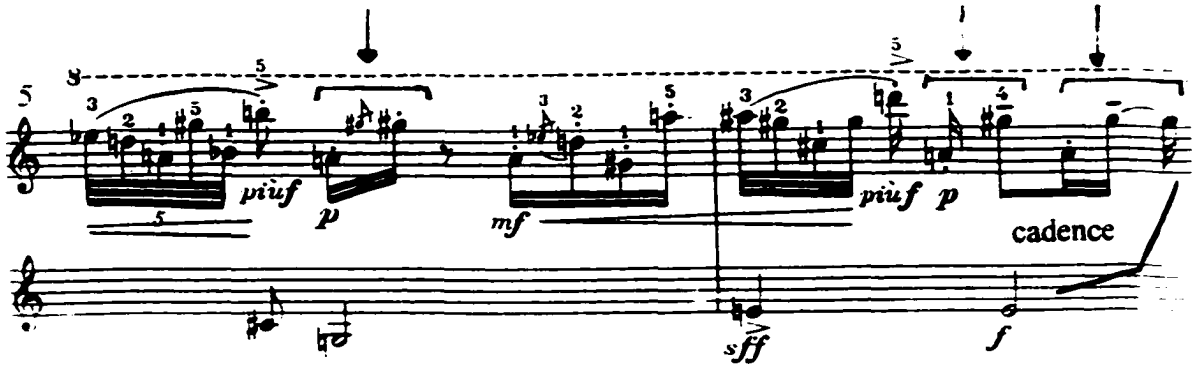
Despite the pentatonic construction of measure 4, the tone color and resonance of the piano in the chosen range make these pitches audibly indiscernible.

The high contrast between measures 3 and 4, notably the articulation and the upward motion followed by a brief rest and compelling downward finality, implies nothing as strongly as an antecedent-consequent pair. As well as exhibiting extreme differentiation between themselves, the two measures show very little resemblance to what precedes or follows them: as an episode between two subject statements, they are set apart from their larger context. Thus, the analytical listener quickly groups the two.

The wisdom of automatically assigning cadential status to the end of a closed subsection of music has already been questioned; however, the antecedent-consequent relationship between measures 3 and 4 is strong, confirmed by its distinction from the surrounding sections and the sense of rise and fall that has historically borne association with the completion of a cadentially concluded phrase. Seven of ten cadential considerations are present, as well, and the balance is tipped in favor of naming m. 4 cadential.

Measures 5 and 6, the second subject statement, bear unmistakable similarity to measures 1 and 2, even upon a first hearing.[8] The *martelé* direction is retained for the melodic line in m. 5; the change in accompaniment from the deep *percuté* in the left hand of m. 1 to the inimitable *oiseau* in the right hand of m. 5 does not distract from the distinctive refrain which will link each successive section of the piece. Clearly, the cadence of m. 6 is anticipated not only in its own right but through recognition of its anticipated end as heard at the piece's opening. The clearest cadential marker here is certainly motivic and phrasal repetition. The upward contour of the birdsong as the subject closes renders this cadence somewhat weaker than that in m. 2, and yet its identity as a cadence is indubitable – in the main because of the singular execution of the subject, shown in Example 10, in a register distinct from simultaneous activity. An interesting detail is the pitch and rhythmic repetition of the short birdsong motive marked at the end of measure 6 below.

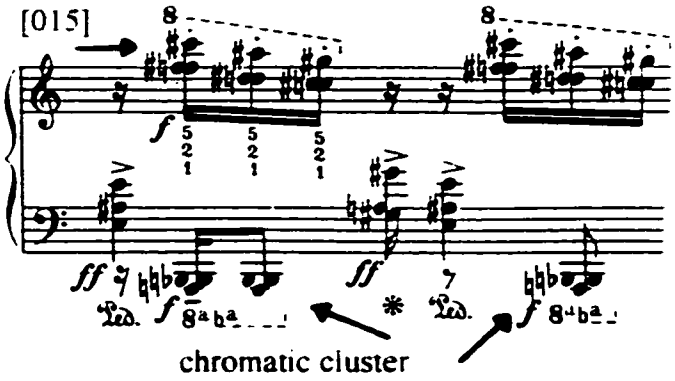
Example 10. ***Île de feu I*****, mm. 5-6; brief motivic repetition marked in right hand.**



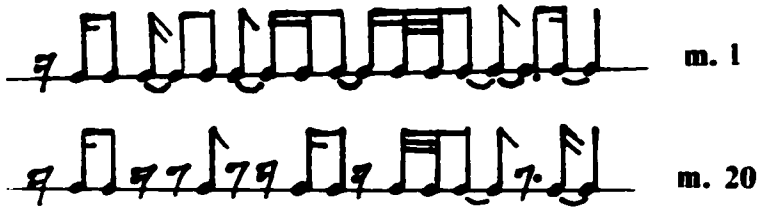
The remaining cadential gesture of *Île de feu I* occurs in the span between measures 22 and 24. Let us examine the development of this section from its origin at measure 20.

With the commencement of measure 20, the subject reappears and is extended, restated, and developed constantly for the remainder of the piece (with the exception of mm. 36-37 in the coda). Significantly, the subject statement beginning in m. 20 involves accompaniment in both the upper and lower registers, whereas previous statements are accompanied in only one register. Both hands engage in the accompaniment here as well as in the melody of this registrally enlarged statement, which is in many ways a culmination of dichotomous extremes. Not only are the two registral extremes combined, but, as shown in Example 11a, the pitch class set [016] from measure 10 appears here, slightly adjusted (as in measure 14) to [015] (see pp. 17-18). For the first time, this occurs in conjunction with the chromatic cluster – much of it even rhythmically intact directly from measure 1. Example 11b points to the retention of the initial rhythm in the lowest of the three voices of measure 20.

Example 11a. *Île de feu I*, opening of m. 20. Return of pitch class set [016] as [015], chromatic cluster.

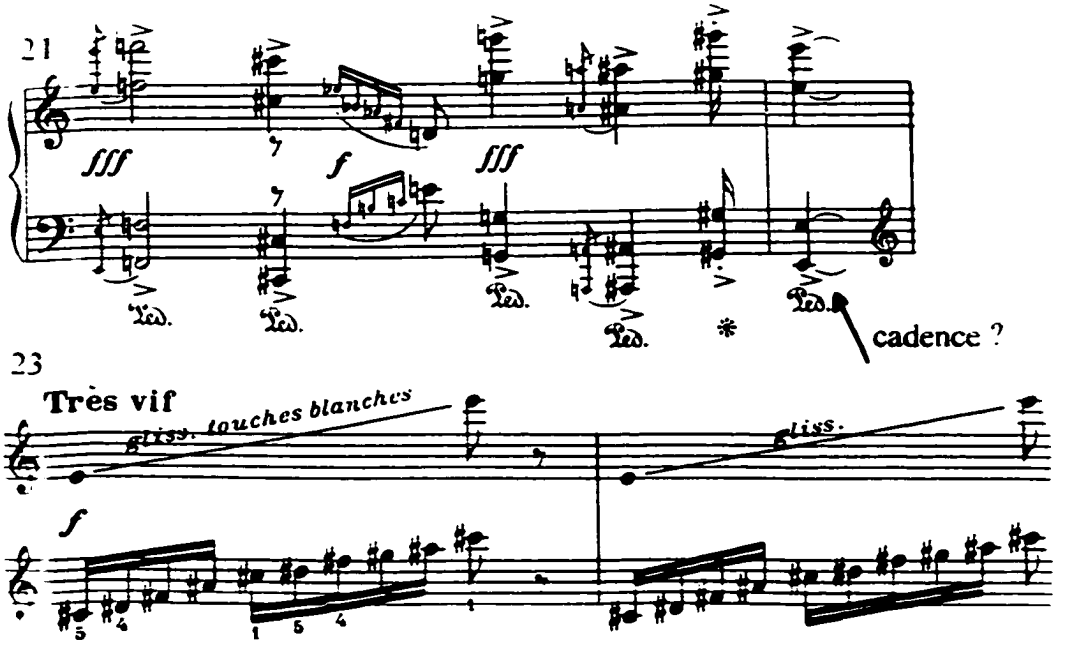


Example 11b. Rhythmic reduction of bass accompaniment, m. 20, as compared with m. 1.

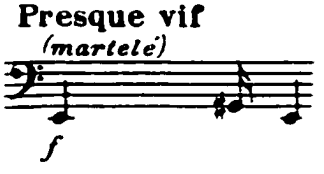


In many ways, measure 22 presents the ideal moment for a cadence. Several of the cadential indicators are strongly present; tension is high by virtue of dynamic level, unusually protracted durations in m. 21, and the centricity of the pitch E (strengthened further by its familiar precedent of a sixteenth-note G#, taken from the second and third pitches of the piece [see Examples 12a and 12b]). In addition, a new rhythmic drive and a new tempo in m. 23 retrospectively support cadential perception. All of these may be seen in Example 12a.

Example 12a. ***Île de feu I,*** **mm. 21-24; cadential supports of drive and tempo.**



Example 12b. ***Île de feu I,*** **start of m. 1, right hand; precedent for G#-E descent in mm. 21-22.**



Despite the factors implying cadential motion toward m. 22, the case for a cadence at this exact point is ambiguous; it is especially weakened by the pedal marking in m. 22, indicating that the pedal should be held until the close of m. 24. This certainly implies continuity between mm. 22 and 24, which contradicts the notion of m. 22 as the close of a section.

One possibility, then, is the consideration of mm. 23-24 as a cadential extension, linking the subject statement of mm. 20-22 with the resumption of the theme in m. 25. Support for this interpretation includes the fact that all three previous subject statements

conclude with two successive articulations of the centric pitch E. Measure 22 contains only one (refer to Example 12a); with the addition of mm. 23 and 24, the E can be considered as thrice stated, providing even a stronger basis for finality and, thus, cadence.

On the other hand, mm. 23 and 24 in two ways move against a sense of finality or resolution: firstly, pentatonicism appears in the left hand, weakening the position of the tonicized pitch E and ending each measure not on E alone but on C# as well (see Example 12a). In *Île de feu I* as a whole, the combination of these two pitches has no precedent for producing cadential resolution. Secondly, the upward motion of the twice-stated gesture is not consistent with the strong precedent for cadences in this piece as phenomena concluding in a low register. Moreover, invoking activity level as a cadential consideration, the very audible change from prolonged single durations in mm. 21-22 to a clearly pulsed *Très vif* in m. 23 weakens the sense of continuity or extension here.

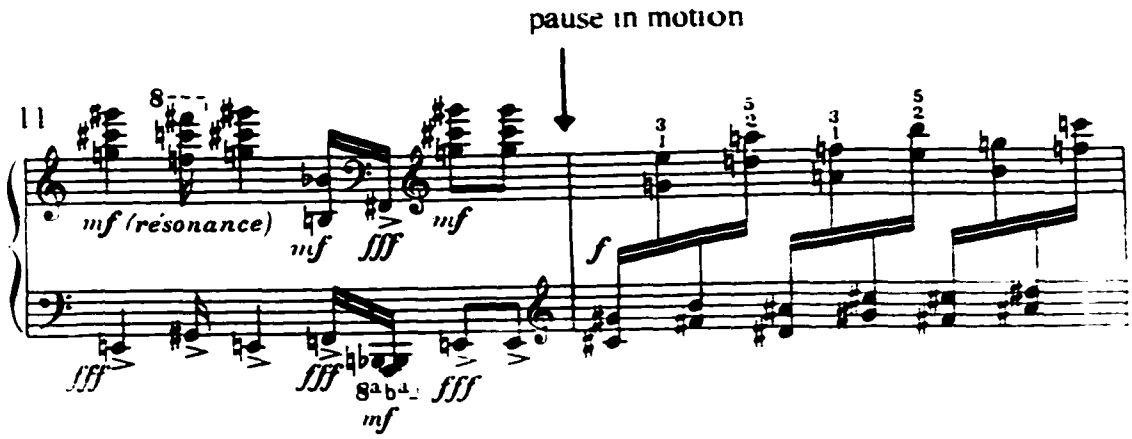
Due to their numerous internal contradictions, mm. 21-24 are cadentially difficult to classify with authority. Measures 23-24 share crucial elements with the musical material both preceding and following them (not least, a reinforcement of the held left-hand E in the right-hand glissandi); perhaps a third solution is to consider them not as an extension, but as a transition bridging two statements of the thematic subject.

All things considered, despite the contraindications of the pedal marking, the lack of a twice-articulated E in m. 22, and the viability of various other options, the cadential strength of measure 22 (given a convincing performance) may well be judged sufficient; it is, therefore, included in the list of five cadences in this piece.

III.

Île de feu I contains, as has been mentioned above, several points of formal articulation which do not qualify as cadences. In general, these pauses lack cadential status because of brusque, mid-phrase interruptions of material, making anticipation of the sectional ending impossible. Retrospective phenomena such as the pause in motion between measures 11 and 12 present a worthwhile case for study.

Example 13. ***Île de feu I*, mm. 11-12; pause in motion illustrated.**

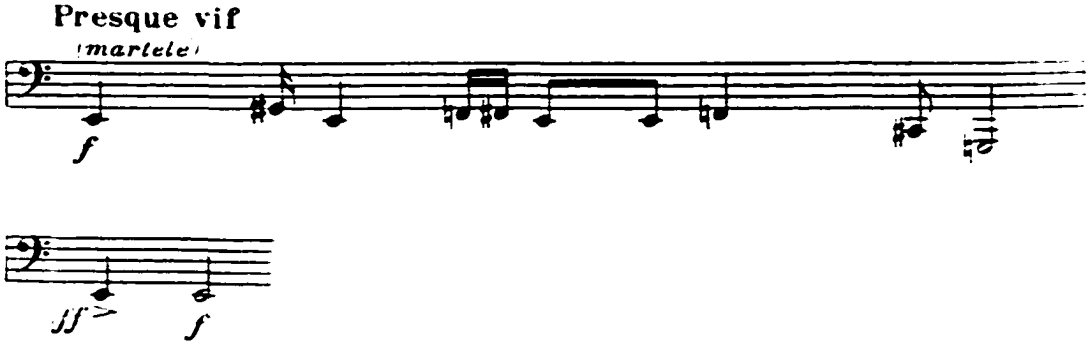


During the reintroduction of the thematic subject in m. 11, each of four rhythmically identical voices combines to produce approximately the first half of the opening motive of the piece, directly after which a period of frantic motion ensues. As the remainder of the motivic theme is not heard and is replaced without warning with material of a different character, a retrospective stop is perceived. Measure 11, though, will be shown to represent the potential complexity of the intuitive cadential and sectional decisions that are constantly taken by the ear of the performer as well as that of the listener. Despite the impossibility of anticipating a cadence at the end of m. 11, there

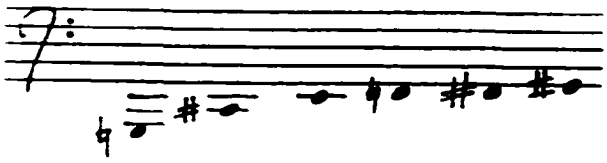
are several compelling pitch-related elements which combine to make the case noteworthy.

The passage is resonant with the vertical interval C# to G# in the uppermost voices of the right hand (see Example 13). This perfect fifth is part of a careful plan in a number of ways. First, the thematic subject of *Île de feu I* consists of five pitches ascending chromatically from E to G# and a sixth pitch, C#, as shown in Examples 14a and 14b below. This series of six pitches is rich with possibilities for intervallic combinations, one of which is the distinctive perfect fifth and its counterpart, the perfect fourth.

Example 14a. *Île de feu I*, subject melody.



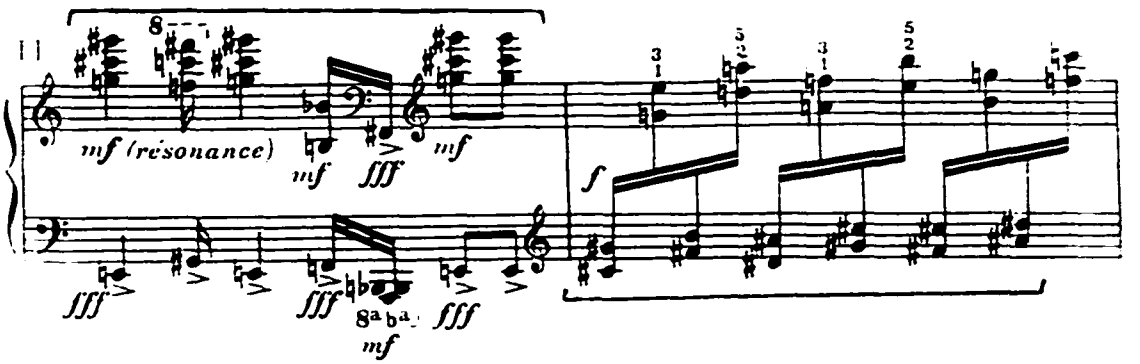
Example 14b. Subject pitches in ascending order.



Were the pitch C# not included in the motive, the perfect fourth and fifth would be, at least horizontally, disallowed. (The remaining pitches used in the motive – E, F, F#, G, and G# -- cannot constitute a perfect fourth or fifth in any combination. Therefore, the addition of C# makes possible a new set of horizontal intervallic combinations.) However, the C# is not used to create perfect horizontal intervals; in fact, none exists in the motive. The pitches F#, C#, and G# are kept at a distance from one another and are used sparsely. The perfect fourth and fifth are studiously avoided not just at the outset, but throughout much of the first nine measures of the piece. There are several brief moments during which Messiaen introduces fourths and fifths;[9] perfect fifths also appear in the left hand of m. 4, but like those formed between the left and right hands of m.1, the pitches are too low to be discerned.[10] As we shall see, the very limited use of the perfect fourth and fifth is temporary; these open intervals explode after the initial nine measures of the piece.

When the theme begins in measure 11 with its tonicized E, it is colored by a manifest fifth in the uppermost voices of the left hand. The juxtaposition of the centric pitch E and the newly trumpeted perfect fifth is indicative of a turning point in the harmonic language of the piece. While, again, there is no indication of a cadence at this point, the fifth's shift toward prominence supports the case for a phrase overlap: the repeat of the C#-G# verticality as the first sound of m. 12 is striking in several senses. The placement of the fifth in a centric context with the E throughout m. 11 is followed by a move to a central octave in m. 12, voiced alone and with pedal, as shown in Example 15 below. [11]

Example 15. *Île de feu I*, m. 11-12; registral shift of perfect fifth/fourth marked.



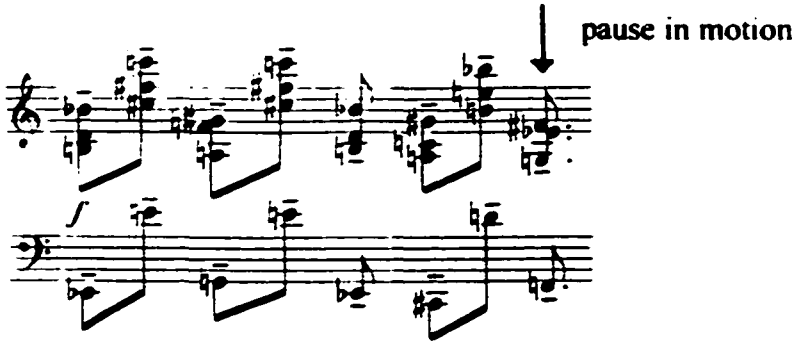
The new voicing of the perfect intervals holds significance, especially in measure 12, which is singularly devoid of vertical tritones and consists almost solely of fourths and fifths. The combination of shifts (including expressive indications from *très modéré, lourd* in m. 11 to *très vif* in m. 12) and continuities (primarily in the arena of intervallic colors), in the absence of convincing cadential signs, indicates an overlap.[12]

Measure 10 also holds intervallic significance, including not only transitional motion toward the perfect fifth but a harmonic reference as well. In this case, several cadential indicators are present; while it is dubious to name m. 10 cadential, it is indeed possible due to the strength of a break in the rhythmic pattern and to the abovementioned harmonic function.

A pattern of seven successive eighth notes (preceded by three measures of slightly faster eighth notes of similar value to the ear) is broken at the end of m. 10. Even more significant than the pattern break is the fact that the eighth and final chord of m. 10, a dotted eighth note, is elongated rather than cut short of the expected value. This jarring

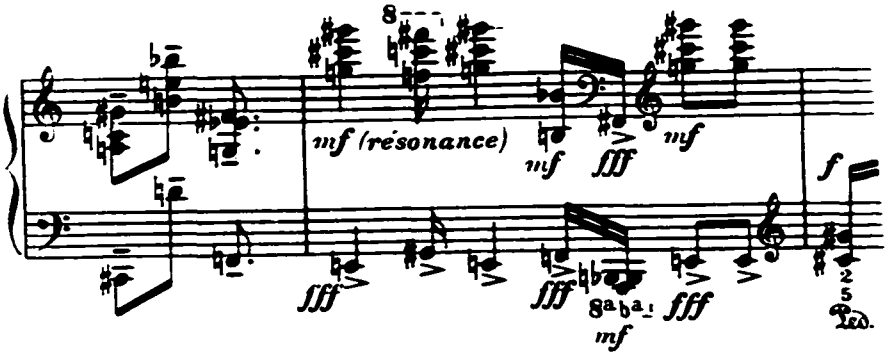
effect, illustrated in Example 16, momentarily leads the ear to believe that the section has ended and that closing material or transitional material will follow.

Example 16. ***Île de feu I*****, m. 10; lengthened value of dotted eighth shown.**



Instead, the opening motive returns at the highest dynamic level yet encountered and without accompaniment (as discussed in note 11 to this chapter, the chords of the right hand function as overtone emanations due to the marking *résonance*); while the voicing in the right hand is imprecise, there is a strong harmonic component linking the final chord of m. 10 with the first chord of m. 11; as shown in Example 17 below, it is functionally not unlike an augmented sixth chord. Therefore, if one chooses to project a cadence here, the instability of the "augmented" chord necessarily connects measures 10 and 11; thus, the cadence would occur at the beginning of measure 11.

Example 17. Augmented sixth chord function, ***Île de feu I*****, mm. 10-12. Instability of chord connects mm. 11 and 12; possible cadential point at opening of measure 11.**

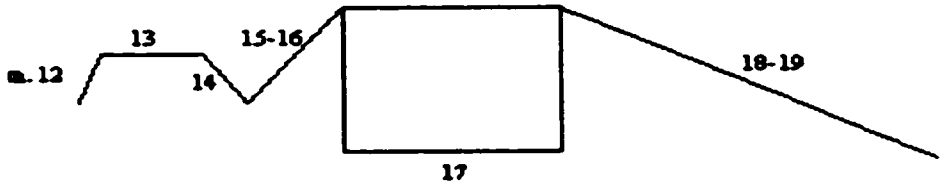


As the harmonic aspect of m. 10 contains a strongly forward-moving quality which can be anticipated by means of the break in rhythmic pattern, it is possible to call the progression a cadence; however, as the power of the cadence is largely retrospective (recognition of the voicing and pitches in the first chord of m. 11 with the accompanying *fff* in the left hand), this musical moment could also be interpreted as a non-cadence. In addition, we have explored the possibility of intervallic significance as indicative of a phrasal overlap. The prominence of the perfect fifth and fourth in *Île de feu I* has become manifestly clear in m. 10, in which six of eight chords contain the open intervals. Obviously, the intriguing features of the musical section comprising mm. 10-12 may engender conflicting cadential interpretations, any of which may be convincingly projected.

Measures 12-19 comprise the clearest episode of *Île de feu I* to delineate conflicting musical elements. The dichotomies expressed within this intense passage include rapidly ascending and descending motion; a number of modalities; horizontal and vertical intervals (realized in part by writing for hands together and hands separate); and, between the passage itself and the surrounding statements of the subject (mm. 11 and 20), metric regularity and irregularity. It may also be significant that this longest musical episode takes place precisely at the midpoint of the piece, finishing at the close of the nineteenth of thirty-nine measures (and within two seconds of the temporal midpoint in two very different recordings[13]). The patterns of opposing forces of direction, mode[14], and scoring for the two hands are shown in Examples 18-20; Example 21 illustrates the multi-modal synthesis of mm. 18-19, which involves references to diatonicism and

pentatonicism as well as to Messiaen's second and fourth modes of limited transposition (see Examples 19c and 19d).

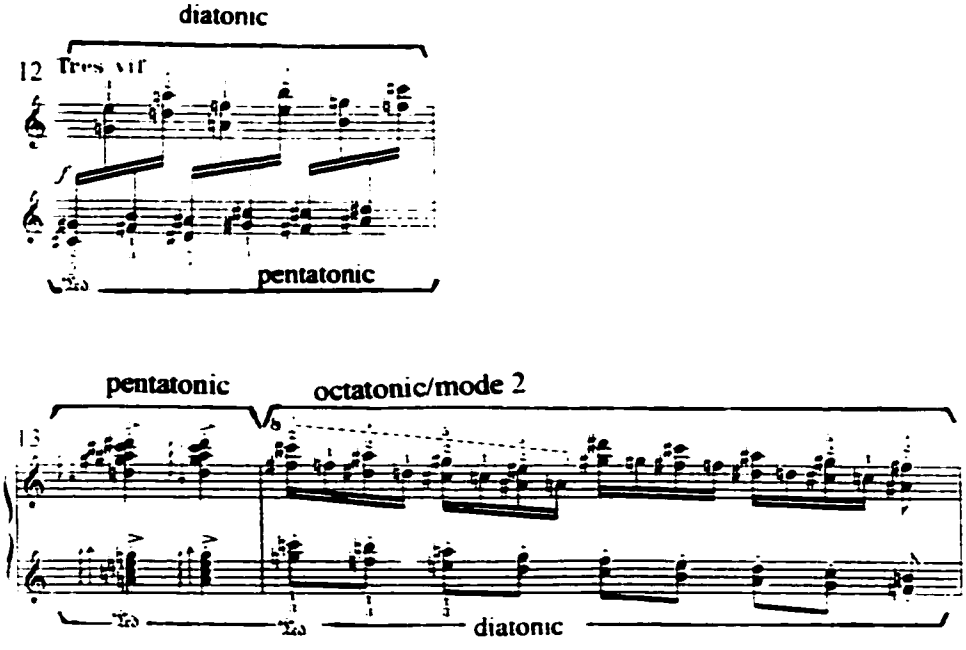
Example 18. Registral dichotomy as shown by pitch contour in mm. 12-19.



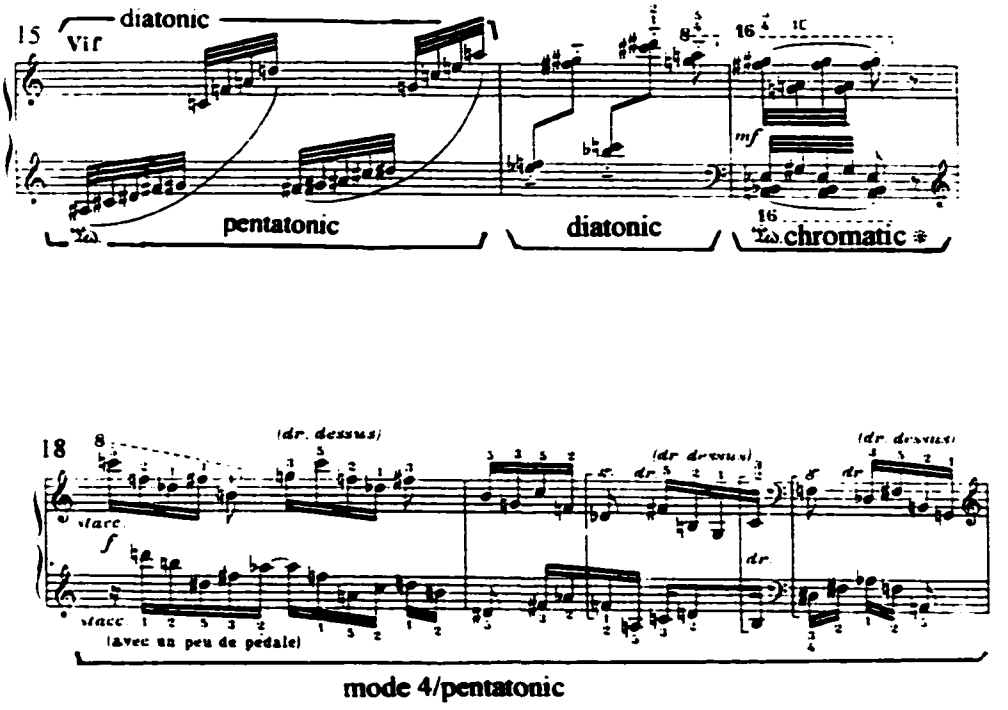
Example 19a. Modal dichotomy, mm. 12-19, as shown by oppositional writing in left and right hands moving toward synthesis in mm. 18-19.

	12	13	14	15	16	17	18	19
r.h.	Dia.	Pent.	Oct/ Mode 2	Dia.	Dia.	Chromatic	Mode 4/ Pent.	Mode 4/ Pent.
l.h.	Pent.	Dia.	Dia.	Pent.				

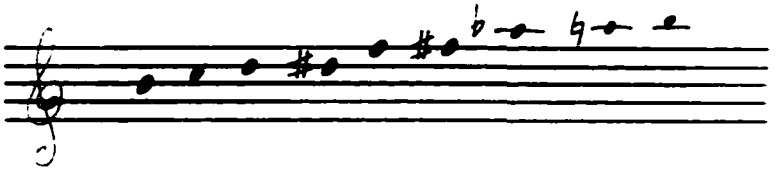
Example 19b. *Île de feu I*, measures 12-19; illustration of modal differences as shown in Example 19a (keeping in mind that the pentatonic scale is a subset of the diatonic scale).



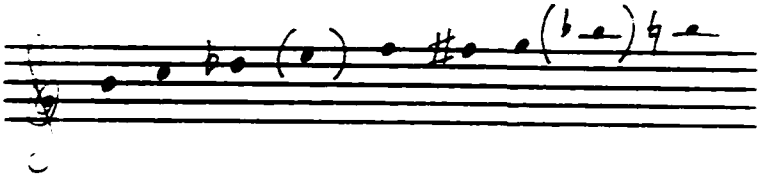
Example 19b continued.



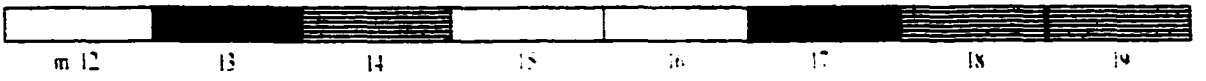
Example 19c. Messiaen's second mode of limited transposition as shown in left-hand pitches of *Île de feu I*, mm. 18-19.



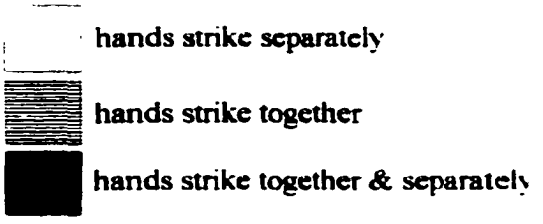
Example 19d. Right-hand pitches of *Île de feu I*, mm. 18-19. Pitches in parentheses exist as part of Messiaen's fourth mode of limited transposition, but are missing in the *Île de feu I* passage.



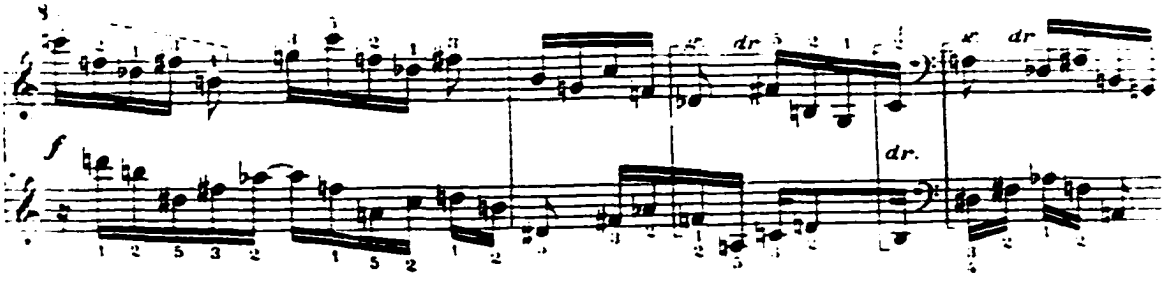
Example 20. Pattern of scoring, mm. 12-19, as illustrated by articulation of notes in the left and right hands together and separately.



Key for Example 20:



Example 21. *Île de feu I*, measures 18-19, representative of modal synthesis through the simultaneity of different scales.



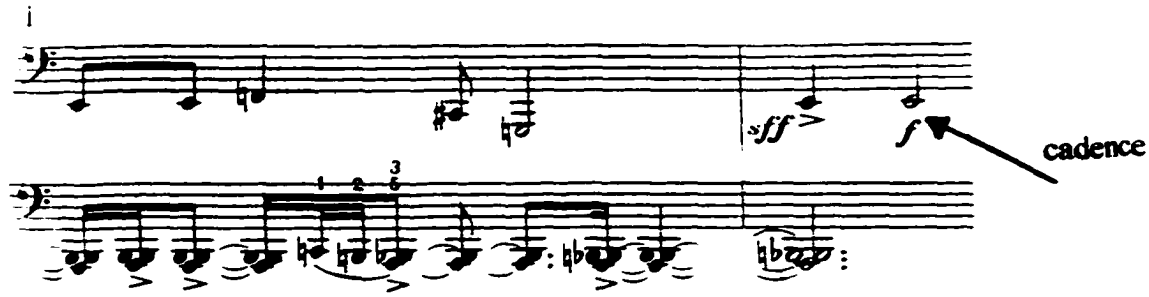
Despite its careful, central placement and its significant synthesis of modal dualities, the close of measure 19 of *Île de feu I* exemplifies the pause in motion which cannot be termed a cadence as it gives no indication of its approach. None of the change-oriented cadential predictors has a place in this passage; the length of the pattern (beginning in measure 18, four 𝅘𝅥𝅯 + 𝅘𝅥 in the right hand and five 𝅘𝅥𝅯 + 𝅘𝅥 in the left hand) is not sufficiently significant to invoke the concept of heightened tension by repetition or perpetual motion. Without clues allowing its anticipation, what appears afterwards to

have been a cadence – no matter how strong the contrast of material which follows – is not one at all. Rather than a cadence, it is simply a stop.

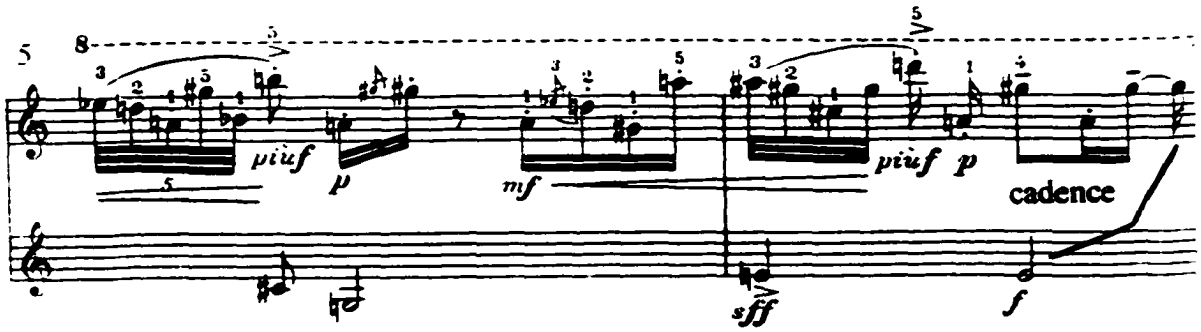
The approximately 40-second stretch of music extending from mm. 25-34 contains constant sixteenth notes in the right hand, and is quite clearly a section without internal demarcation. Proceeding opposite the lengthiest statement of the subject material, the running sixteenth notes are highly significant in terms of cadential process: unlike the accompanimental features of the presentation of previous subject statements, these sixteenths prevent a pause in motion from taking place. We observe in this section the intensifying power of perpetual motion.

The subject of *Île de feu I* contains periodic half notes. In the heavy, deliberate style of articulation prescribed in various ways throughout the piece (for example, *martelé*, *percuté*, and *violent*), the appearance of these note values during a subject statement does, generally, alert the listener to the possibility of approaching closure. However, in all cadences before measure 26 (which contains the first half note appearing in the subject in the section in question), the activity level in the accompanimental figure matches the larger durational value of the melodic line. In the passage beginning at measure 25, there is no opportunity for this agreement in activity level to take place; as a result, the perpetual sixteenth notes all but nullify the potential of the perception of a pause in motion. Examples 22a, 22b, and 22c compare the accompaniments of the three subject statements under discussion.

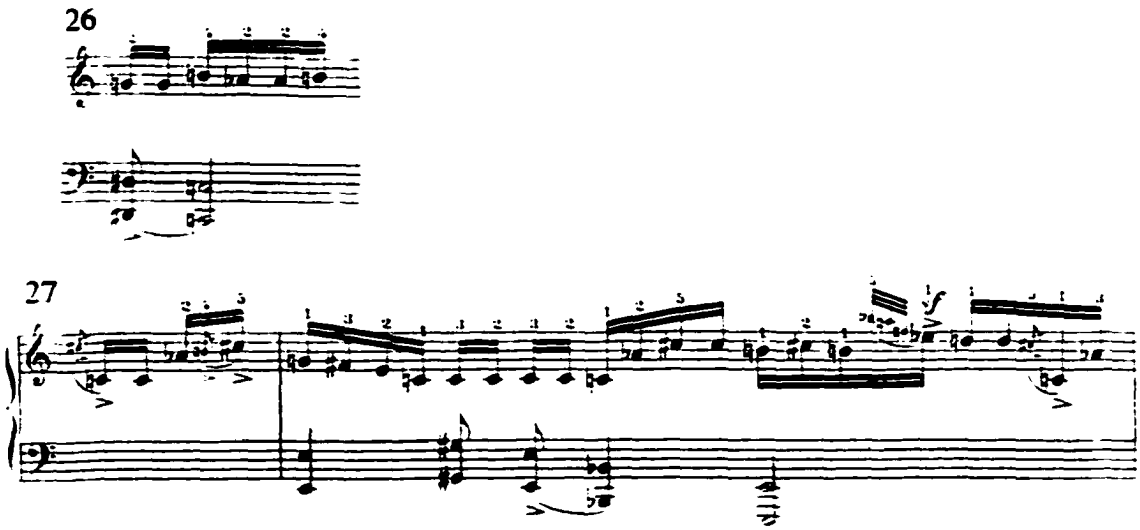
Example 22a. Slowing accompanimental figure with half notes in melody, measures 1-2.



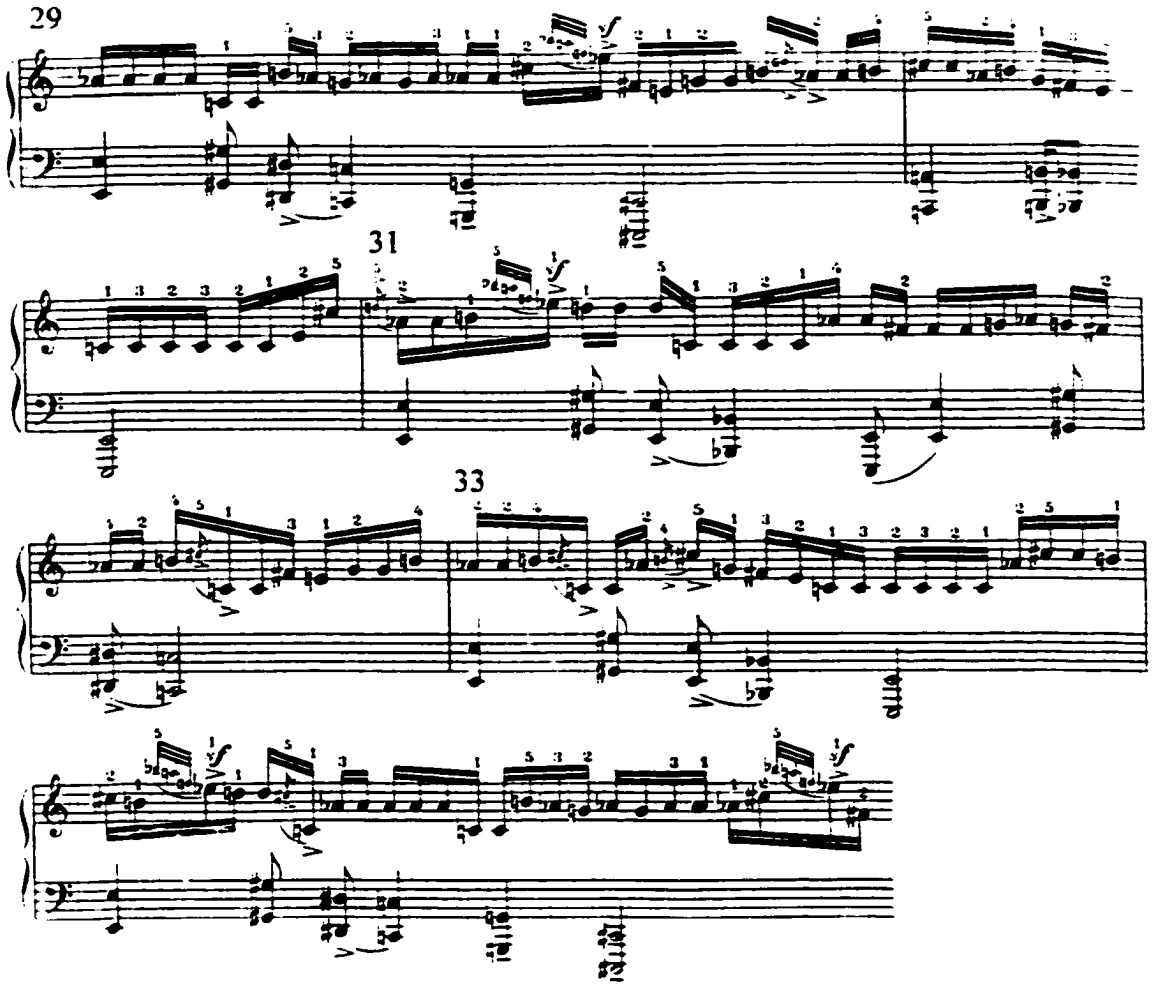
Example 22b. Slowing accompanimental figure with half notes in melody, measures 5-6.



Example 22c. Continuous sixteenth notes against half notes in melody, mm. 26-33.



Example 22c continued.

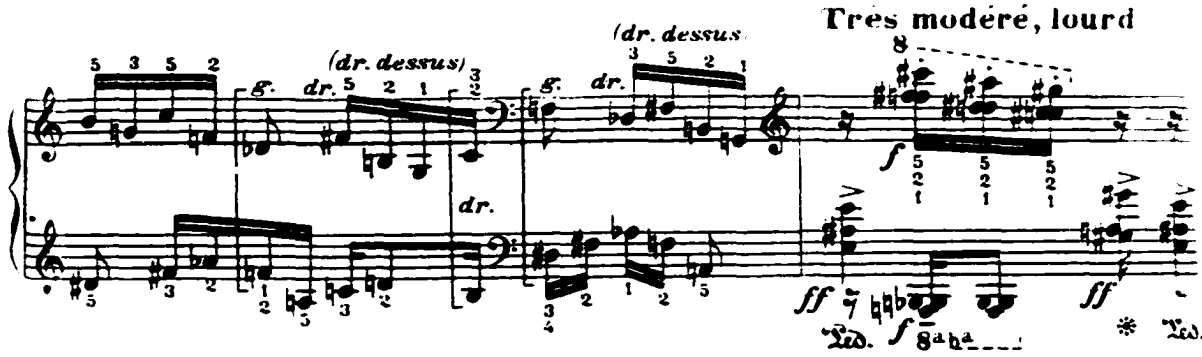


The preclusion of a cadence through perpetual motion, in this instance, exemplifies a true extension of the subject material by means of the accompaniment's failure to match the activity level of the melody, or, in other words, to support a slowing in motion.

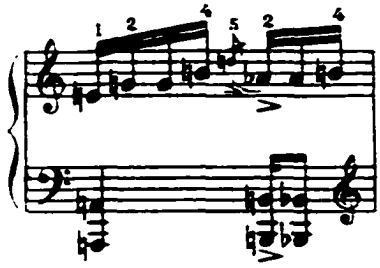
The perpetual sixteenth notes cease at the close of m. 34; measure 35, then, marks the end of the perpetual motion section. With an abrupt change in register, accompanimental material, and articulation, the shift is clearly audible; however, no

cadence has occurred. The transition from measure 34 to measure 35 is quite similar to that of m. 19 to m. 20 in that the use of a consistently active rhythmic pattern prevents prediction of the approaching pause in motion. In fact, although the extension of the section from mm. 25-34 increases the sense of tension waiting to be resolved by the finality of cadence, the case for a cadence at m. 34 is even weaker than that at m. 19: there is, in m. 19, at least a registral descent which must logically end at the bottom of the keyboard if not sooner:

Example 23a. Measure 19, culmination of a brief perpetual motion section with registral descent (followed by opening of measure 20).



Example 23b. Measure 34, culmination of a perpetual motion section without descent or other cadential pitch cues.



The pitch material at m. 34 is unmistakably consistent with the preceding ten measures, and while perpetual motion is here a strong component of rising tension, it alone is not sufficient to mark an approaching cadence. Measure 34, then, represents a largely unanticipated stop, not a cadence. It is followed only by the five-measure coda discussed early in this chapter.

In all, *Île de feu I* is a piece of many stops and pauses, perpetual variation, many moments of high tension, and few actual cadences. The distinction between cadence and stop may be unclear at times, especially in passages such as mm. 21-24, and yet there is a sense of utter weight and certainty in the final moment of the piece. Undoubtedly, this intensity stems not only from powerful writing; it is enhanced by the performer who, ever aware of even tenuous connections between cadential anticipation and intuitive resonance, uses cadential strength to the fullest.

Endnotes

[1] Volume III: 123-125.

[2] Messiaen, *Traité de rythme, de couleur, et d'ornithologie*, Volume I: 39.

[3] Ibid., 39.

[4] Ibid., Volume III: 123-125.

[5] Indeed, Messiaen confirms that measure 34 purposefully ends "without the conclusive [low] E, which is reserved" for the final moment under discussion. (*Traité de rythme*, Volume III: 124).

[6] Hasty, Christopher F. "Rhythm in Post-Tonal Music: Preliminary Questions of Duration and Motion." *Journal of Music Theory* 25 (1981): 183-216. Like dissonance among pitches, rhythmic dissonance refers to a conflict between competing rhythmic lines. The low cluster in measure 38 does not fit in the scheme of quarter notes which precedes it; rather, it falls one sixteenth after the third quarter note, thwarting the listener's expectation.

[7] Specifically, the variations of the opening two measures (see Example 7) reappear throughout the piece, each time ending with the twice-stated pitch E (as shown in Examples 5a and 5b). The arrivals of double E become more frequent as the piece grows toward its conclusion; in measure 38, the last double E is

immediately followed by the rhythmically dissonant cluster (see Example 6) which encourages aural anticipation of the final, cadential chord of the piece. Messiaen, in his own analysis of *Île de feu I*, does not make specific mention of the role of the pitch E as tonal center (although he does call the E "conclusive" [*Traité de rythme*, Volume III: 124]); nevertheless, the impact of centricity on cadential preparation is clear.

[8] Messiaen terms mm. 5-6 the first variation of the piece (*Traité de rythme*, Volume III: 123-125).

[9] Notably, the close of m. 3 (E-B-F# in the passage's last four sixteenths), the birdsong accompaniment in mm. 5-6, and the first eighth note played by the right hand in m. 9, which is truly treated as a dissonant, accented *appoggiatura* among consonant diminished and augmented fifths.

[10] Moreover, in m.1 the tritone is far more audible as the A and B act as intervallically unimportant neighbors to B-flat.

[11] In music of Messiaen, the term *résonance* bears reference to Messiaen's use of the overtone series. The *résonance* marking of measure 11, then, indicates that the right-hand chords should sound as overtones of the bass notes, and the loudness of the right hand should therefore be gauged against the ***fff*** of the left. (William Rothstein, personal correspondence)

[12] In his *Phrase Rhythm in Tonal Music*, William Rothstein posits that phrase overlap occurs more frequently in music which prizes surface melodic continuity. In general, Messiaen's compositional style is not primarily concerned with melodic continuity; however, the fact of a recurrent motive, reharmonized and recontextualized throughout a piece, renders plausible the placement of *Île de feu I* in a category somewhat more oriented toward melody and its continuity than that of many other Messiaen works.

[13] Messiaen, Olivier. *Angela Hewitt plays Messiaen.* Angela Hewitt. Liner notes: Angela Hewitt. CDA67054. Hyperion, 1998.

—. *Petites esquisses; Quatre études; Cantéyodjayâ; Tombeau de Paul Dukas.* Gloria Cheng. Liner notes: Gloria Cheng. CD 3-7267-2. Koch International Classics, 1995.

[14] Note, also, that the thumb and first finger of the right hand perform a descending scale reminiscent of octatonicism (scalar alternation between whole step and half step) in measure 14. Octatonicism is also expressed in mm. 18-19 in the left hand, and represents the second of Messiaen's modes of limited transposition. The right hand constellation of the same passage, meanwhile, bears resemblance to Messiaen's fourth mode of limited transposition: the pitches, in ascending order, are B, C, D-flat, F, F-sharp, G. The missing pitches, which would appear in a complete scale of the fourth mode, are E and B-flat (see Messiaen: *Technique de mon langage musical*). At the same time, pentatonicism is also very much present in mm. 18-19. The pitches of the right hand are grouped in two recurrent sets of three pitches each: B – D-flat (C-sharp) – F-sharp and F – G – C. The pitches of the left hand are grouped in two sets of four each: B – D-sharp – F-sharp – A-flat (G-sharp) and F – A – C – D.

Chapter III
Boulez: *Première Sonate*, first movement
Register, Interval, and Motive

I.

"...recently, the chord having lost its structural function little by little, it has become a sound-aggregate selected for its own sake, for its potential of internal tension or relaxation according to what registers it occupies and what intervals it puts into play. Its structural function thus is discovered to have been both diminished and sharpened, which tends to prove that the properly harmonic era of occidental European music has ended."

-- Pierre Boulez, *Notes of an Apprenticeship*

Boulez, in practice as well as in his prose writings, clearly weights the idea of register (and, less surprisingly, intervals) as a determining factor affecting the character of chords. The concept of register as a primary means of chordal expression extends to the realm of groups of chords and, in turn, to their function in the context of the musical phrase or section. This makes register significant as it relates to cadential gestures, and a primary concern in this chapter. Intervallic content, one of the most deliberate technical features of post-tonal music, is the second element which will be considered in this chapter as a definitive, formative part of cadential motion.

Historically, downward registral motion has been indicative of finality, of certainty and closure. The relationship of registral motion to cadential formation is one which has not been significantly altered in the post-tonal era; while the use of registral extremes has grown more frequent since the close of the common-practice era (and these extremes may function in a variety of ways, from tension-builders to tension-dispellers), the intuitive correlation of downward motion to closure and cadence remains strong.

In his *Première Sonate*, Boulez uses intervallic subtleties as well as registral intimations to supplement the expressivity of both chords and other pitch events. In discussing a shift in the "structural function" of chords, Boulez refers primarily to their erstwhile role as a component of common-practice harmony; one may additionally consider "structural function" as a more general reference to the grouping of tones into meaningful collections. These collections traditionally have been related to harmonic and rhythmic progressions, generally based on the fundamental musical dichotomy of tension and resolution. Pitch collections have also been the main element giving rise to the larger groups articulated by cadences.

Since the end of the "properly harmonic era," however, tension no longer results from the struggle between tonic and foreign keys, nor does it necessarily stem from dissonance between pairs of tones. The progression of most post-tonal music, though, does involve both tension and a sense of comprehensible grouping. These, along with an understanding of cadential resolution of tension and cadential completion of groupings, must come from other sources.

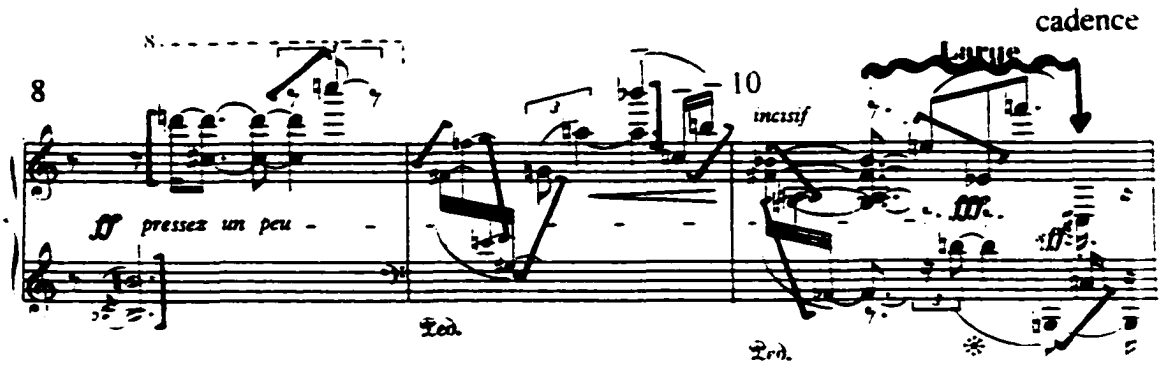
Meter has remained a fairly consistent foundation for the grouping of notes into recognizable subsections; however, a striking characteristic of both movements of Boulez' *Première Sonate* is the absence of a time signature or a consistently predictable sense of meter. Instead, one is aware of the slowing and quickening of motion, a more generalized form of the familiar patterns of harmonic rhythm heard in tonal music (as discussed in Example 1, Chapter 1). In music of Boulez as well as Messiaen, the sense of imminent metric or rhythmic change is important in terms of alerting the ear to the possibility of an approaching cadence or other section stop. Shifts in harmonic, melodic,

rhythmic or other motion, either slowing or quickening, often indicate that significant change approaches; as we have seen in Chapter II, the anticipation of these changes lends a sense of tension as the passage continues.

While expressions of tension and resolution in post-tonal music are vaguely defined in comparison to those in tonal music, the lack of clear harmonic definitions of tension and resolution (commonly V7 and I, respectively) also allows for an expanded notion of what creates musical tension and how it may be resolved. For instance, mm. 8-10 (see Example 24) show a fairly traditional intensification through the direction *pressez un peu*, providing not only a heightened sense of musical tension, but a unifying feature supporting interpretation of the three measures as a cohesive unit.

Another unifying attribute of mm. 8-10 is the frequent appearance of two very closely related intervals: minor ninths and major sevenths. These form the great majority of the intervals of the passage, and their distinctive sound renders them easily recognized, especially at the *large* in measure 10.

Example 24. Boulez: *Première Sonate*, first movement, mm. 8-10; distinctive ninths and sevenths shown.



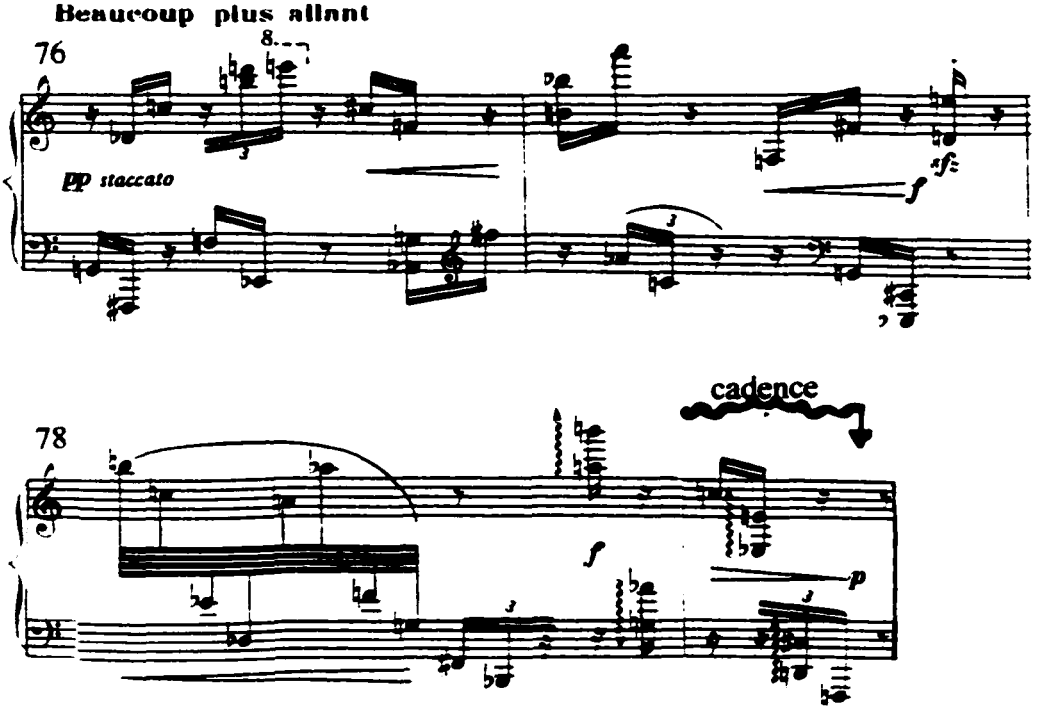
Along with a strengthening *crescendo* into the *incisif* section, the three-measure gesture finishes with something of a *ritard* in measure 10 by means of the broadened eighth notes and *large* articulation. Moreover, a dramatic piling of meaningful pitches and a jarring combination of articulations conjoin texturally to offer a straightforward cadential process. The ***sffz*** in measure 10, attended by silence (m. 11, beginning), is a typically decisive finish similar to several of those discussed in the following pages.

Less traditional than the cadence of measures 8-10 is the closure of the section consisting of mm. 76-79 (Example 25). In this metrically irregular but tensely rhythmic group of gestures, two consecutive measures end in *crescendo*, the second of these culminating in a *sforzando*. The *staccato* articulation of these measures is interrupted by a piquant slurred collection pairing intervals of sevenths and ninths at the outset of measure 78, derived from the intervallic content of nearly all of pairs of sixteenth notes from measure 76 onward. In turn, the brief slurred gesture is followed with a series of arpeggiated dyads (mm. 78-79), also composed of sevenths and ninths. (Of course, the particular prominence of minor ninths and major sevenths is related to the same in measures 8-10; as we shall see, the distinctiveness of interval class 1 is shaped from the very first cadence of the movement in measure 7.)

Intervallic consistency unifies these four measures; the final one, measure 79, is differentiated only dynamically and registrally. Cadential sensation comes from both the *diminuendo* and from the consistent descent over the measure's four tones and chords. This provides a marked contrast to the preceding three measures, which, for the most part, change direction after every pair of tones. Humorously, Boulez does add a bit of

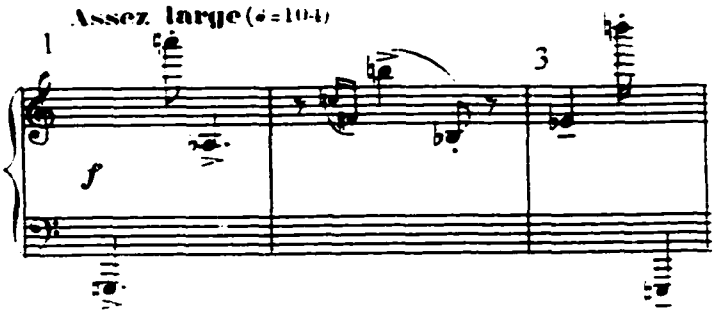
internal conflict, moving against the totality of the descent of measure 79 by indicating that the arpeggiated dyads are to be rolled from bottom to top.

Example 25. Boulez, *Première Sonate*, first movement, mm. 76-79; rolling of dyads moving upward against descent.



As has been posited earlier, registral extremes take on a measure of importance in determining cadential formations in the *Première Sonate*; these provide for the ear a clear mark of distinction and recall. In Boulez, register sometimes retains its traditional role as a function of tension, rising and falling along with it, while at other times register is serialized (as in the intervallically symmetrical first measures of the second movement of the *Première Sonate*, Example 26 below).

Example 26. Boulez: *Première Sonate*, second movement, mm. 1-3. Register is serialized; due to its inorganic derivation, register here is not a cadential factor.

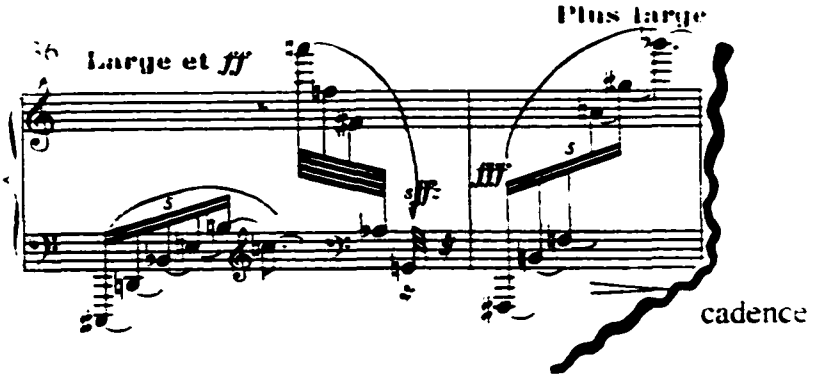


The intermittent use of register as a signal of tension and resolution in this first movement is, interestingly, not distorted by the appearance of functionally differential registral extremes. The role of register is especially significant as the appearance of transitional material in the movement is somewhat infrequent in the first movement (in great contrast to the second), resulting in a heightened awareness of tightly woven, highly organized motivic economy. Register, then, may act not only as an indicator of tension level, but as a place-holder providing the listener with an intuitive grasp of a phrase's progression toward cadence.

With the abovementioned elements in mind, particularly those invoked by Boulez – register and intervallic content – cadences in the first movement of the *Première Sonate* may be secondarily classified according to their link with one of the following:

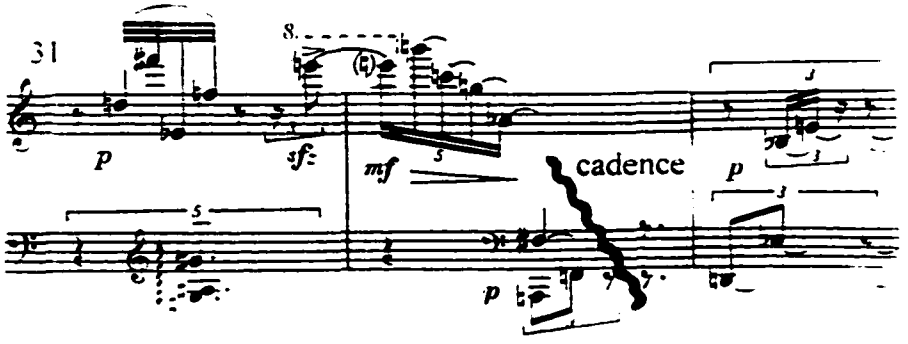
A. Expressive markings of *violent*, *large*, or *fort*, often in conjunction with ***sffz*** markings, as in measures 8-10 (Example 24 above) and measures 36-37, shown below in Example 27:

Example 27. Boulez: *Première Sonate*, first movement, mm. 36-37; cadence associated with violent expression.



B. Dynamic markings of *pp*, usually with *decrescendo* and often tossed away with diminutive note values as in the final measures of the movement:

Example 28. Boulez, *Première Sonate*, first movement, mm. 109-110; cadence associated with diminution of dynamics and note values.



In addition to the above duality, a number of cadences in this movement are characterized by the presence of a significant post-cadential pause; a further consideration is Boulez' evocation of cells of recognizable compositional material through intervallic and rhythmic derivation. Table 3 shows the cadences of the first movement along with those of the ten cadential factors that contributes to each.

Table 3. Measure numbers of cadential gestures and their causative elements in Boulez: *Première Sonate*, first movement. (Question marks after a measure number indicate ambiguity as to whether a cadence takes place.)

m. 7	Duration, silence, contour, centricity, activity level, dynamics, articulation.
m. 10	Duration, silence, contour, activity level, dynamics, texture/color, articulation
m. 14	Duration, silence, centricity, activity level, motivic repetition, articulation.
mm. 22-23	Silence, centricity, motivic repetition, dynamics, articulation.
m. 32	Duration, silence, contour, centricity, activity level, motivic repetition, dynamics, texture/color.
m. 37	Duration, contour, activity level, tempo, dynamics.
m. 57 (?)	Duration, contour, activity level, dynamics, texture, articulation.
m. 67	Silence, contour, activity level, motivic repetition, dynamics, texture, articulation.
m. 74	Duration, silence, centricity, activity level, texture/color, articulation.
m. 79	Silence, contour, dynamics, texture, articulation.
m. 96 (?)	Silence, contour, activity level, motivic repetition, dynamics, texture, articulation.
m. 110 (?)	Silence, motivic repetition, dynamics, texture/color, articulation.

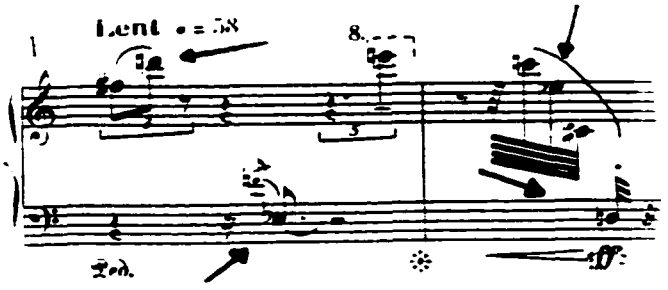
We shall begin by garnering an understanding of the techniques noted above from a thorough study of the first seven measures of the movement, their far-reaching effects throughout, and the motivic strength and potential of the intervals and rhythmic gestures presented therein.

II.

The opening seven measures (see Example 30) of the *Première Sonate* of Boulez contain a number of points at which cadential motion appears. The first two musical

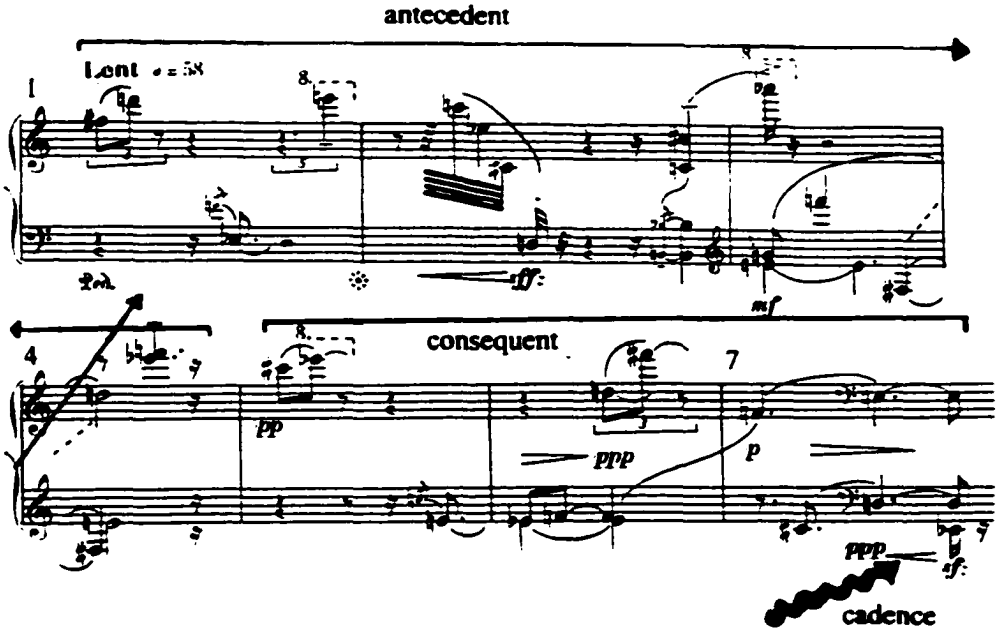
cells, ending in the middle of m. 2 on the *sffz* note, give a strong impression of what will take place throughout the movement, partly in terms of duality and opposition: m. 1 (notably without dynamic marking) moves slowly in comparison to the sixty-fourth notes of m.2; there is a dramatic crescendo marked in m. 2; there is a marked change in contour as well. Two pitches which will retain weight (E-flat and D, although they are also clearly significant in the context of the tightly woven intervals here which will figure throughout – the sevenths and ninths, or interval class 1) make themselves known by the register in which they are used and by the length and articulation, respectively, of their appearances.

Example 29. Boulez: *Première Sonate*, first movement, mm. 1-2; prominence of E-flat and D illustrated.



While the silence separating this first cell from the following one (beginning on the last quarter note of m. 2) might in itself lead the listener to feel a cadence, one has not, in fact, yet taken place. This is, in large part, because not enough time has passed to allow sufficient establishment or tension to produce a cadence. Even more importantly, these two measures form part of a phrasal antecedent consisting of mm. 1-4.

Example 30. Boulez: *Première Sonate*, first movement, mm. 1-7; antecedent-consequent sections marked; rising contour in antecedent marked.



The antecedent culminates with a thrice-stated upward sensation in terms of contour (shown in Example 30 above) as well as the impression of rhythmic instability stemming from numerous tied notes and from the absence of a clear pulse; these combine to discourage any sense of completion or cadence. However, upon hearing mm. 5-6, which share contour with m. 1 and are very similar rhythmically, it is clear that there is a formal relationship between the opening four measures and what follows them. As mm. 6-7 fade dynamically and the temporal spaces between notes grow larger, one may anticipate that an ending is drawing near.

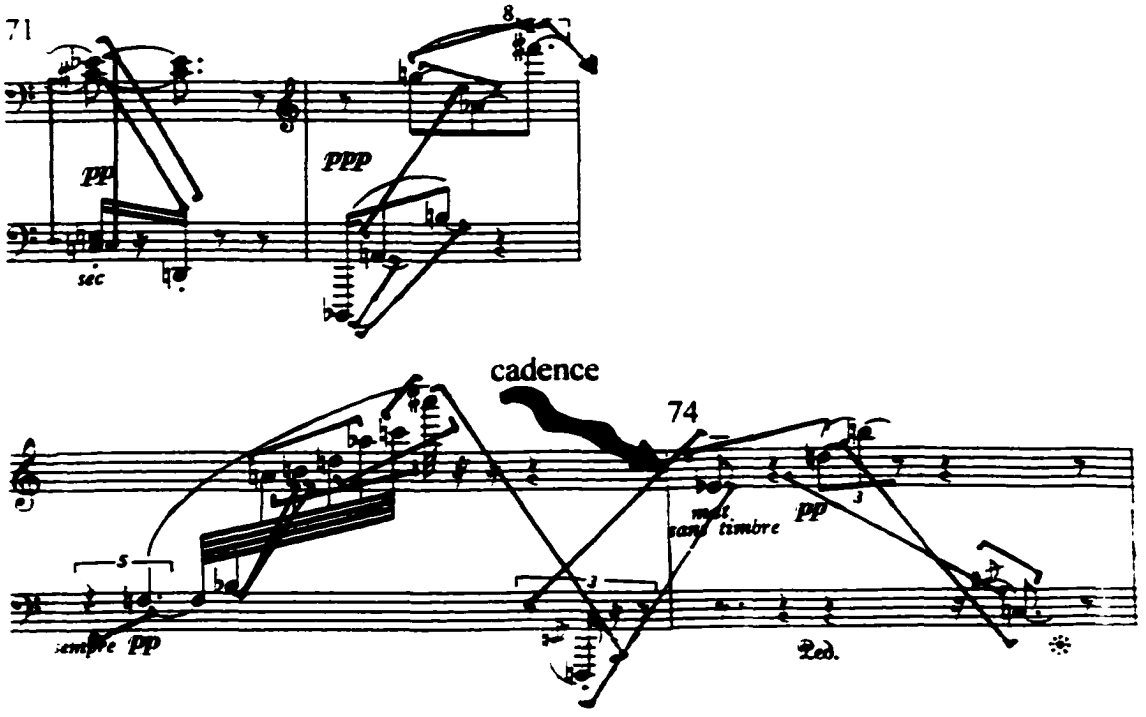
The sudden *sfz* E-flat at the close of m. 7 concludes the consequent and the cadence. The magnitude of the E-flat is readily discernible; in these first seven measures, E-flat has appeared six times in six different octaves, while no other pitch occurs in more

than three. In five of its six appearances, the E-flat is prominent because of at least two of the following: register, length, positioning before a rest, accent, and position as a tone articulated alone in the texture. This fact greatly supports the centricity of E-flat and its significance at the close of m. 7, surrounded by the tied E and D, both at interval class 1 from E-flat. The eighth rest which begins m. 8 also helps to define this first phrase and its cadence; note, also, the preponderance of horizontal and vertical major sevenths and minor ninths in these measures – especially as the cadence draws near.

The opening measures of the sonata's first movement, then, display cadential motion based upon virtually all of the cadentially important notions posited herein: duration, silence, contour, centricity, activity level, motivic repetition, dynamic, texture, and articulation. Register has already shown itself key in this movement, and nascent intervallic patterns, while they have not yet been extensively treated, have established roots which develop meaningful structural connections as the piece progresses.

Continuing with the thread of the effect of intervals on cadential gestures, we move on to measures 70-74, which constitute a revealing portion of the movement. While the registral pattern here contributes less clearly to the cadence in mm. 73-74, the sense of completion comes from both intervallic structure and the centricity of the pitch E-flat; the fact of an ending at this point is unambiguous. Note the chain of interval class 1 as notated in Example 31.

Example 31. Boulez: *Première Sonate*, first movement, mm. 71-74; interval class 1 bracketed.

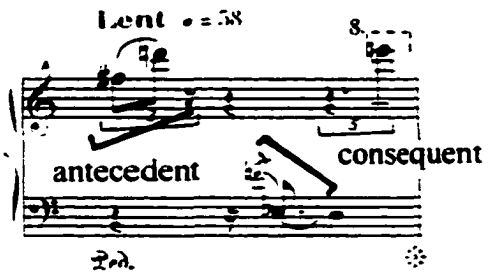


The cadence clearly completes itself on the E-flat at the beginning of m. 74, with the telling direction *mat, sans timbre* adding to the finality of the pitch itself, its central placement on the keyboard following two extreme registral shifts, its position surrounded by silence, and the arguable end of the interval class 1 chain; what follows in measure 74 is the only instance in the movement in which the opening motive – a rising or falling sixth, usually as part of a triplet eighth note figure – appears mid-measure. The unusually immediate restatement of the pitch D (which directly precedes and follows the E-flat in question), though it may be inaudible due to register in measure 73, raises a number of questions: firstly, the reason for and significance of the pitch repetition; secondly, the purpose of extending the cadence over the barline into measure 74, displacing the beginning of the next section.

The answer to the first question is probably that the importance of the pitch D is being subtly reinforced, and also that its relationship with E-flat makes it doubly valuable as both a centric pitch and a partner in a fundamental interval class 1 pairing. In this particular instance, the D also represents something resembling a "leading tone," which, although it is certainly not functional, bears out the analogy in a looser sense. From the first several measures of the movement, D has had more than its share of appearances, and has been outdone only by E-flat. Interval class 1 has been so prominent throughout that the ear, especially that of the listener with absolute pitch, associates IC1 in general and D and E-flat in particular in a manner similar to that of a dominant-tonic relationship. In order to support this claim, let us examine again the first measures of the movement.

The first gesture is an open-ended one, rhythmically and dynamically indeterminate. In a sense, it is a tiny antecedent phrase, supplemented locally by the following two-note gesture as illustrated below:

Example 32. Boulez: *Première Sonate*, first movement, m.1; antecedent-consequent cells marked.



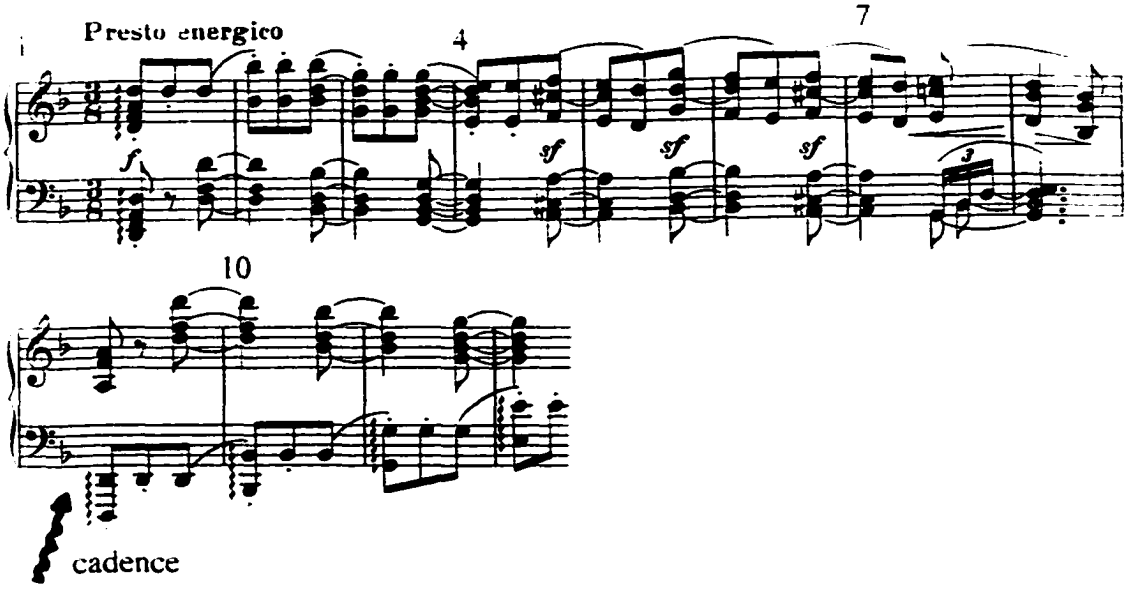
Notably, the "antecedent" cell ends on a D; the "consequent" cell ends on an E-flat. The music continues with the first instance of IC1, transitioning through the E-natural into a third gesture, which ends definitively but non-cadentially on a D (see

Example 29; refer to page 57 for discussion). From this point, D and E-flat continue to establish centricity by means of frequent appearances, agogic accents, and key positions at cadentially significant moments. Referring to Example 29, it is clear that in the antecedent-consequent phrase marked, the paired tones D and E-flat each play an articulative role; in both measures 4 and 7, D provides a held, stable tone while E-flat appears in a more pronounced position to complete the section. By measure 73, then, it is not surprising to associate the two, nor is it unforeseen that the pair may be heard as a cadential indicator. This is, indeed, the case in mm. 73-74; still, the placement of the cadence just after the barline remains to be examined. (In mm. 73-74, the upper "leading tone," E natural, often meets with D to converge on E-flat.)

In music of the tonal era, typical cadential progressions do often move across the barline; it is only in the context of this movement that the placement draws attention. This is especially so due to the absence of a time signature or a regular metric scheme in this movement; Boulez could simply have placed the barline elsewhere in measure 74 without incident. This seventh of eleven appearances of the rhythmic and intervallic motive in the movement is the only one that does not occur as the first gesture of its measure.

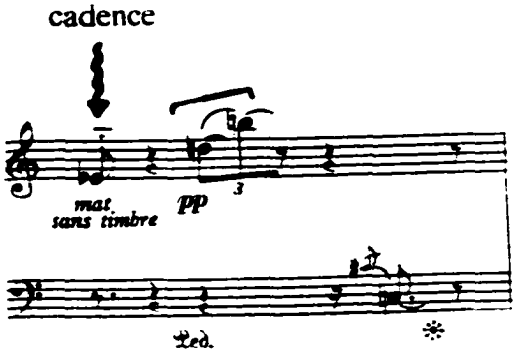
The explanation for this phenomenon may lie in the association of cross-measure cadential gestures with tonal music. Another characteristic of some tonal music is phrase elision, as shown below in conjunction with a cadence over the barline of measures 8-9 in Example 33.

Example 33. Brahms: Capriccio, op. 116, no. 1, mm. 1-12; cadence moves over the barline.



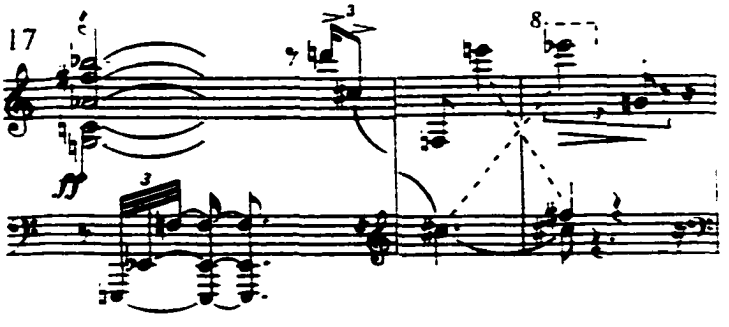
The Brahms example above is comparable with mm. 73-74 of the Boulez sonata not only in its similar usage of a centric note (in the Boulez, E-flat; in the Brahms, D) in a cross-measure cadence. While, rhythmically and intervallically speaking, the Boulez motive is complete as shown in Example 34 – that is, without the preceding E-flat – the E-flat serves to elide two musical sections by means of its unusual placement (at least, visually). The direction *mat, sans timbre* and the heavy articulation of the E-flat in measure 74 of the Boulez, while asserting the finality of the musical moment like the D-minor chord at the start of m. 9 in the Brahms, also propel the ear toward the start of the new section in a way that no other cadence has yet done. The presentation of the cadence in mm. 73-74 fits into neither of the two characters discussed in this chapter (see pp. 54-55). Rather than a flourish or a suggestive *diminuendo*, this cadence gives neither expression nor color. Instead, it serves as both a finishing moment and as a connector between two brief, disparate sections of music.

Example 34. Boulez: *Première Sonate*, first movement, m.74; cadence as connector, with motive bracketed.

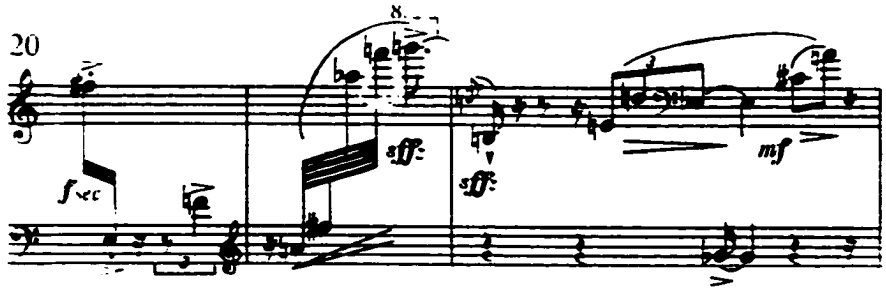


The cadential area extending throughout measure 22 of the first movement presents another, clearer reminder of the forms and processes of tonal music. The downbeat of m. 22 concludes a section reminiscent of an operatic recitative; replete with sixty-fourth notes punctuated by accented pitches at both ends of the keyboard, mm. 17-21 (after the initial chord in m. 17) contain single pitches almost exclusively. While the pitch range is no larger than that in surrounding sections, the intervals between specific pitches are particularly sizeable. Again, this recalls the large, dramatic leaps required in an operatic context.

Example 35. Boulez: *Première Sonate*, first movement, mm. 17-22; illustration of *recitative* character.



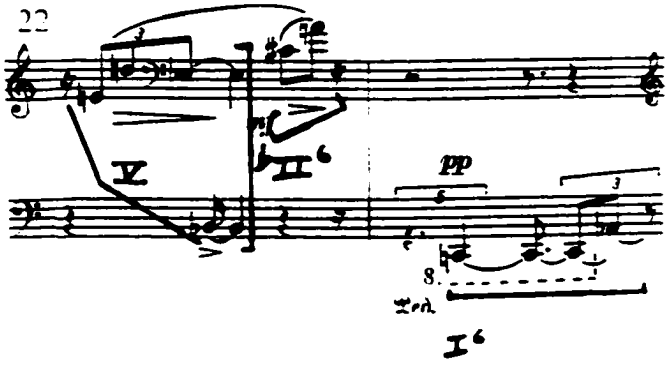
Example 35 continued.



After a considerable moment of silence in m. 22, a short extension ensues. Transitional material, unusual in this movement, prepares in this case for a statement in m. 23 of a version of the opening motive of the movement. Here, not only approximate intervallic recall but an implied harmonic progression occurs: the rising interval of a minor sixth is stated at the close of m. 22. It is immediately repeated at the outset of m. 23, two octaves and one half-step lower. With a brief rest between the two unaccompanied dyads as well as the dynamic shift from grand (mm. 16 to mid-22) to modest (end of m. 22 to mid-24), the intervals C# - A followed by C - A-flat constitute a possible reference to the Neapolitan sixth chord. While the flat-II chord does not resolve to the dominant, as was typical in the periods during which it was favored, the pungent rest at the beginning of m. 23 is filled with implications; furthermore, were the Neapolitan chord (respelled from B-double-flat Major to A Major) complete and functioning, it would resolve to a dominant of A-flat, including the (enharmonic) pitches E-flat, G, and B-flat. The root of this suggested chord, E-flat, directly *precedes* the arpeggiated "Neapolitan" chord in question. In a sense, then, the dominant is somewhat present. Its meaning is transformed by the belated presence of another arpeggiated "chord" which is, in turn, validated by the subtle dominant. The retransitional measure

22, tightly deliberate as is all of Boulez' *œuvre*, is particularly worth noting in its collection of harmonic references, based primarily on the recurrent interval of the minor sixth:

Example 36. Boulez, *Première Sonate*, first movement, mm. 22-23; Neapolitan reference marked (respelled B-double-flat Major as A Major).

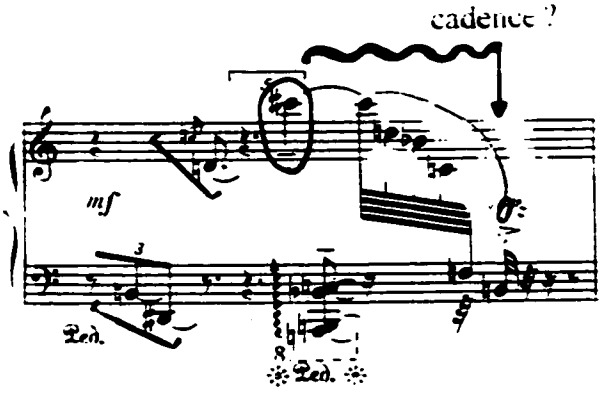


This embellished Neapolitan motion from "dominant" to "tonic" is surely among the clearest cadential borrowings from tonality that one could find in post-tonal music. While the motivic interval of the minor sixth and the importance of IC1 remain intact, the language of this cadential passage finds a cognate in that of the tonal era. It is possible that Boulez intended the passage to refer to the flat-II phenomenon; in any case, the sparse voicing and pregnant rest in mm. 22-23 combine with a clear intervallic phenomenon to create that possibility.

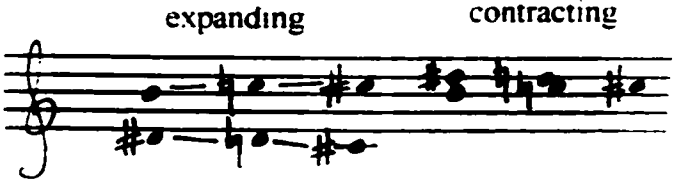
The same two intervals, motivic in their consistent reappearances, contribute along with register to form a convincing culminant gesture in measure 103. Condensed into one five-note progression, this statement of the minor sixth (moving downward in this instance) is followed by the embrace of a minor seventh, connected to each of the

first two pitches by IC1. Example 37b shows the manner in which expanding and contracting dyad patterns are related. As illustrated in Example 37c, each of these dyads shrinks when inverted until meeting at C#.

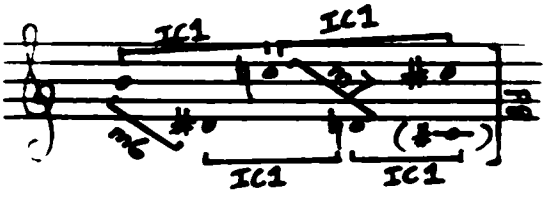
Example 37a. Boulez: *Première Sonate*, first movement, m. 103; dyad motion toward C# shown.



Example 37b. Relationship between contracting dyad patterns and expanding ones.

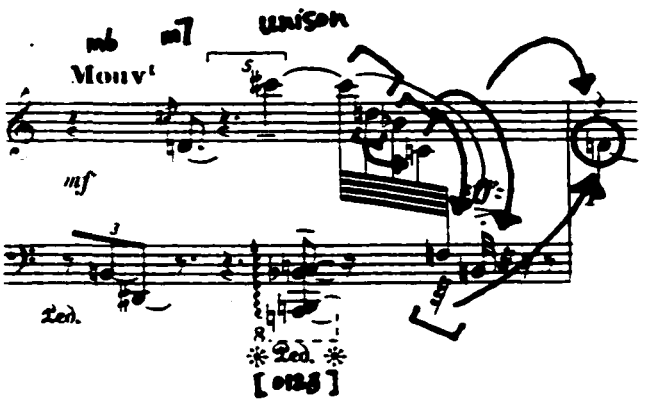


Example 37c. Interval relationships between first five pitches, m. 103.



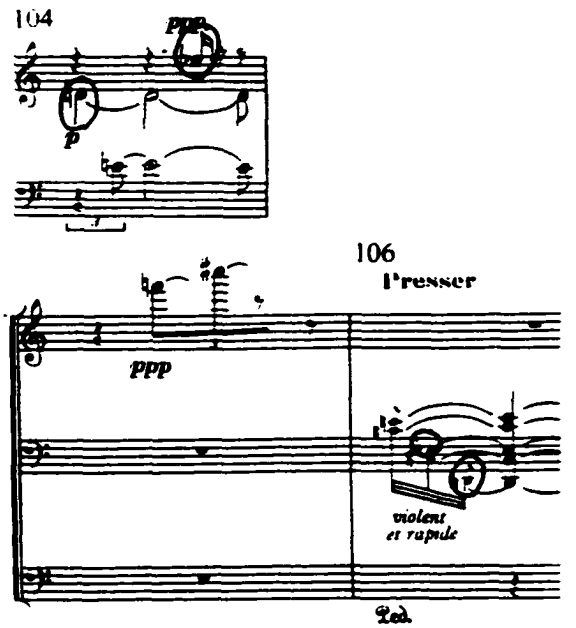
As becomes apparent upon the recognition of this process, the technique of creating a meeting-point between contracting intervals informs the intervallic plan of the entire movement. Inverted, these contracting intervals expand by half-step increments, as illustrated in Example 37b. In this light, the significance of IC1 gains tremendous consequence as a connecting force facilitating the expansion and contraction of dyads to a unison. While the progression of intervals to a meeting-point is pervasive throughout the movement, the section beginning at m. 97 is infused with a directive thrust toward a pitched centrality. As shown in Example 38, the construction of measure 103, along with the continuation of the intervallic motion toward the pitch D at the beginning of measure 104, throws into doubt the existence of a cadence at this point.

Example 38. Intervallic construction of measure 103.



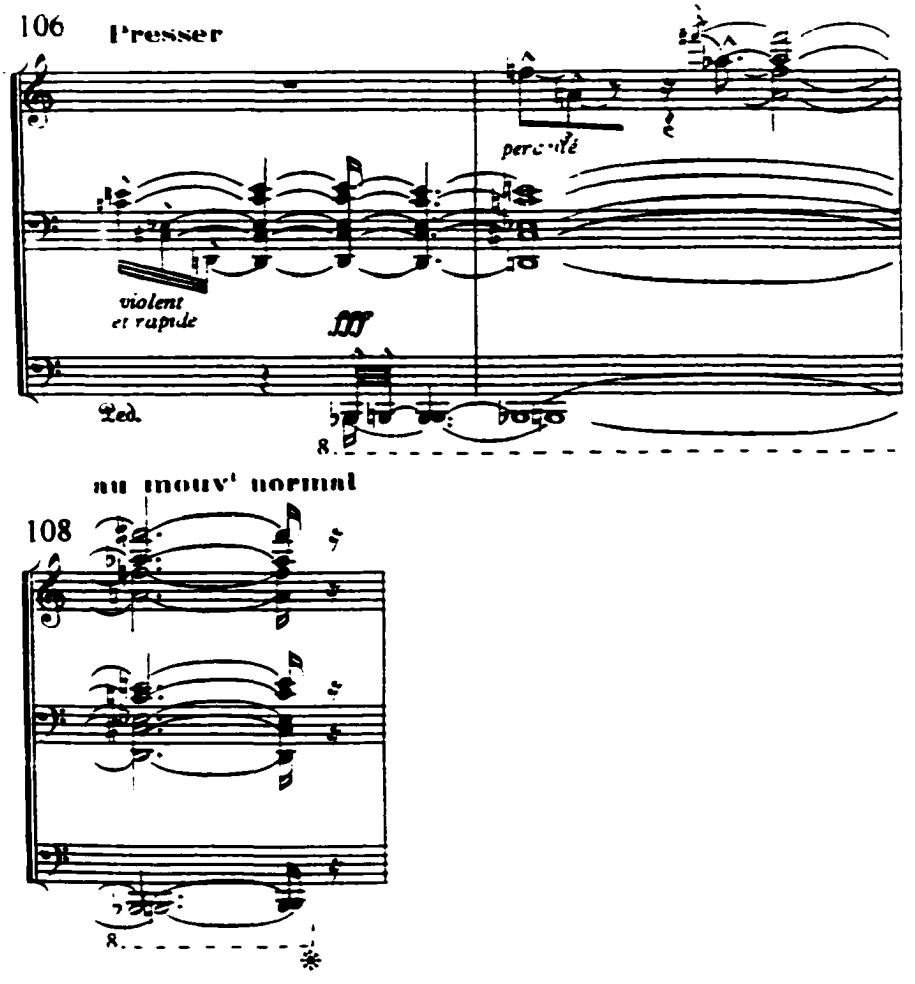
Once C# has been introduced in measure 103, the chain continues, this time aiming toward D, the start itself of another new chain. Continuing to invert dyads as needed, we find measure 105 to appear as a reaffirmation of the movement's focus on D and E-flat. This fits well into the scheme of the surrounding measures, as demonstrated in Example 39.

Example 39. Boulez: *Première Sonate*, first movement, mm. 104-106; focus on D and E-flat shown.



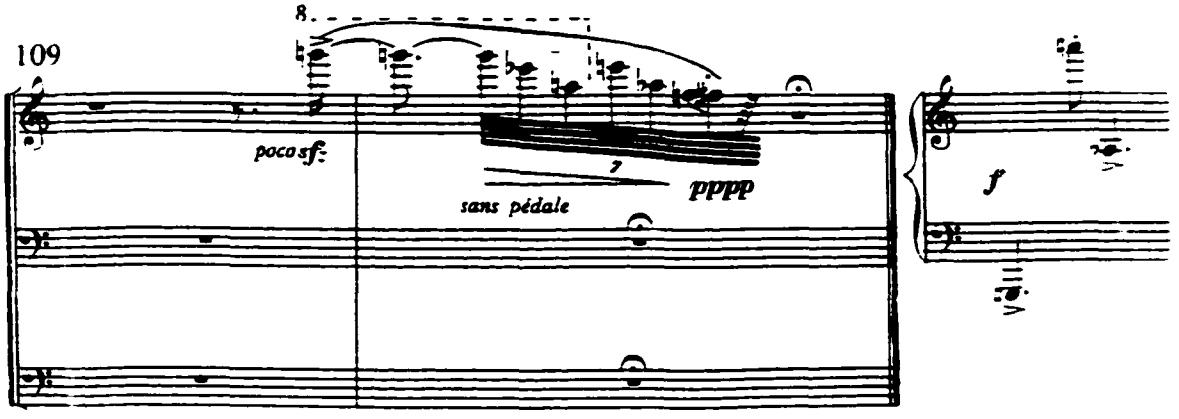
At this point, the direction shifts abruptly toward a new pitch, G, which has been relatively unimportant thus far. From measure 106, locally and ostensibly leading to D, a startling building of pitches begins. Due to the direction *au mouvement normal* in measure 108, the large chord – while perceived by the listener as a clear and dramatic pause in motion due to its length and volume – is not presented as a cadence. (As Messiaen sometimes does, Boulez here gives a performance direction *(au mouvement normal)* while providing no moment of attack with which to articulate the change indicated. As will be discussed in general terms in Chapter 4, several methods of projecting such directions avail themselves to the sensitive performer.) Moreover, the cadence cannot take place in measure 108; the chord in question is but a preliminary to the climactic appearance of the pitch G, the only pitch not present in the preceding chord.

Example 40a. Boulez: *Première Sonate*, first movement, mm. 106-108; *au mouvement* and absence of G weaken sense of cadence.



The G does appear in measure 109, just after the chord shown above, and is followed by another brief series of dyads. These seem to move toward G again, but in an unceremonious *diminuendo* reminiscent of several earlier quiet cadences, the movement closes without a second statement of its final goal. The G reappears as the first note of the following movement.

Example 40b. Boulez: *Première Sonate*, first movement, mm. 109-110 (close of movement without reappearance of G); opening of second movement.



The final measure of the first movement is a *dénouement/désinence* and, as it contains no indication of its finality, may be considered as a non-cadence. Following Messiaen's methods, though, one observes that a concern with cadence is optional rather than obligatory. The long silence at the beginning of measure 109 does cue the ear to impending change and, also, to the possibility of an approaching cadence, but the lengthening of note and rest values alone cannot produce a cadence without other stimulating precursors. The centricity of the pitch G, so strongly established in the last few measures of the piece, speaks rather powerfully against a cadence here. Measure 103, while it is composed of dramatic incidents which lead intuitively to a concluding moment, finishes on a *sforzando* but leaves incomplete connections to be continued in the following section of music.

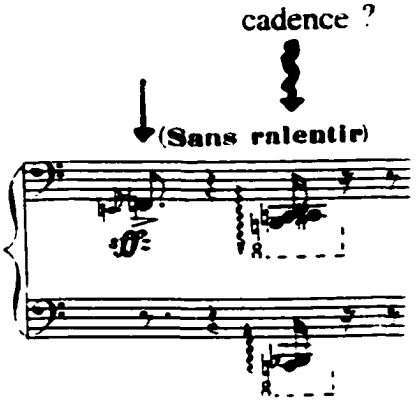
The technical supports in each of these two cases – the unfinished chain in measure 103 and the completed twelfth tone in measure 110 – contradict the gestures and

shapes by which they are expressed. Neither case clearly contains or lacks a cadence. Perhaps, then, it is necessary to recognize the fallibility of making interpretive determinations based solely on a system of elements, and also of constructing an interpretation based solely on gestural intuition; it is necessary to reconcile systemic and intuitive decision-making and to reach an understanding of the subtle interaction between the two, even in cases with no clear result. In the instance of measure 110, one possibility is to recognize the implied continuity of musical sections without indisputable boundaries and to interpret the passages as inherently connected. This does not preclude the acknowledgment of several pauses in motion; however, it does explain the possibility of a movement ending without a definite cadence. On the other hand, the *dénouement/désinence* which ends measure 110 is one of the two main gestures posited at the opening of this chapter as characteristic of the movement. Indeed, it is possible to call the end of the movement a cadence and still make an obvious aural connection between the two movements by means of an *attacca* transition. In fact, the sensitive pianist, realizing the end of the movement as containing a strong central accent followed by *désinence*, will simply make an appropriate cadential decision.

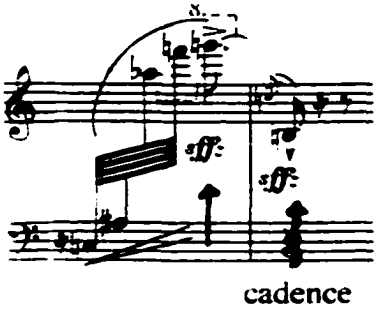
Progressing in reverse, we continue by examining the section preceding m. 103 and, along with it, a thwarted cadence.

Measures 96-97 form the close of the last of four sections marked *allant* or *beaucoup plus allant.* Because of several precedents in the movement (see Examples 41b and 41c), the double articulation of an emphatic statement in measure 96 is routine:

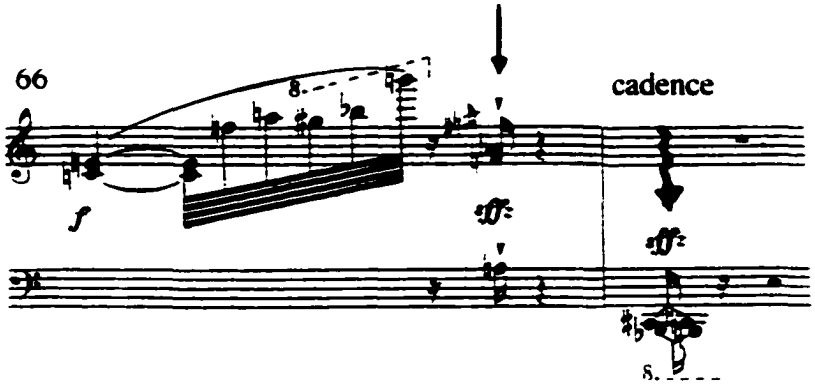
Example 41a. Boulez: *Première Sonate*, first movement, m. 96; twice-articulated emphasis marked.



Example 41b. Precedent for double articulation, mm. 21-22.



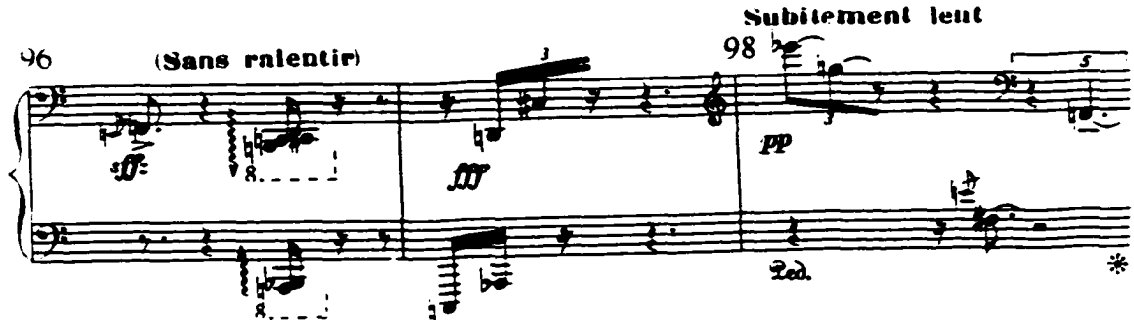
Example 41c. Precedent for double articulation, mm. 66-67.



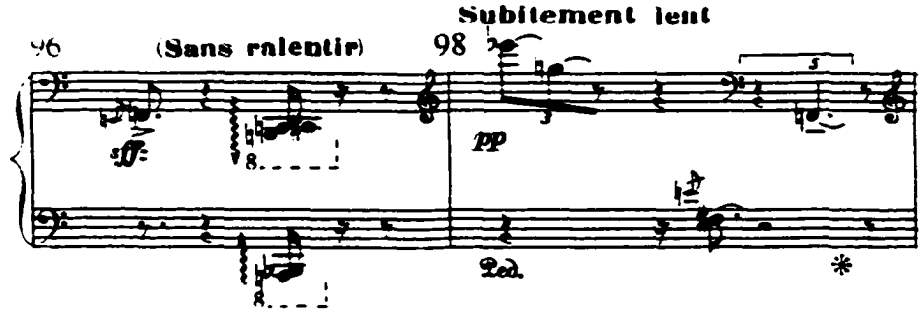
Only one thing separates the cadential character of measure 96 from the emphatic moments in Examples 41b and 41c: measure 97. For several reasons, the presence of

measure 97 defuses the cadential sense which would arise from the progression of measure 96 directly to measure 98.

Example 42a. Boulez: *Première Sonate*, first movement, mm. 96-98; m. 97 defuses intensity of cadential direction.



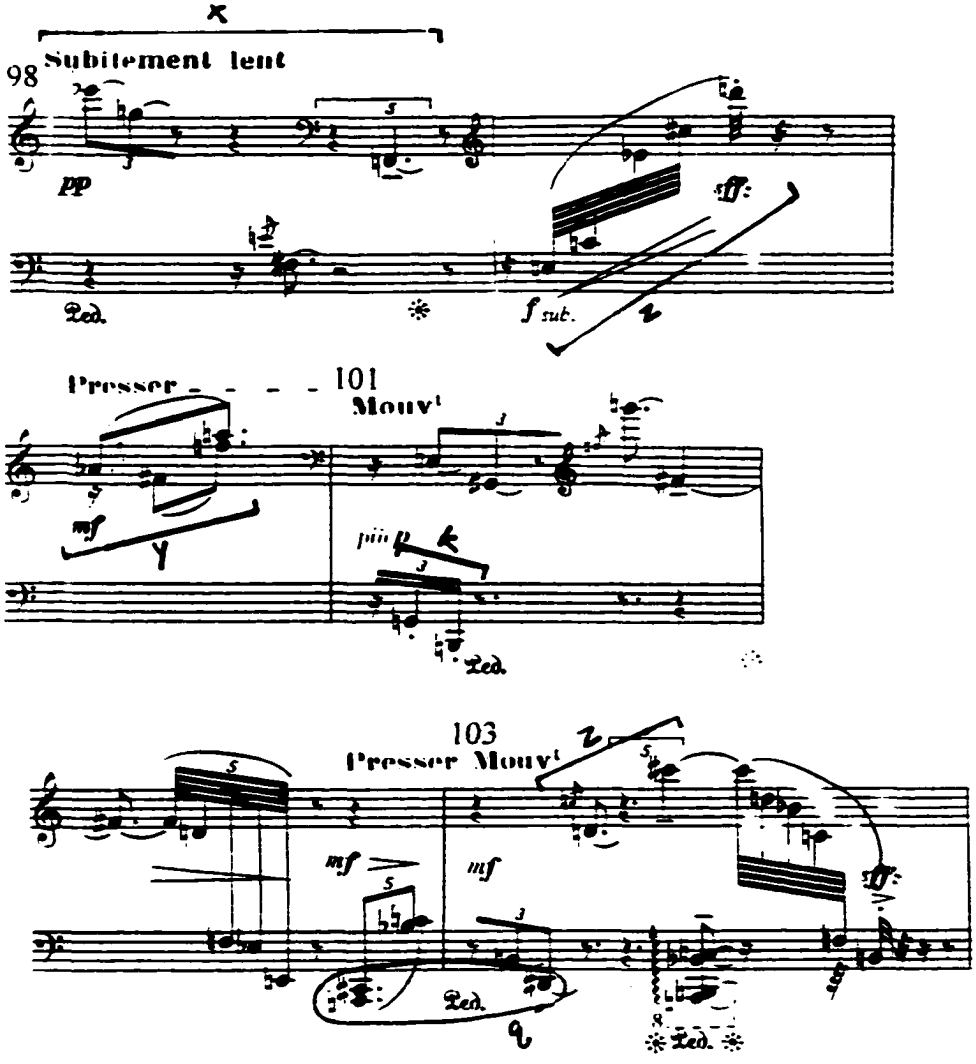
Example 42b. Comparison of momentum with continuation from measure 96 to 98, measure 97 removed.



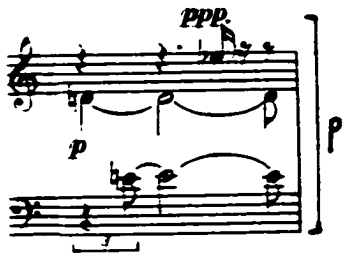
Surrounded by silence, measure 97 moves upward and dispels the directional and registral finality of measure 96; dynamically and rhythmically, it projects an energy which implies continuation of the motivic vitality of the *beaucoup plus allant*. The brief return of the *beaucoup plus allant* material lulls the ear into believing that a substantial resumption has begun. In fact, what follows measure 97 is a return of the movement's opening gesture, with the addition of a telling *subitement lent*.

Examples 41a and 41c demonstrate the similarity of the double articulation in measures 66-67 and 96; the comparison extends to what follows them. Measures 68 and 98 contain the same pitches, and they continue to parallel each other until each reaches a stopping point at E-flat. This, along with the absence of any cadence after the onset of measure 98, implies that the return of pitch and rhythmic material is a continuous one, forming a self-contained musical group. Formally, this seems to be a coda.

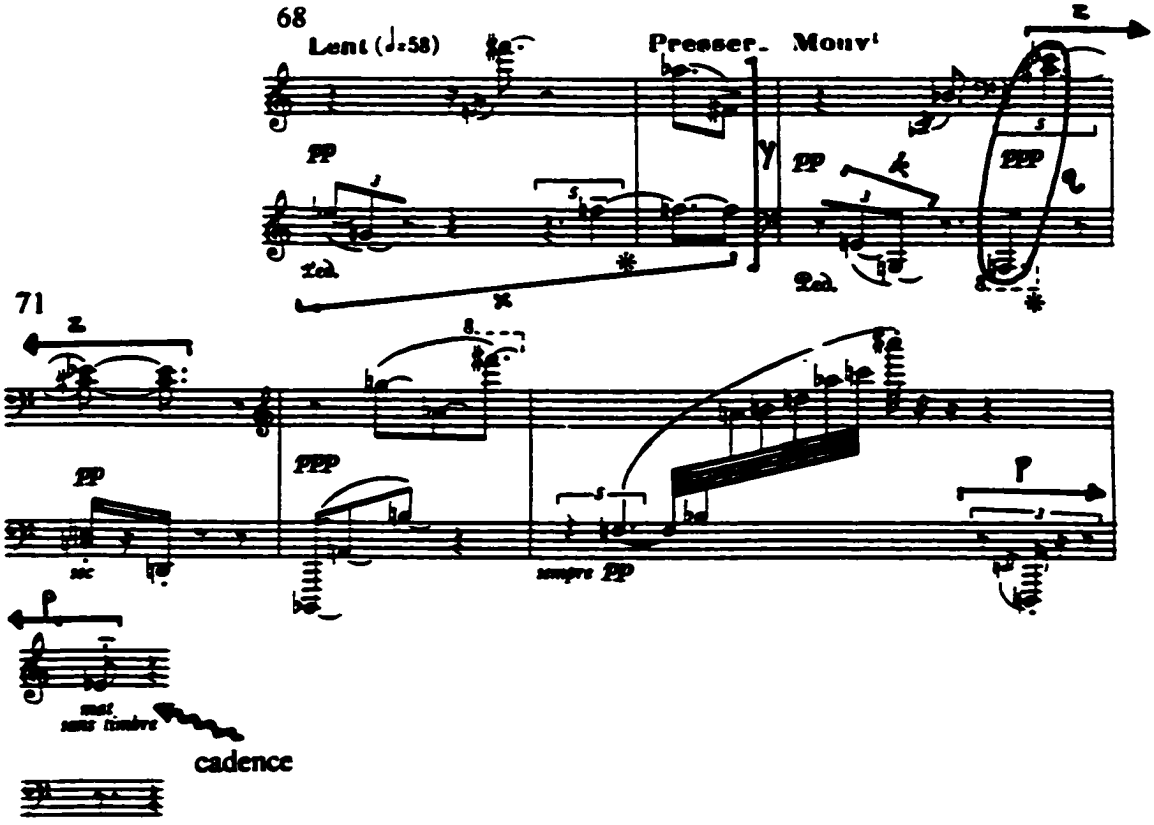
Example 43a. Boulez: *Première Sonate*, first movement, mm. 98-104; absence of cadence implies continuity of section.



Example 43a continued.

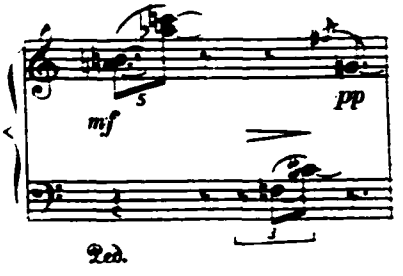


Example 43b. Boulez: *Première Sonate*, first movement, mm. 68-74; parallels with mm. 98-104 illustrated.

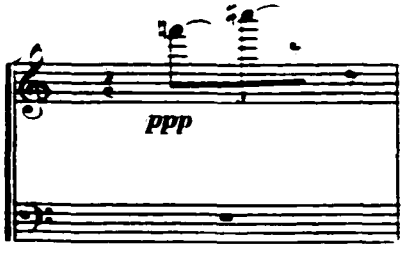


As a coda often recounts a compressed version of material from several earlier sections, it is fitting that the musical fragment of measure 105 should stem from a different origin than the music generating material for measures 98-104. In fact, this respelled minor sixth occurs for the first time in measure 25 – also as an augmented fifth. Measure 25 is a compelling precedent because it also contains a rare landing on the pitch G. The pressing toward G of the final five measures of the movement is intensified by an implicit recollection of the G that appeared after the original occurrence of the augmented fifth in measure 25.

Example 44a. Boulez: *Première Sonate*, first movement, measure 25; precedent for importance of G in final measures of the movement.



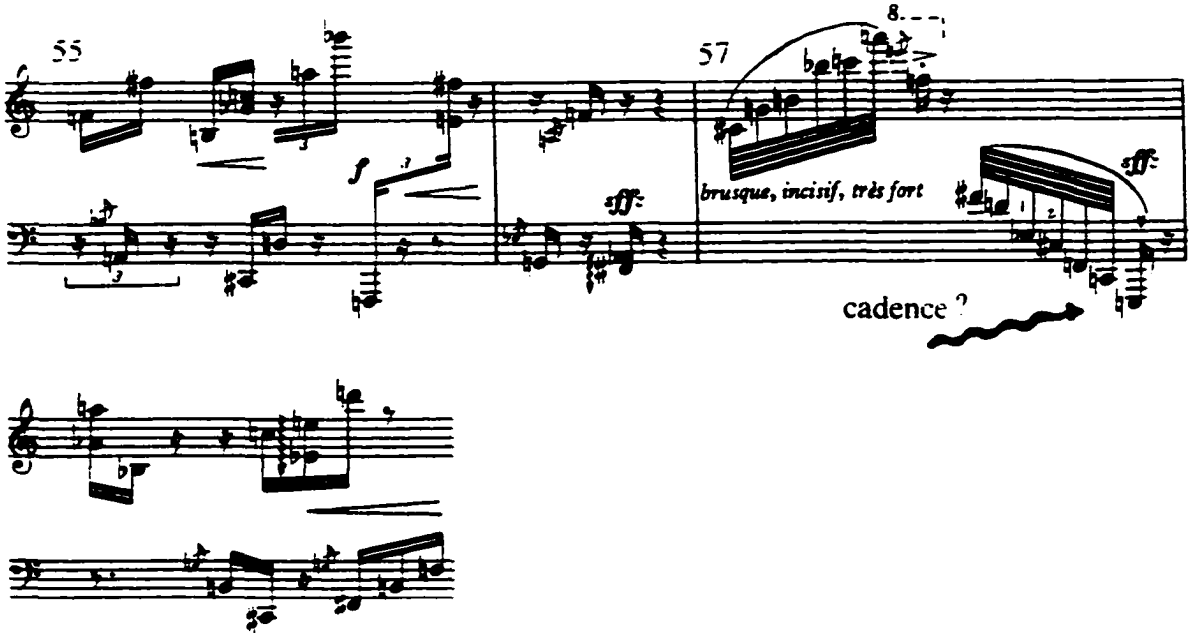
Example 44b. Boulez: *Première Sonate*, first movement, measure 105. Recollection of similar interval spelling in measure 25.



If, then, the above evidence leads to the performer's conception of the music from measure 98 as a coda, ample support certainly exists for a decision to consider these last thirteen measures as an unbroken line without cadence. The difficulty of positively identifying a cadence in the coda turns out to be useful in reaching a decision regarding the performer's interpretation of the section.

The *beaucoup plus allant* material discussed in connection with measure 97 provides, throughout the first movement, an active contrast to the *lent* motive presented at the outset. Due to their loping character and vigorous yet unpredictable nature, the *beaucoup plus allant* sections tend not to cadence. Rather, these portions offer a continually moving, disjointed response to the original motive; quick sixteenth notes and triplets generally prevent the appearance of pauses in motion. (For an exception to this principle, refer to pages 52-53 for the discussion of measures 76-79.) The first *beaucoup plus allant* section begins at measure 46 and does not cadence until measure 67, the point at which the *lent* music returns. While there are a few gestures within this section that appear somewhat cadential (for example, that in Example 45 below), these are simply capricious moments that, taken in context, are of no formal consequence due to their brief nature and lack of supporting cadential elements.

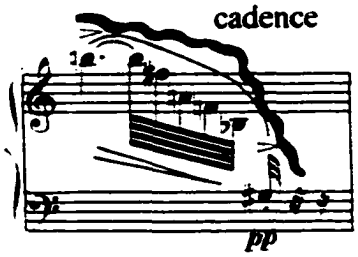
Example 45. Boulez: *Première Sonate*, first movement, measures 55-58; brief cadential sense without formal consequence.



While many of the cadences examined in this chapter are forceful and climactic, pages 54-55 make reference to both forceful and more reserved cadential characters in the first movement. We may, in fact, be led by the frequency of climactic cadences to hear vigorous and powerful moments in this movement as cadential. In order to disassociate the two, we shall conclude by studying several quiet cadences as well as one powerful, mid-phrase non-cadential gesture.

Measure 14 supplies the movement's first example of the diminutive, quick, *pianissimo* cadence outlined at the beginning of this chapter. After the swift establishment of the *sforzando* marking as a strong cadential symbol (measures 7 and 10 are the first two cadences in the piece, and both contain *sforzando* effects [see pages 58 and 51-52, respectively]), this new conclusion thwarts expectation by disappearing without warning.

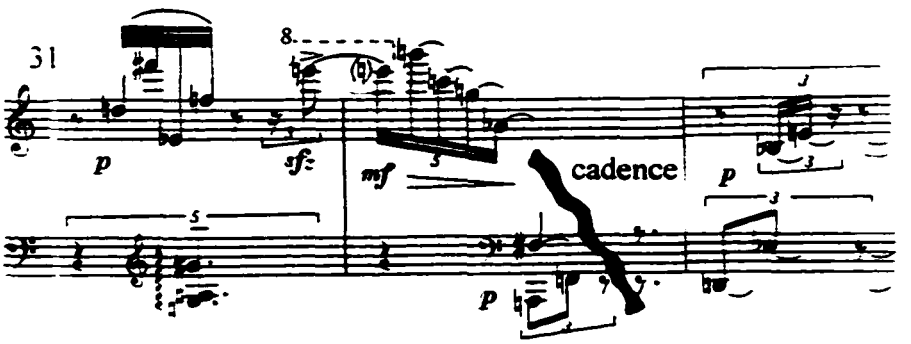
Example 46. Boulez: *Première Sonate*, first movement, measure 14; expectation thwarted by first quiet cadence of the movement.



At the same time, measure 14 hearkens back to measure 2, which contained several unfulfilled cadential signals. To call measure 14 cadential might seem to support the case for measure 2 as a cadence in its own right; however, as discussed above, the primary property lacking in measure 2 is establishment. After the consistent employment of pitch and rhythmic material for fourteen measures (not to mention the cadence's favored position at the close of the second of two seven-measure sections [4+3, 3+4]) it is unproblematic to name m. 14 cadential.

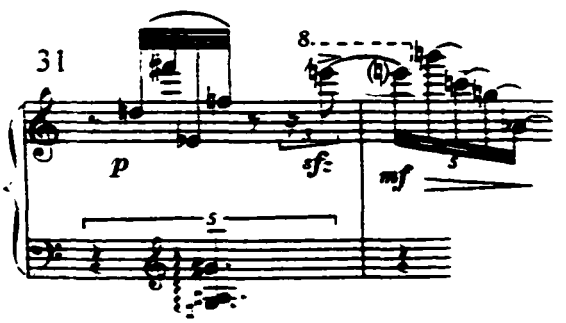
A similarly gentle conclusion characterizes the cadence occurring in measure 33. Amid a number of compellingly large gestures, the cadence in this passage takes place without fanfare; as shown in Example 47, the minor sixth figure is here employed as a link between sections rather than as the herald of a new entrance.

Example 47. Boulez: *Première Sonate*, first movement, mm. 31-33; cadential gesture bracketed; minor sixth employed as link.

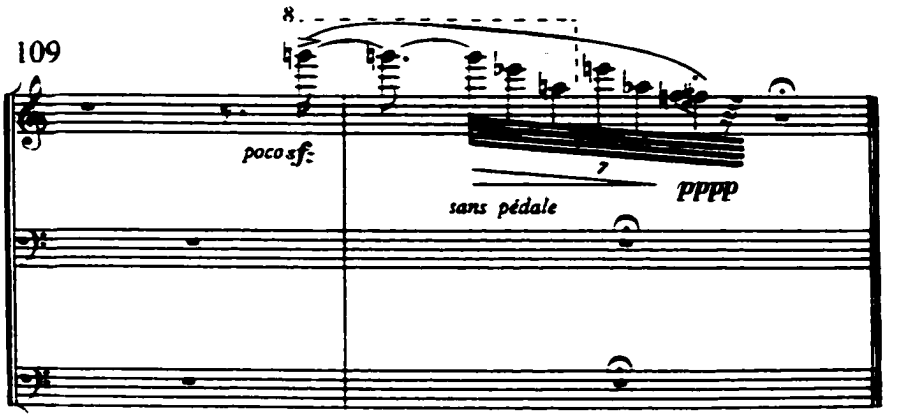


Several cadential factors enter in measures 31-32 to support its cadential sense: the setting apart of the gesture through silence pre- and post-cadence; the return of the motivic minor sixth as an aural cue; the general downward motion of the pitches involved; and the common *diminuendo* associated with the fall in pitch. In fact, this passage is very similar in dynamic contour to measures 109-110, as shown in Examples 48a and 48b.

Example 48a. Boulez: *Première Sonate*, first movement, mm. 31-32; dynamic contour similar to mm. 109-110.

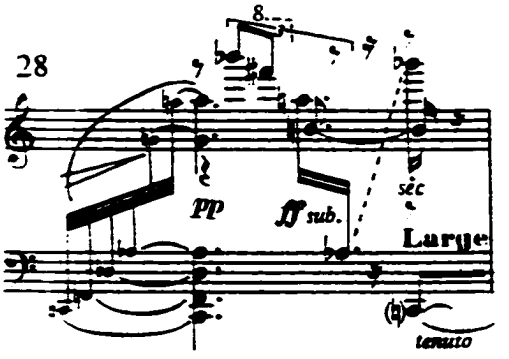


Example 48b. Boulez: *Première Sonate*, first movement, mm. 109-110; dynamic contour similar to mm. 31-32.

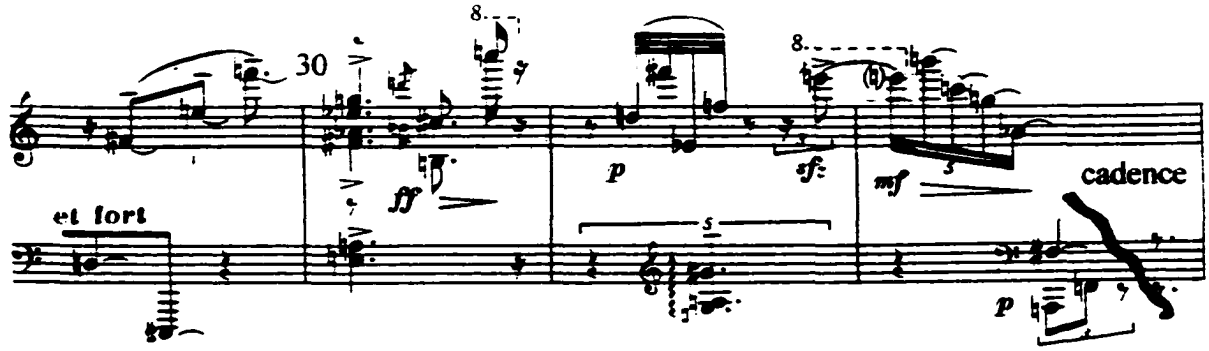


As well as the cadence of measure 32, the incidents which directly precede it are noteworthy; most compelling is the *large et fort* section in mm. 28-29. A remarkable slowing of motion takes place at this point, combined with a largeness of dynamic and of range. The tension is high, but rather than a pointed resolution at the *fortissimo* dynamic level, a *dénouement* takes place over the next several measures, concluding with the *piano* gesture of measure 32.

Example 49. Boulez: *Première Sonate*, first movement, measures 28-32; resolution postponed by means of *dénouement*.



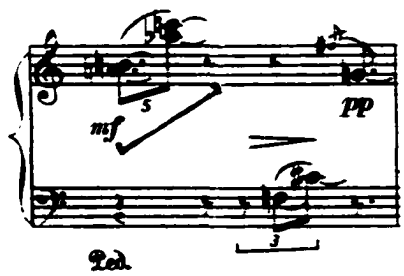
Example 49 continued.



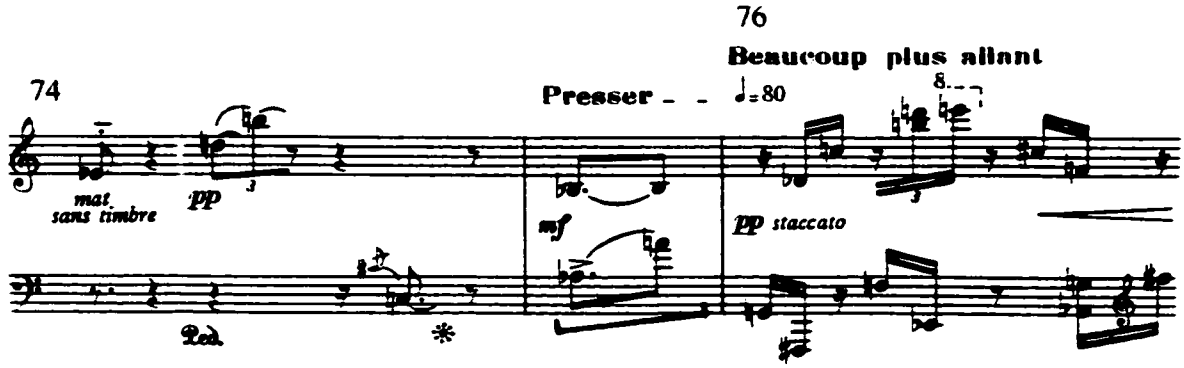
This is, clearly, a stark contrast to the immediacy of the cadential process of measure 10 (see pages 51-52); the surprising fact of resisting cadence in measure 29, where it could easily have taken place, gives a more demanding feeling to the extended passage.

Equally unexpected is the beginning of the build to measures 28-29, which takes place in measure 25. The quintuplet figure at the outset of m. 25 (see Example 50a below) is the first appearance of what will become, in later areas of the movement, a signal heralding new beginnings and nearly always marked *presser*. In fact, despite the dearth of transitions in this movement, this rhythmic figure may be considered as a (nearly imperceptible) transitional cue to move toward the next phrase without lingering. Example 50b presents a particularly persuasive instance of this sensation.

Example 50a. Boulez: *Premiere Sonate*, first movement, measure 25; quintuplet precedent for transitional figure shown.



Example 50b. Boulez, *Première Sonate*, first movement, measures 74-76; rhythmic figure as transition, encouraging motion forward.



As is apparent in Example 50a, the quintuplet figure is followed by a perceived repetition of the minor sixth motive. However, its spelling as an augmented fifth sets it apart and links it with its cognate measure 105, as discussed on page 77. In cognizance of the transitional nature of the quintuplet as well as the precedence for the minor sixth motive (convincingly followed by the dotted eighth with grace note) as a beginning, it may appear that a cadence exists here. Primarily responsible for the disproving of this possibility is the aural effect of the pedal in measure 25. With the pedal held from the beginning of measure 25 to the end of measure 26, the sense of these as an unbroken unit is strong. In addition, while it does not give an aural effect, the fact that the motive begins mid-measure and mid-beat subtracts from its potential as a phrase beginning.

The motive which begins the movement and which figures throughout is exemplary of the linked importance of intervals and of register in Boulez' music. Especially in the post-tonal context, as we have seen, aural approximations of motives and other critical elements appear; the use of variant motives implies a reliance on basic and immediately recognizable musical components (such as rhythmic pattern and interval size and direction) to preserve the essence and recognizability of the original motive. As

posited by Boulez, the structural function of compositional elements is both diminished and sharpened in the post-tonal era; likewise, their place in cadential formation has shifted demonstrably but retains its critical importance. [1]

III.

In the aurally and technically complex first movement of Boulez' *Première Sonate*, it is highly unlikely that two musicians would independently arrive at identical positions regarding cadential structure. Chapter 4 will discuss in greater detail the choices faced by the performer synthesizing an interpretation based on individual cadential determinations. The technical aspects of the performer's options and methods for execution will also be shown. In conclusion, then, let us note that the present cadential reading is intended to be neither definitive nor pedagogical. Rather, the arguments raised here are intended to elucidate the points elaborated throughout this work and to engage the reader in a clearer, more deeply theorized interpretation of the cadential process in demanding contemporary repertoire.

Endnote

[1] In his analysis of Stravinsky's *Le sacre du printemps*, Boulez refers to the repetition of slightly changing cells in *Les augures printaniers* as representative of one of the greatest phenomena on *Le sacre*; while Boulez claims that Stravinsky's compositional technique is weak in terms of thematic development, he finds that the renewal of rhythmic events, along with constant "rhythmic superimpositions," constitute a form of compositional development. Boulez opines that "the most important thematic phenomenon in *Le sacre* is the appearance of a rhythmic theme ... that achieves real existence inside a moveless sound-verticalization." That is to say, the successful creation of rhythmic themes not dependent upon verticalities of harmony or those of polyrhythm is unique to Stravinsky. While the cells of *Les augures printaniers* as discussed in Boulez' *Notes of an Apprenticeship* occur in immediate succession and those in Boulez' sonata generally do not, Boulez acknowledges the technique of cell- or motive-shifting both in prose and in his composition.

Chapter IV
Considerations for the Performer

I.

"'Was' and 'will be' must be in 'is.' What is finite must be carrying in it, with it, everything belonging to infinity. We who are becoming in time, therefore, must be able to see that which eternally 'is.'"

-- D. T. Suzuki, *Mysticism: Christian and Buddhist*

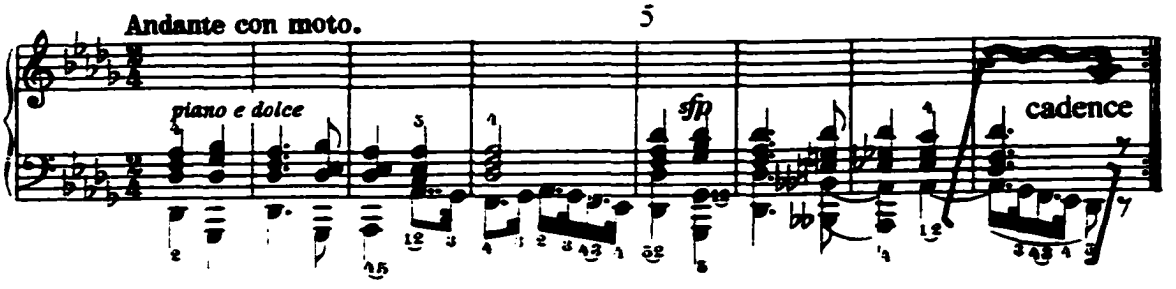
A principal reason for this study is to provide a methodical basis for performers to make informed cadential decisions; the performance implications of the cadential theory posited in the preceding chapters, then, deserve consideration. As with the introductory section of this study, it may be useful to draw a comparison between post-tonal cadences and their more familiar counterparts in the tonal realm; to this end, we shall here examine the factors contributing to performers' grouping choices in tonal and post-tonal music.

The ways in which performers mark their awareness of cadential function vary, necessarily, with the context of the cadence in several senses. Style, tempo, the clarity or concealment of the cadence as expressed in the written score, and the concomitance of specific cadential elements are all factors in the decision of the thoughtful performer. The position of a cadence at the outset, in the middle, or at the end of a piece of music may also impact performance choices.

Clearly, awareness of the theoretical context of a piece is a prerequisite for any performance decision. In some cases, a simple understanding of cadential placement may suffice to project it clearly; the knowledge that a cadence approaches is enough for an experienced musician to project the desired sentiment without a detailed plan for the

execution of each tone. Any particulars to be projected, regardless of stylistic concerns and other criteria, should adhere to one principle: the intentional preparation of the cadence. We recall that the listener's ability to anticipate is the primary defining element of a true cadence; in order that the listener may be privy to the performer's placement of this process, the perceptible and well-executed cadence begins not in the cadential moment but considerably before it. For instance, the Beethoven passage shown in Example 51 cadences in measure 8; however, if one were to attempt to project this cadence only in measure 8, one would fail. Rather, it is necessary to prepare the cadence in some manner.

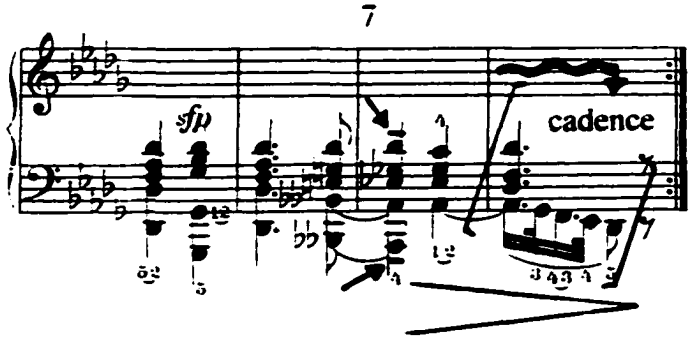
Example 51. Beethoven: Sonate, op. 57, second movement, mm. 1-8. Cadential preparation is necessary in order to project the cadence in measure 8.



As is clear from the *sforzato* in measure 5, the second part of the passage shown is immediately distinguished from the first part by means of a mid-measure emphasis. Moreover, the consequent (measures 5-8) contains an obvious change in voice-leading: the addition of constant D-flats until the arrival on C from the 4-3 suspension in measure 7. These features, along with the added octave in the left hand from measure 5 onward, make the cadential path simple to follow. The ear of the listener is attentive as the

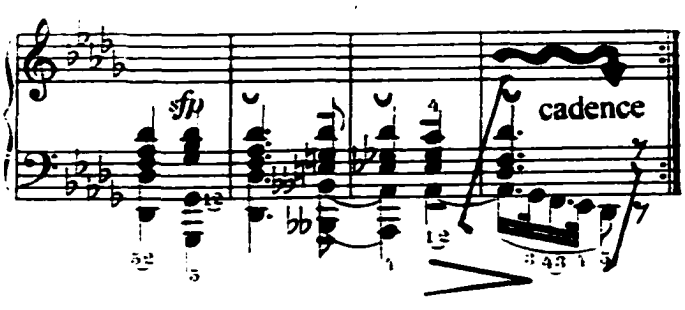
cadence approaches, and the task of the performer (should he or she choose to accentuate the cadential process) is fairly easy. One possibility is the placement of emphasis on the first chord of measure 7 with a *diminuendo* through measure 8, signaling a *dénouement* due to the resolution of tension after the 4-3 suspension in measure 7 (see Example 52).

Example 52. Beethoven: Sonate, op. 57, second movement, mm. 5-8; added markings highlight the cadence through a strengthened sense of *dénouement*.



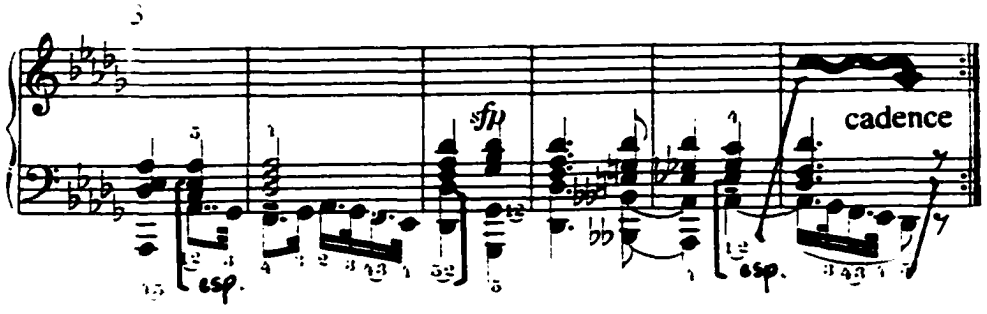
As an alternative to the above, one might simply wish to decrease the weight given to the strong beats of each measure, as shown below in Example 53. This stresses the departure from and return to tonic, also giving the impression of a *dénouement* in measure 8.

Example 53. Beethoven: Sonate, op. 57, second movement, mm. 5-8; added expressive markings enhance the sense of departure and return through emphasis of the foreign chord between two tonic chords.



Another interpretive option, also beginning several measures in advance, involves simply bringing out the left hand beginning in measure 3 or 4, as shown in Example 54, and either resuming this emphasis when leading up to the colorful left-hand episode in measure 8 or continuing it throughout the passage.

Example 54. Beethoven: Sonate, op. 57, second movement, mm. 5-8; emphasis of left-hand tones in bracketed passages focuses the ear on the moving line toward cadence.



The clear projection of the left-hand tones in measure 8 can certainly contribute, with their scalar falling motion, to the cadential sense; in terms of the cadential components discussed in this study, the present choice permits the performer to enhance the cadential elements of contour, changed activity level, phrasal repetition, dynamic, duration, texture, and articulation.

Of all three ideas outlined above, or of any combination of techniques to bring out a cadence, the most important point is the anticipation of the performer – the intention to reveal these techniques in advance, as prelude to the cadence.

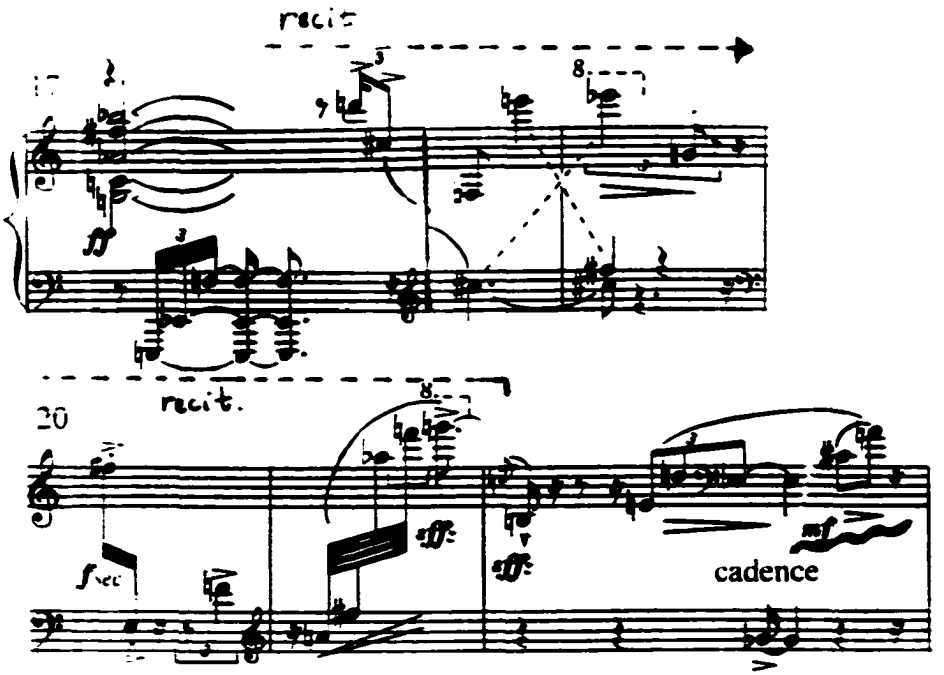
II.

The focus on giving an advance impression of approaching cadences is nothing short of essential for performers of post-tonal music. The preceding chapters, through cadential analysis and use of clarifying examples of cadential decisions, have focused on determining the placement of cadences and on the elements by which we may more surely detect those cadences. After having devised a cadential scheme, the performer is left with the task of making cadential choices clear to an audience. The first section of this chapter has introduced the process by which music will be examined for its performance implications; we proceed in this second section to re-examine a number of cadences from the two pieces already discussed in order arrive at several examples of interpretive possibilities. Ultimately, the aim of this chapter is to facilitate the projecting of cadences and sectional delineations, even in the absence of unmistakable evidence from the score. It is in the absence of transparent compositional guideposts that it is most necessary for the listener to receive a sense of interpretive certainty from the performer.

The first movement of the Boulez *Première Sonate* presents a number of difficulties: transitional material is rare and, when it appears, may be aurally unclear; motivic continuity is present, yet can be misleading contextually; formal clues pass by rapidly and without preparation. Likely the most helpful directives in the movement come not from the staves, but from the worded guidance above them. The performer may wish, in this case, to find a way to translate the words Boulez provides into a musical communication that will be understood by the audience.

The first step in clarifying one's cadential interpretation requires an understanding of broad generalities regarding methods of showing, simply, which sections of music are continuous and which moments constitute a delineation between two sections. For instance, the *recitative* section (see Example 35 and pages 64-65 for analysis) from measure 17 to the downbeat of 22 is a unit to be executed with continuity. In this passage, there are no worded expressive cues, but the reference to *recitative* serves as a directive which we shall attempt to translate into terms of performance. In the passage at hand, the performer contends with rests, the marking *sec* (measure 20), great registral leaps, and other elements which threaten the flow of the music.

Example 55. Boulez: *Première Sonate*, first movement, mm. 17-22. Discontinuous musical elements such as rests, abrupt articulation and registral leaps threaten the flow of the musical unit.



Faced with such challenges, one has three tools at one's disposal in order to promote continuity: the connected execution of intervals, no matter their size or

articulation; the use and finesse of the printed dynamics along with tone color; and the method of connecting notes across rests. These tools are admittedly abstruse, yet their use can define a convincing performance.

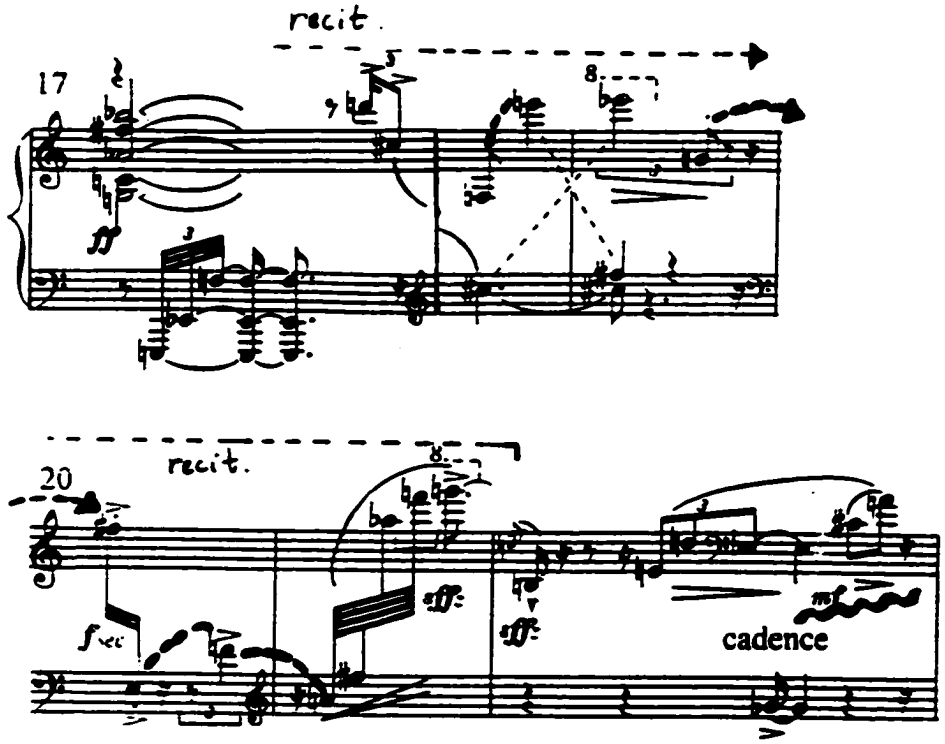
As in the Beethoven passage discussed above (Examples 51-54), the intensity of the connection between performed intervals contributes greatly to the listener's sense of continuity among notes. This intensity stems from a number of sources: subtle dynamic shading; indiscernibly small temporal spaces or hurrying between two pitches; speed and width of vibrato, if the instrument permits; and, most importantly, the performer's hearing of the relationship between each successive pair of pitches or chords.

The intensity of an intervallic connection endures even across the space of several octaves, regardless of dynamic level. It is not a question of volume, but one of orientation toward a goal. (Dynamic level may, however, be used as an element of continuity that remains the same across intervallic space or across a rest.) The intensity of connection is also not to be confused with *legato;* it can be performed in the context of any style of articulation. The connection a performer may make between two single pitches is similar to the arching of a phrase toward its pinnacle several measures later: it allows the listener to aurally lean toward what he knows is approaching before actually hearing the attainment of the musical goal. In this, intense intervallic connection also bears resemblance to the concept of preparing a cadence.

In the Boulez passage shown in Example 55, the intensity of intervallic connection is one means by which the performer can work against the passage's discontinuities of, for example, register, in order to present the passage as a cohesive unit. (While the operatic recitative is often marked by frequent disruptions, this need not alter

the performer's aim to show measures 17-22 as a single musical entity.) Example 56 outlines several moments during which intervallic connection may be key to retaining continuity across barriers in the score. (Note Boulez' explicit markings connecting two pairs of pitches in Example 56; notable is that bridging C# and E-flat across the attacks of two intermediate pitches in measures 18-19.)

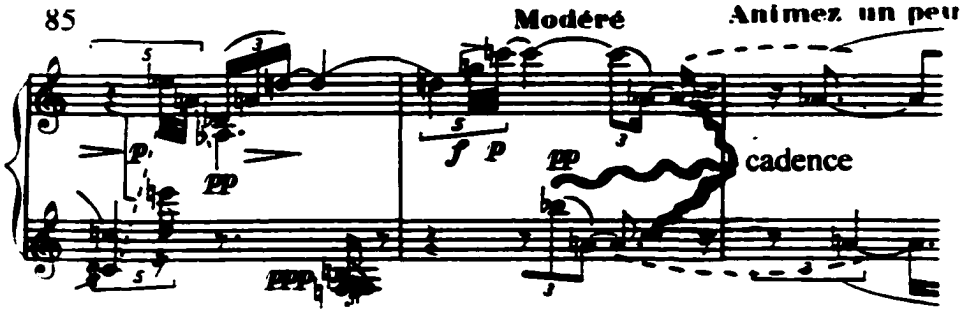
Example 56. Boulez: *Première Sonate*, first movement, mm. 17-22. The marked intervals, performed with intensely executed intervallic connections, are among those which can alter the listener's hearing of continuity in the passage.



Another means of retaining continuity across register and rests is the use of subtly shaded dynamics and tone color. The link produced by the return of an exact replication of dynamic or a mirror of tone color after a temporal or registral break is undeniable. Boulez sometimes encourages this manner of continuity in the score; while it is a

technique that can be used in numerous contexts, the clearest example in the *Première Sonate* is in the second movement: the link between measures 86 and 87 (see Example 57 as well as analysis on pp. 5-7). In measure 87, the two pitches A and A-flat reappear singly, as they did in measure 86. Although a new musical section has begun (this is clear from the marking *animez un peu* in conjunction with the significant rest and the slurs which separate the two dyads and connect the bodies of both phrases), a new dynamic is not specified. (It is possible to view this moment as an elision, but this would more likely take place at an overlap of simultaneous pitches.) In a score filled with quite specific markings and dynamic indications, this is very significant.

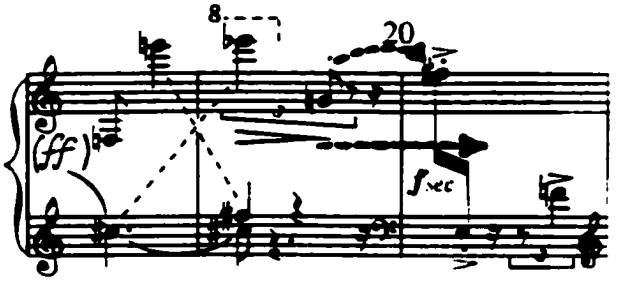
Example 57. Boulez: *Première Sonate*, second movement, mm. 85-87. Continuity of pitch, voicing, and lack of new dynamic marking in measure 87 encourage a seamless performance across the rest and the barline.



Example 57, above, shows Boulez' implicit encouragement of connection between two musical sections; the technique of enhancing this connection may be equally applied to the first movement passage in Examples 55 and 56, in which rests and register give less clear a signal and make seamlessness more difficult to project. For example, measures 19 and 20 of the first movement present themselves rather disjointedly, with a

very wide range of pitches and several fragmented groups of notes isolated by rests as well as three different articulations. However, with precision of articulation and dynamic consistency, a sense of continuity can be achieved throughout.

Example 58. Boulez: *Première Sonate*, first movement, mm. 18-20. Rests and articulation isolate the pitches, but dynamic consistency and precise articulation can provide a more seamless presentation.

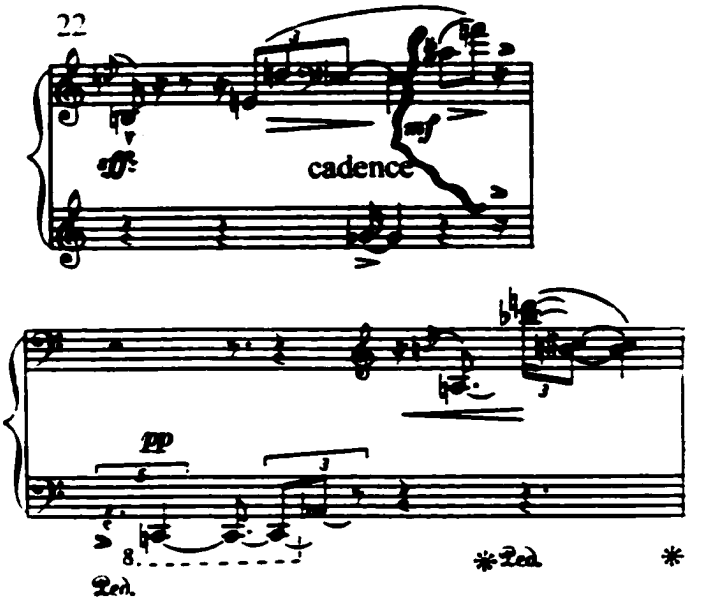


The *forte* marking at the beginning of measure 20, along with a *sec*, accented pair of sixteenths preceded by a brief rest, seems at first to entail separation between measures 19 and 20.[1] However, taking into consideration the *fortissimo* of measure 17 with *diminuendo* in measure 19, it appears that the dynamic element is continuous through measures 19 and 20. (It is also possible that the *diminuendo* in measure 19 lowers the dynamic to an unspecified level, and that the *forte* sec of measure 20 represents a resumption of a stronger dynamic.) There is no change in texture over the barline, remaining mostly a passage of notes articulated singly; while the *sec* of measure 20 does represent change from measure 19, the retention of the *staccato* marking through the first two notes of measure 20 indicates a transition of articulations rather than a sudden shift. In fact, then, the elements of dynamic, texture, and articulation favor continuity over

change. The matters of the rest and of the large change in register become less daunting in comparison, and these difficulties can be overcome with attention to the connection between pitches rather than emphasis on the space between them.

A few bars later, in measure 22, the cadence begins to announce itself. The connection between pitches again becomes important, but emphasis on the space between notes (or "accenting the rest") may be desirable at certain points in the cadential process. Emphasizing the rest – through slightly lengthening it, giving it importance by means of a somewhat dulled attack on the note directly preceding it, or by other methods – imprints heard sounds more firmly in the listener's memory during the silence. The pause in motion created by such means can provide a moment of repose, even if in a time of musical tension, during which the listener may briefly reflect on recent musical events. This may enhance the power of the cadence, especially if the character of the cadence is to be reinterpreted based on the music that follows. Due to the "Neapolitan" nature of the cadential process in measure 22 (see pp. 65-66 for analysis), the rest at the end of the measure is particularly significant. If the rest is "accented," the listener is provided with the time and silence to (if unconsciously) consider the C# to A – the rising minor sixth – and its relationship to the opening of the movement. In this way, the significance of the following "tonic" interval, C to A-flat, is highlighted.

Example 59. Boulez: *Première Sonate*, first movement, mm. 22-23. Emphasizing a rest during the cadential process may enhance its power.

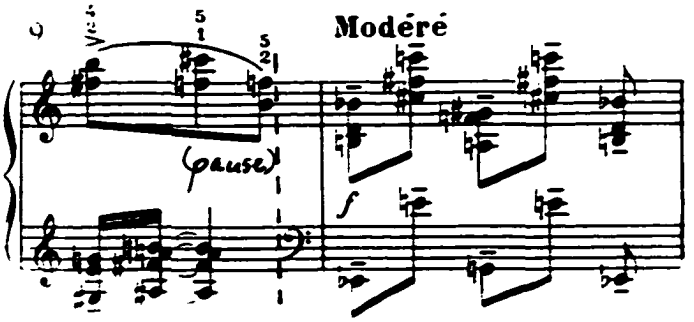


As Examples 58 and 59 show, the performer's treatment of a musical rest – while rests may appear to be an element difficult to control – can transform the sense of the music surrounding that rest. A rest may be treated in nearly as many different ways as a note, through similar methods of articulation, dynamic expression, timing, and intervallic expressivity.

In Messiaen's *Île de feu I*, especially after measure 6 and the end of regular, easily detected cadential motion (see Table 1, page 19), rests are notated less frequently than in the Boulez *Première Sonate*. For instance, not a single rest is notated between measures 7 and 17. This does not necessarily indicate that the music is more continuous; rather, it gives the performer more freedom to determine the level of continuity that he or she wishes to project at a particular moment.[2] The barline between measures 9 and 10 of *Île de feu I* is such a moment; while the passage discussed here does not include a cadence,

the pause in motion and its context are similar to a cadential area. This particular passage presents an interesting problem for the performer.

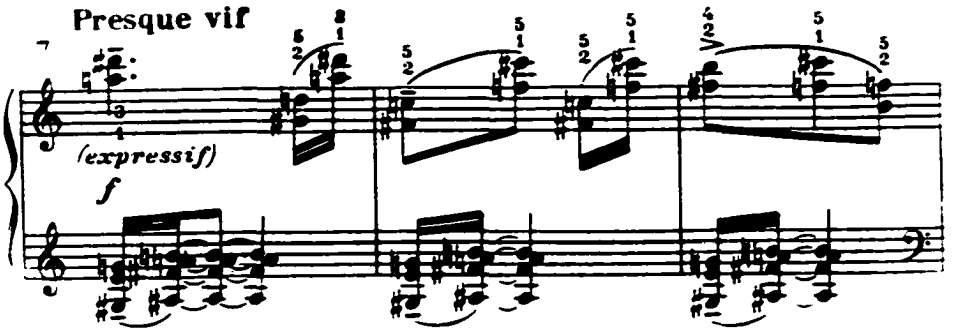
Example 60. Messiaen: *Île de feu I*, mm. 9-10. In a passage without pedal, the necessity of shifting both hands to another region of the keyboard presents the opportunity for a pause in motion.



At the moment shown in Example 60, the performer may choose between accentuating the natural pause in motion or reducing it. The methods of physically projecting either choice are quite like those discussed in conjunction with the two Boulez passages in Examples 57 and 59, with their contextually different rests.

Indications in the score affecting measures 9 and 10 support either minimizing or emphasizing the pause in motion. In support of continuity between measures 9 and 10 – that is, minimizing the pause in motion in favor of a smooth transition – are the regularity of the simple triple pulse (with one extra eighth note in measure 7) and the motivic repetition of the left hand (measures 7-9). In the entirety of *Île de feu I*, in fact, this is the only passage in which three consecutive measures approximate the same clearly pulsed metric scheme:

Example 61. Messiaen: *Île de feu I*, mm. 7-9. The only point in the piece at which three consecutive measures move in approximately the same clear, regular pulse.

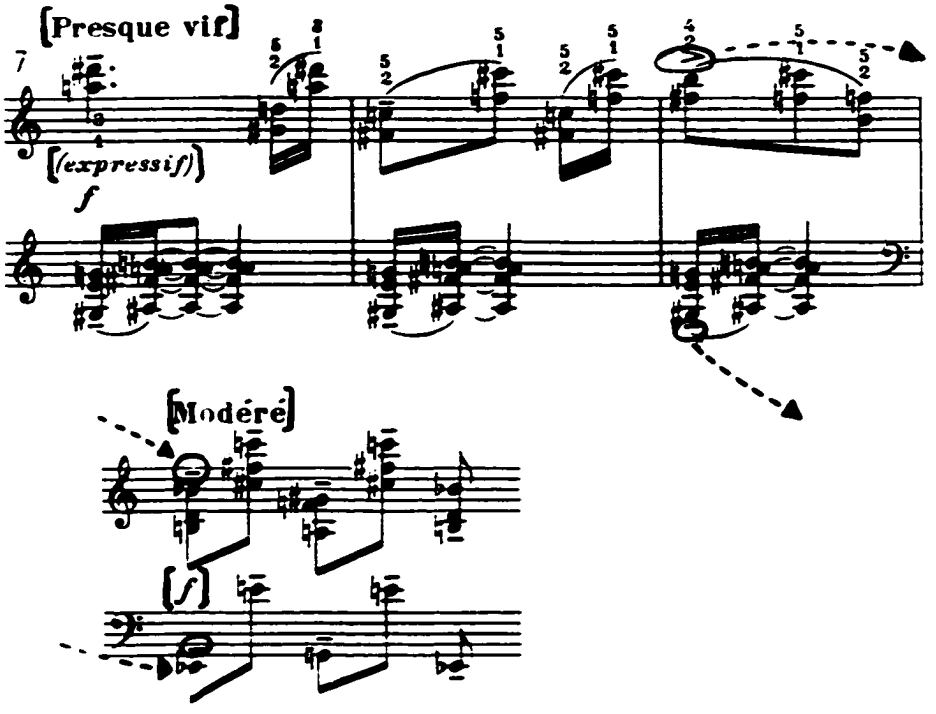


The clarity of the pulse in Example 61 is conveyed by means of the repeated left-hand figure and by the placement in both hands of either a *tenuto* or an accent on beat one of each measure in the passage. The downbeat of measure 10, as well, possesses a stress marked in both hands.

Also supporting a continuous performance across the barline of measures 9-10 is the fact that the dynamic does not change. Should the performer wish to project a link between the two measures, sufficient indications in the score are present to support this interpretation.

On the other hand, the *forte* of measure 7 does differ from the *forte* of measure 10: the former is qualified with the word *expressif*; the latter is not. While the dynamic remains the same in measure 10, the term *expressif* and its subsequent omission may be interpreted as a call for a change in the quality of the performer's touch. Although Messiaen could have chosen to use a new mark of articulation beginning in measure 10 and did not, it may be inferred that the intention of the *tenuto* changes in its new context in measure 10.[3] In addition, there are the more obvious shifts of register and of *Presque vif* to *Modéré*.

Example 62. Messiaen: *Île de feu I*, mm. 7-10. A smooth transition into measure 10 is indicated by the retention of dynamic and articulative markings; a break is implied by changes in register, tempo, and the end of the *expressif* section.

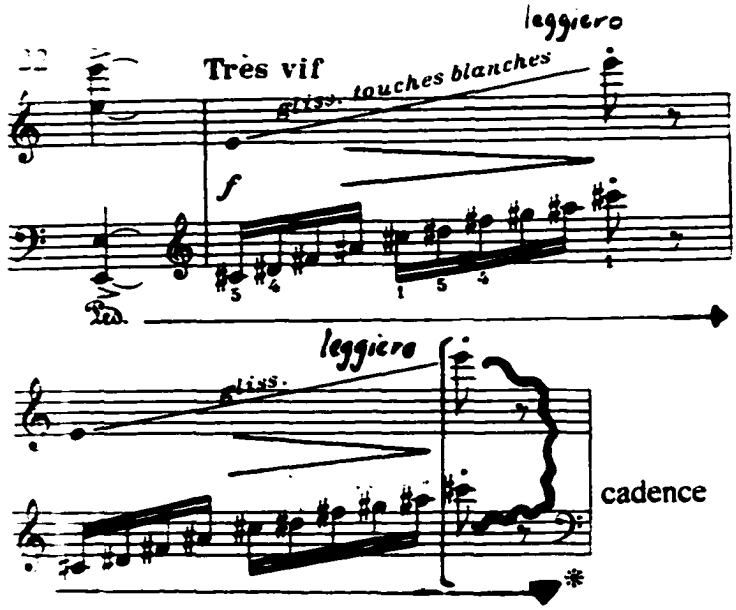


In each example discussed thus far, the interpretation chosen by the performer should be chosen after a careful weighing of signals from the score; as is clear from the contrary meanings that can often be gleaned from a score's expressive markings, even two starkly contrasting interpretations may usually be supported by the composer's directions. In the case of measures 7-10 of *Île de feu I*, the performer may decide that the regularly pulsed passage is a moment of calm, to be distinguished from the long and breathless torrent that proceeds from measure 10 toward the return of the full subject at measure 20. Equally, measures 7-9 may be heard as lilting blindly into measure 10, as the first sign of the mania which ensues. As it happens, the performer's treatment of a simple shift of the hands may have a strong effect on the audience's hearing of a key passage of the piece.

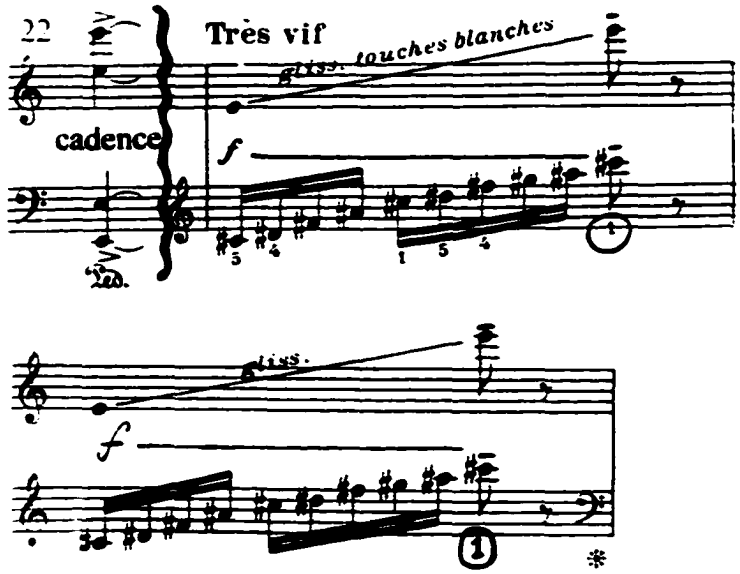
As we have seen, even rests in the music present an opportunity for the performer to make interpretive decisions. This holds true for the cadential extension that takes place between measures 22 and 25 of *Île de feu I* (see pages 31-33 for analysis).

The performer of *Île de feu I* may make use of several rests in mm. 23-24 in order to solidify a cadential interpretation. Again, the question of articulation is an important one, and Messiaen's pedal indications leave ample latitude for the pianist to smoothen or separate the components of the passage. The performer's articulation of the eighth note preceding each eighth rest in measures 23 and 24 can enhance either hearing. Should the performer believe that the two measures are an extension of the cadence in measure 22, a slight *diminuendo* at the close of each *glissando* lessens the impact of the landing points indicated on the eighth notes below, especially along with a glossing and slight shortening of the eighth notes (see Example 63a). This interpretation is supported by the holding down of the pedal which Messiaen indicates from measure 22 through the eighth rest at the end of measure 24. Should the performer choose to project each measure as a separate event, a full-length eighth note remaining fully at *forte* demarcates each double *glissando*. This results in a very different sensation, and is supported by the detailed fingerings indicated in the left hand of measure 23; landing each C# on the left thumb (see Example 63b) encourages a distinct articulation of the note. (It is also interesting to consider the implication of the pedal release placed at the end of measure 24 rather than along with the release of the C#-E dyad one eighth note earlier.)

Example 63a. Messiaen: *Île de feu I*, mm. 22-24. The added articulation and dynamics give the impression of continuity through a cadential extension.



Example 63b. Messiaen: *Île de feu I*, mm. 22-24. The added articulation, leaning on the left thumb (note fingering of left hand), and the literal execution of the written dynamics result in aural isolation of each measure, despite the held pedal.



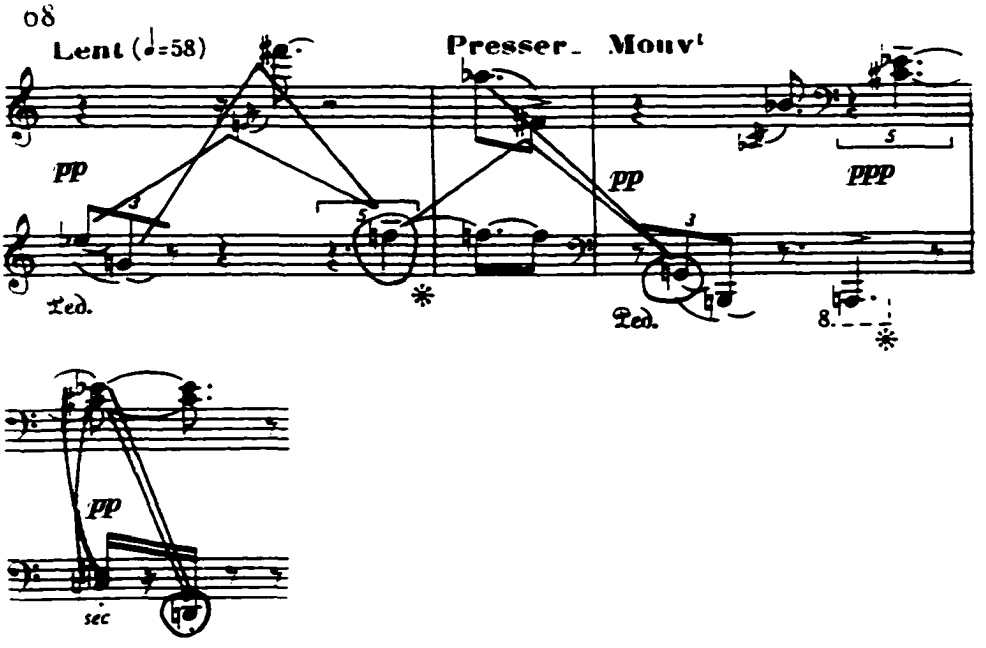
As shown in Examples 63a and 63b above, the performer's enhancement of certain of Messiaen's performance directions entails the minimization of others while

effectively determining the moment at which the listener will hear a cadence in the passage.

Like Messiaen, Boulez gives precise indications in his *Première Sonate*, and mid-phrase changes in tempo and expression require a thoughtful approach. The passage from measure 68 to measure 75 of the first movement is filled with worded directions as well as incomplete references to musical events both past and future. As discussed in Chapter 3 (see pages 60-62 for analysis), the downbeat of measure 74 marks the completion of the passage's cadence; while much in the preceding six measures is left to the performer, the cadence itself is clearly defined and separated from what follows. Indeed, the direction *mat, sans timbre* indicates that a dull and non-resonant attack should characterize the E-flat at the beginning of measure 74; this makes the accenting of the quarter rest that follows nearly effortless. (See pages 96-97 for an explanation of accenting rests.)

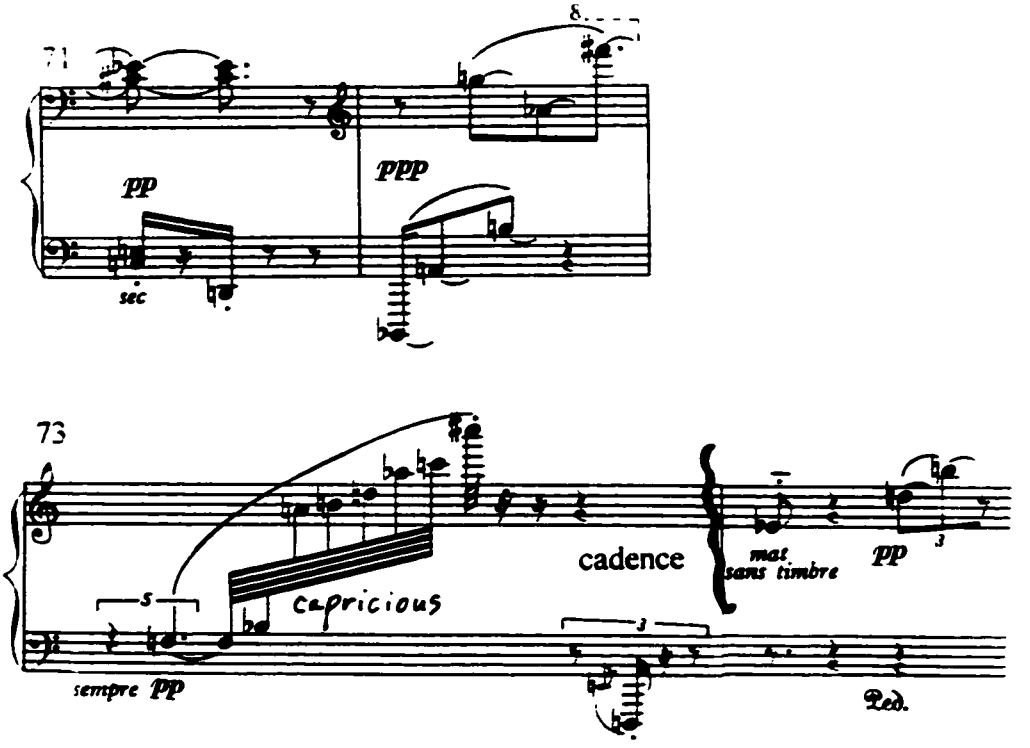
Again, the performer's task is to anticipate the cadence and to make its approach as clear as possible for the listener. Measures 68-71 consist largely of short, goal-oriented fragments (see pages 66-69 for analysis of the chains of inverted dyads which, in this instance, converge successively on the pitches F, G, and D as illustrated in Example 64). Each of these linked events takes place in a *pianissimo, legato* context with opportunities for only the most subtle projections of rise and fall. The performer's opportunity to show the approach of pre-cadential change begins just at measure 71 with the *sec staccato* notes in the left hand.

Example 64. Boulez: *Première Sonate*, first movement, mm. 68-71. The *pianissimo, legato* atmosphere permits only subtle interpretation of the score; *staccato* notes in the left hand imply the changes to come. Convergence of dyad chains on F, G, and D marked.



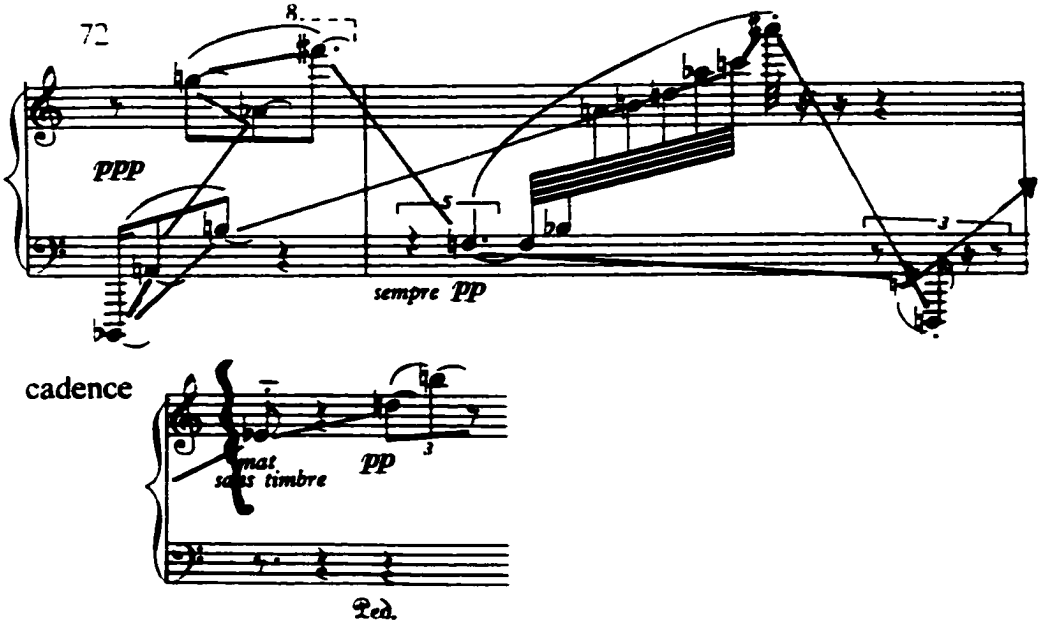
The *staccato* notes do not reappear until the middle of measure 73. However, at this point they draw more attention; while the notes are again *pianissimo*, the dynamic of measure 73 has increased from *pianississimo* in measure 72; thus, this dynamic change represents a return to the prevailing *pianissimo* level. The introduction of sixty-fourth notes in measure 73 is also significant as it represents decreased rhythmic predictability. In order to enhance this characteristic, the performer may wish to project a capricious sensibility; the contrast with the *lent* music of measure 71 and its familiar rhythmic pattern provides a chance for the performer to amply prepare for the cadence on the downbeat of measure 74.

Example 65. Boulez: *Première Sonate*, first movement, mm. 71-74. Dynamic difference of the passage is limited; expressive contrast comes mainly from the *staccato* notes in mm. 71 and 73 and from the rhythmic unpredictability of m. 73.

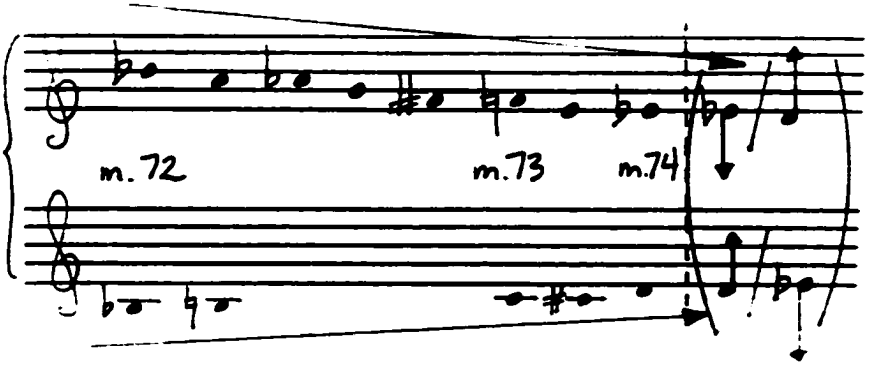


The rests isolating each burst of measure 73 are useful as dramatic elements, but the measure may be best performed as a series of connected intervals; the intensity of the connection between intervals again becomes key here if the performer wishes to project the arrivals of several more converging IC1 sets. As shown in Examples 66a and 66b, the converging dyads are still at work in mm. 72-73 but are somewhat more difficult to detect. Interestingly, this particular chain of dyads is unique in that its goal is not a single pitch, but the space between D and E-flat, arguably the two most important pitches in the movement. E-flat appears as the cadential climax, flanked, most unusually, by two appearances of D.

Example 66a. Boulez: *Prèmiere Sonate*, first movement, mm. 72-74. The chain of dyads leads jointly to the pitches D and E-flat.



Example 66b. Pitch relationships, mm. 72-74.



While the IC1 dyad chains shown in Examples 66a and 66b may be unclear to many listeners, the sense that the entire *pianissimo* passage is driven should be projected as strongly as possible. This may be accomplished, again, by intensifying the connection between intervals; additionally, one should be sure to take advantage of the *Presser* at measure 69 to reduce the feeling of relaxation which may be produced by the slow tempo and the familiarity of the musical material presented at measure 68.

In each of the passages examined in this chapter, emphasis has been placed on several techniques of which the performer should be aware in order to best communicate both the musical messages of the score and one's own interpretation. In the music of Messiaen and Boulez as well as that of many other post-tonal composers, the worded markings of expression tend to be especially revealing. The character of cadences, and, in some cases, the very placement of the cadences, is often determined by the performer's choice to emphasize certain aspects of the written music. As we have seen, the choice to stress one performance direction may result in the minimization of the effect of another. A few words should be said regarding this point of choice in performance and its implications.

It is a necessary truth that the performer must sometimes choose to emphasize certain performance directions over others. Acceptance of this fact implies that the musical score, as a rule, does not consist wholly of immutable symbols and words indicating precise directions which are understood and followed equally by all performers. As distinguished from a poem or a novel, a musical score expressed in its intended form requires the attention and interpretation not only of the audience, but of a "middleman" who imposes a second (hopefully, not contrasting) mode of transmitting the artwork to receivers. To be sure, some composers are more open than others to divergent performances which may not reflect their original aims; additionally, some performers are more willing than others to adhere to the score. In any case, there is a point at which the written score (of even the most meticulous composer) cannot further convey musical instruction. It is important for musicians to consider for themselves whether – and to what extent – the musical score contains an "authentic" interpretation coded indisputably

into the words and symbols therein.[4] In addition, the more difficult the task of placing, classifying, or interpreting a cadence – or any musical item – the more engaging is the performer's mission to project a well-considered and well-marked cadential preparation for the benefit of the listener.

Preparing the cadence so that the listener may anticipate its arrival is likely the most important step that the performer takes to elicit understanding of a piece's large-scale form, continuities and divisions. In this chapter, discussion of the methods of engaging the listener pre-cadentially have largely centered around a number of simple concepts: the intense projection of important intervals as such; the different uses of rests as joining bridges or as barriers erected to separate disparate musical sections; the use of articulation to further the performer's interpretation within the bounds of the score; the shading of dynamics and tone color to effect the desired phrasing and connections; the balancing of unusual registers and contours to augment the effect of approaching cadences; the mere understanding of the elements that contribute to cadential gestures; and, most essentially, the musical anticipation of the approaching cadence.

The above elements – those which the musician invokes in performance to clarify his or her own interpretations – are precisely those regarded from the outset of this study as the elements determining cadential placement, those listed in the introductory chapter as compositional clues for the performer seeking to form an analysis. It becomes clear, then, that the elements we examine for their instruction to the performer are at the disposal not only of the composer; they are, likewise, the tools of the discerning performer in pursuit of lucid musical communication.

Endnotes

[1] Should the performer wish to project a small break between measures 19 and 20, the elements of articulation and register would support the interpretation as appropriate, especially in the context of the *recitative*: a singer would certainly need to breathe at some point between mm. 17 and 22. However, this moment is certainly not a cadence, and we therefore treat it (because without determined effort on the part of the performer, it will not be heard as such) as a unit to be projected as continuous until the cadential gesture begins in measure 22.

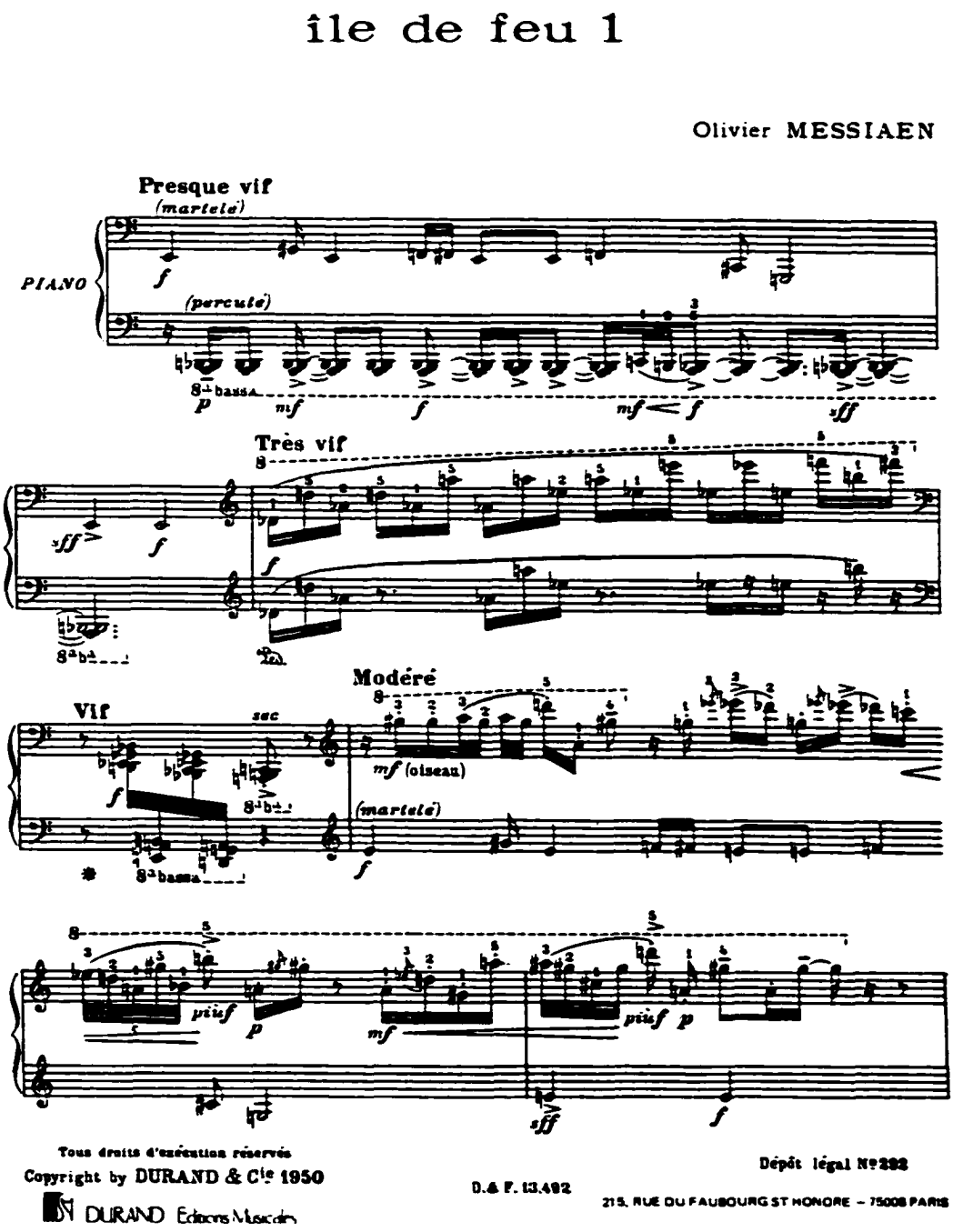
[2] It is worth noting that Messiaen's piano pieces often contain non-notated rests of necessity; Messiaen gives very specific pedaling directions, and sometimes great registral leaps for both hands appear in the midst of passages without pedal. These occurrences are frequent enough and appear predictably enough that (certainly in the case of a keyboard virtuoso such as Messiaen) they are clearly intentional. In these cases, rests do not serve a rhythmic function; they do, however, provide a pause in motion.

[3] A series of *tenuto* marks such as that in measure 10 also implies non-*legato*. This, too, contrasts with measures 7-9.

[4] A number of scholars address this issue; in his *Meter as Rhythm*, Hasty claims that indeterminacy is inherent in temporal acts (for instance, the performance of a piece of music), and that the abstractions of analysis may therefore limit or deny the creative, spontaneous nature of performance. Hasty recommends a shift in thinking from the (static) product to the (dynamic) process, as some things musical cannot be captured in a graphic representation. Janet Schmalfeldt (1985) states unequivocally that "*there is no single, one-and-only performance decision that can be dictated by an analytic observation*" (italics hers). Schmalfeldt (1992), however, quotes Carl Schachter as never endorsing "two different, mutually exclusive, and equally valid" interpretations of the same passage. He argues for only one plausible result.

Appendix A

Messiaen: *Île de feu I*



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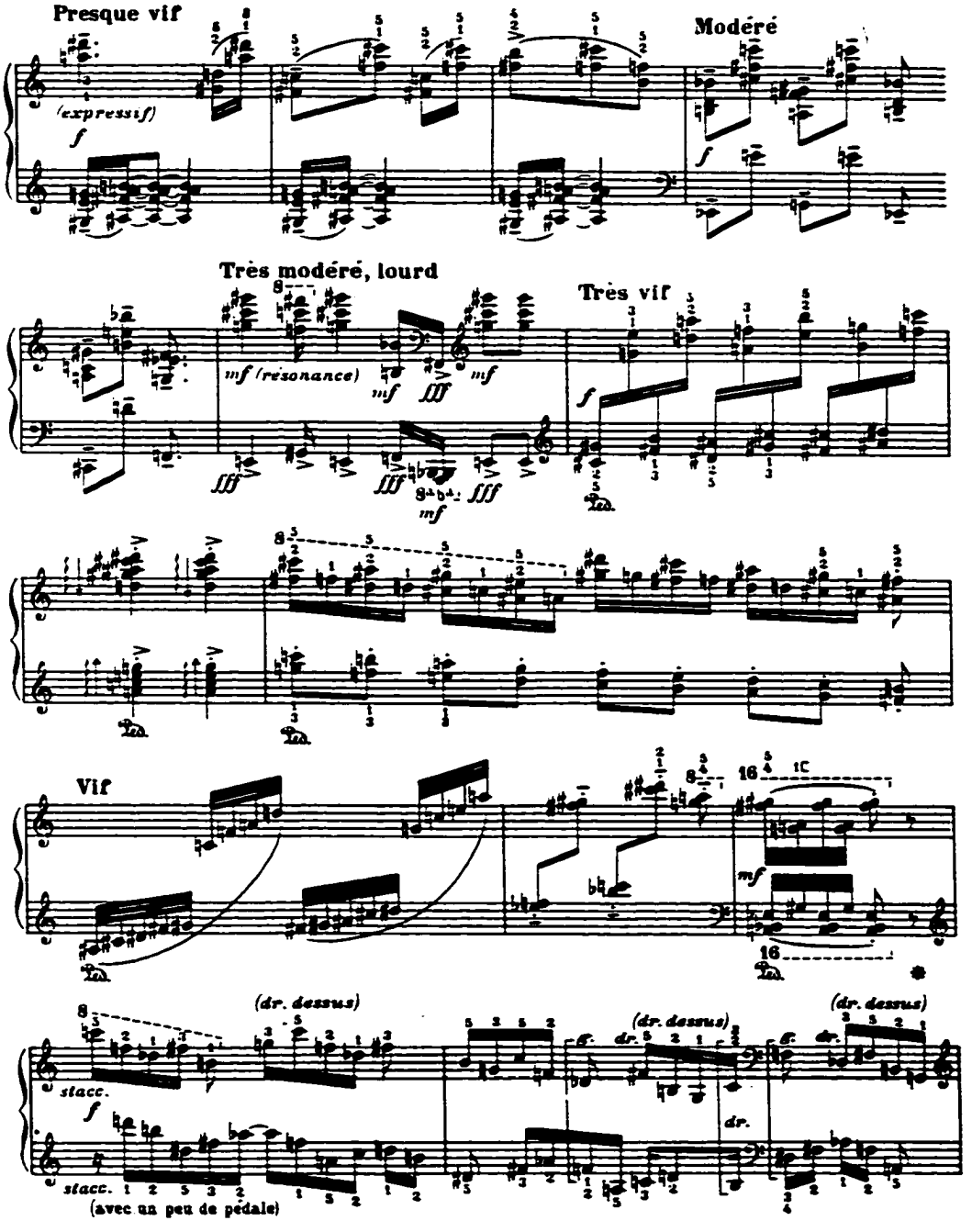
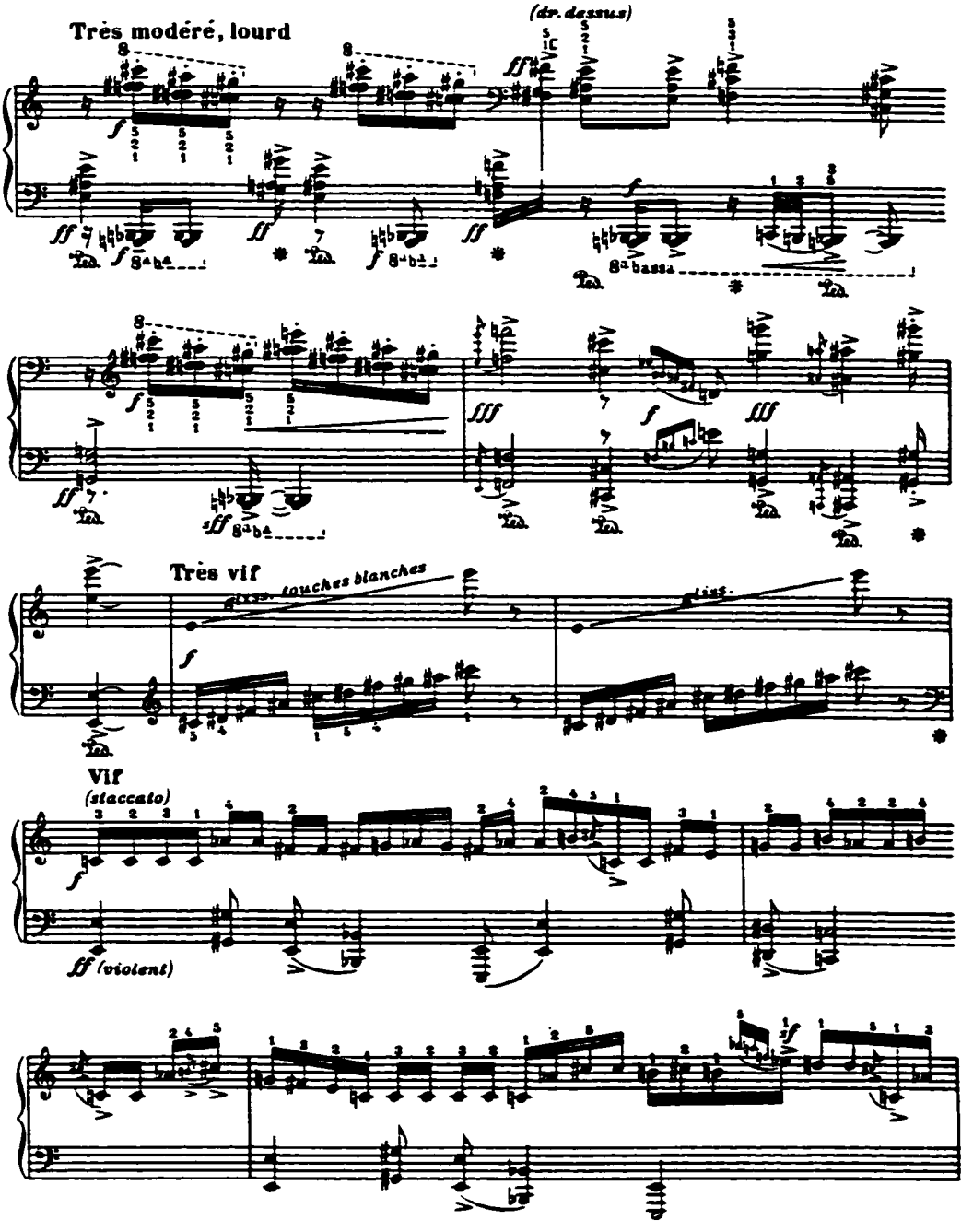
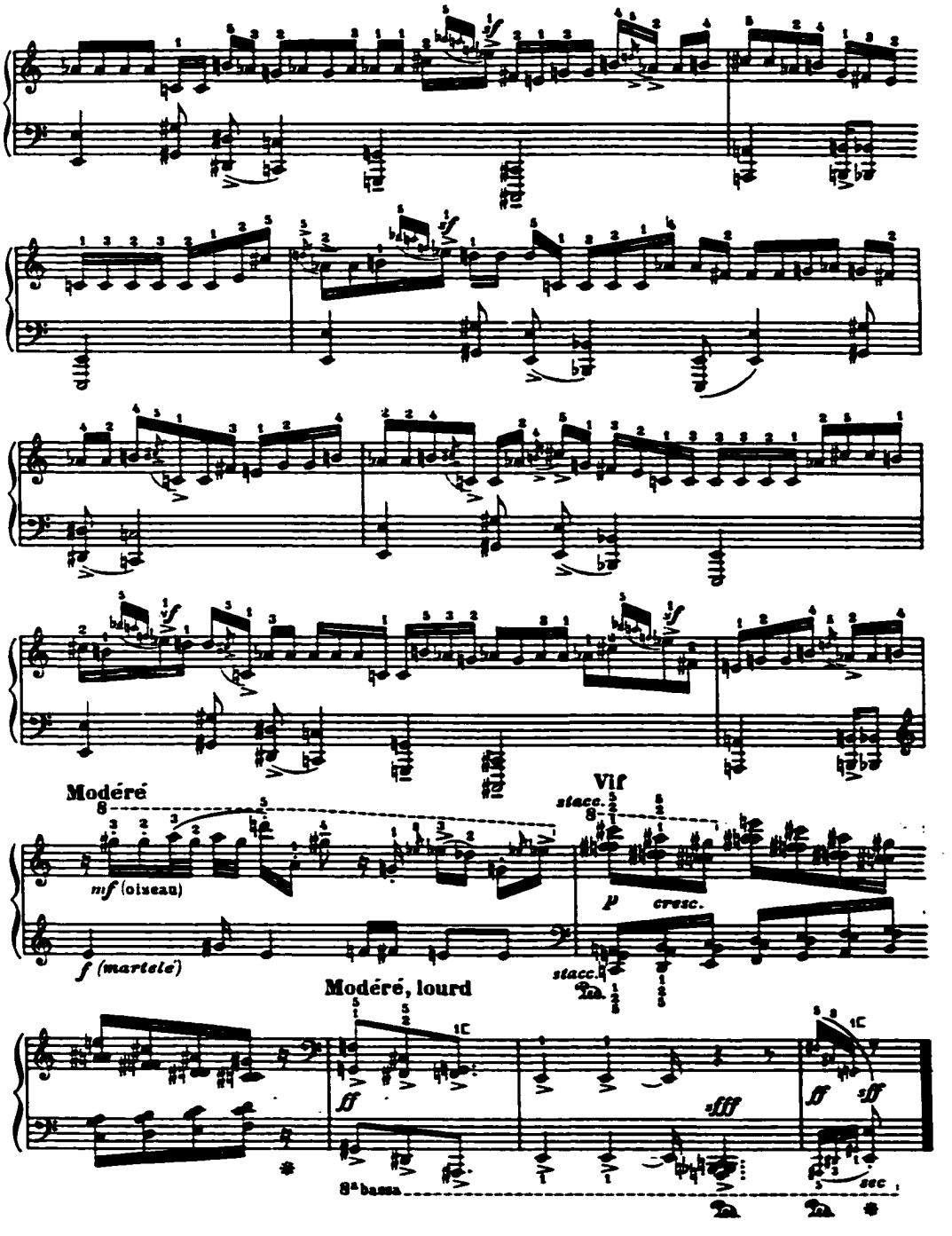


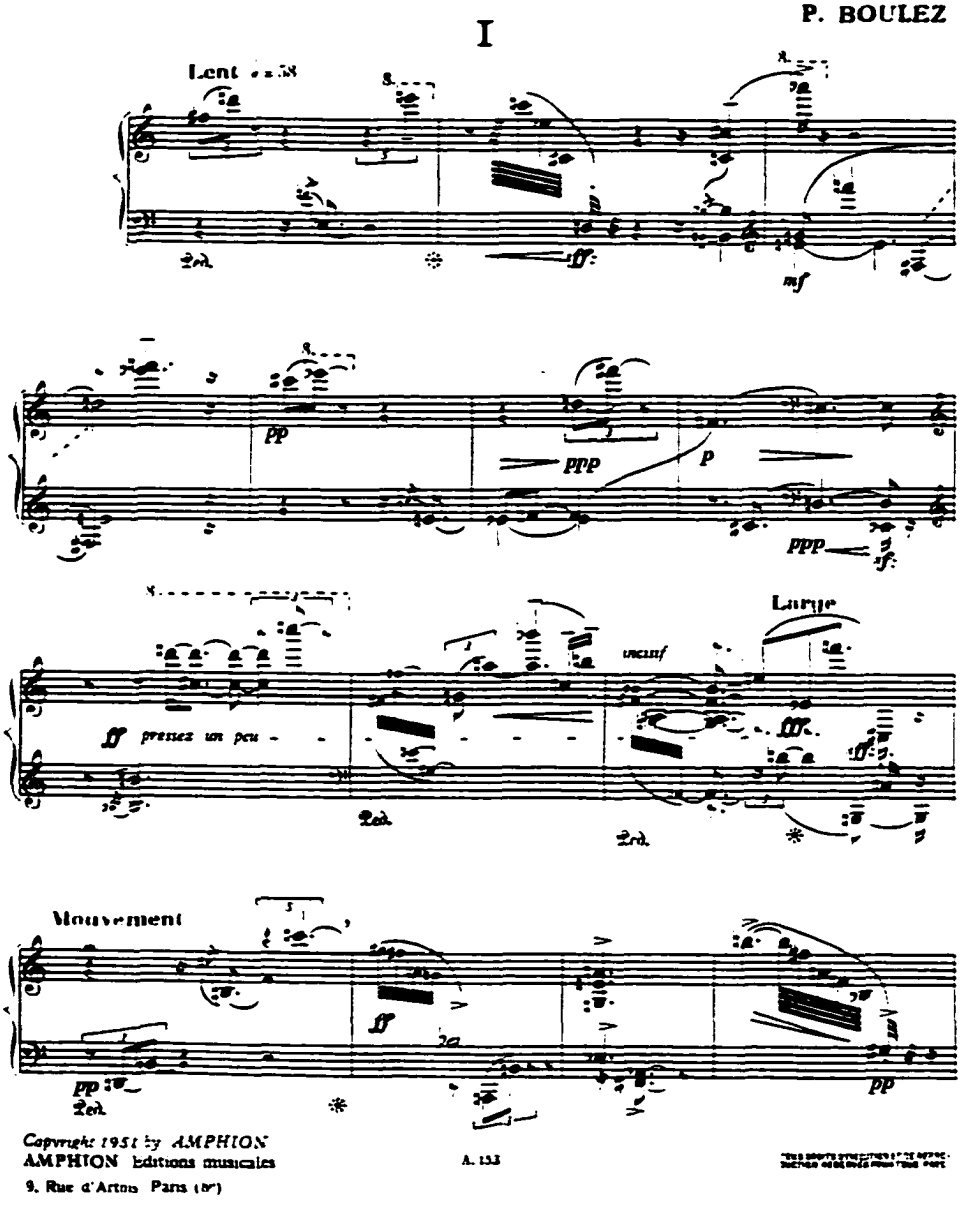




Appendix B

Boulez: *Première Sonate*, first movement

PREMIÈRE SONATE



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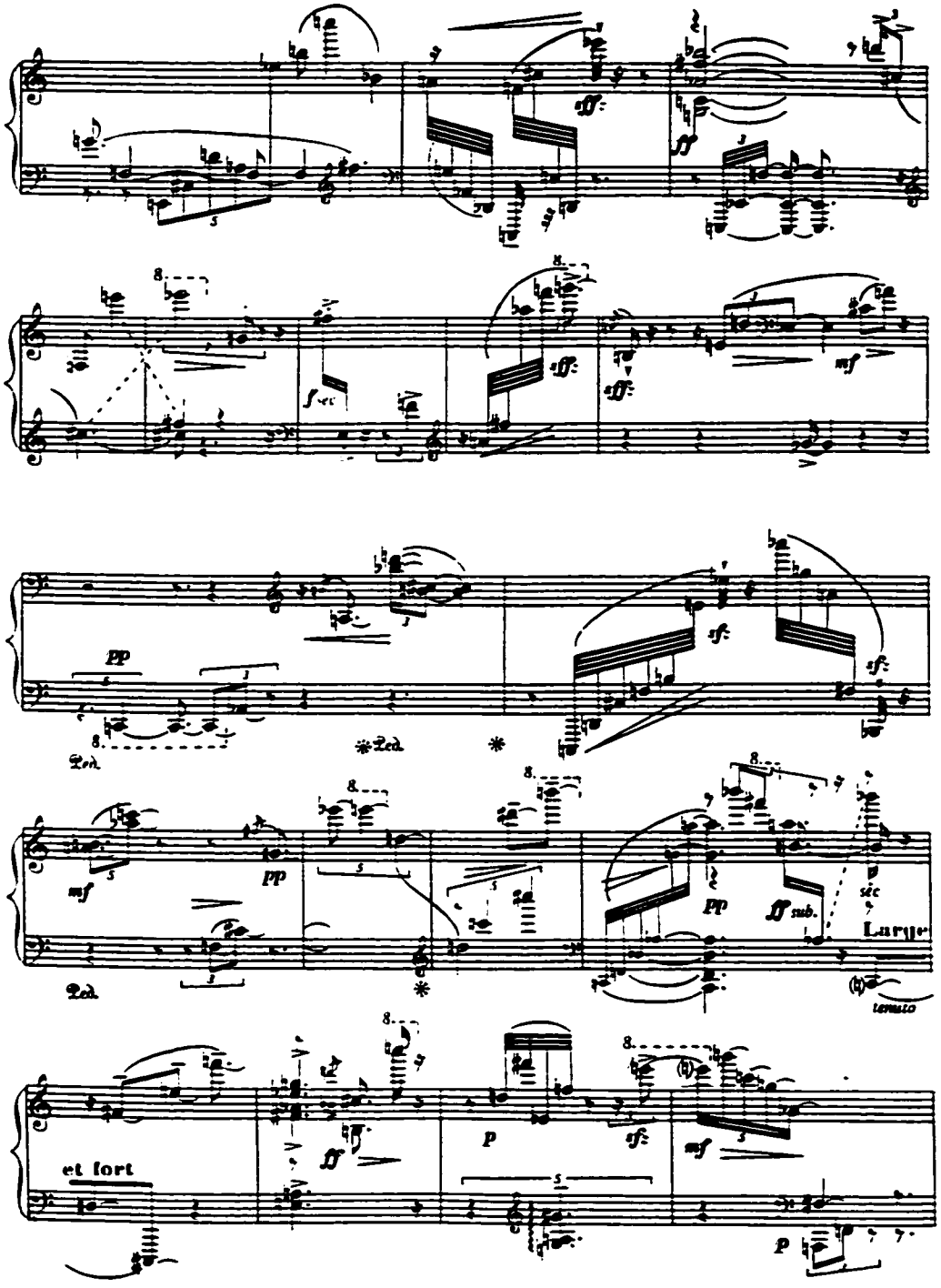

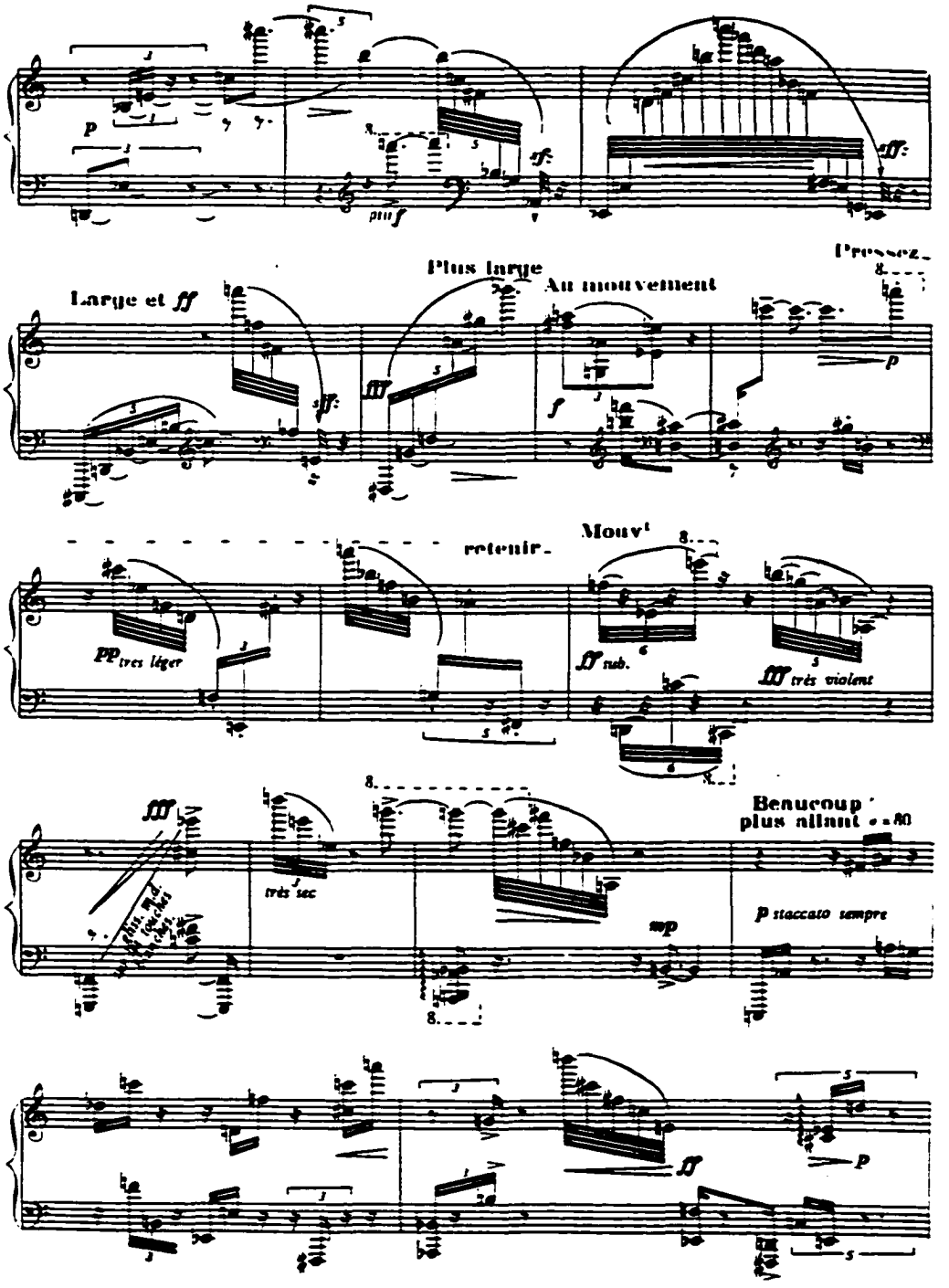

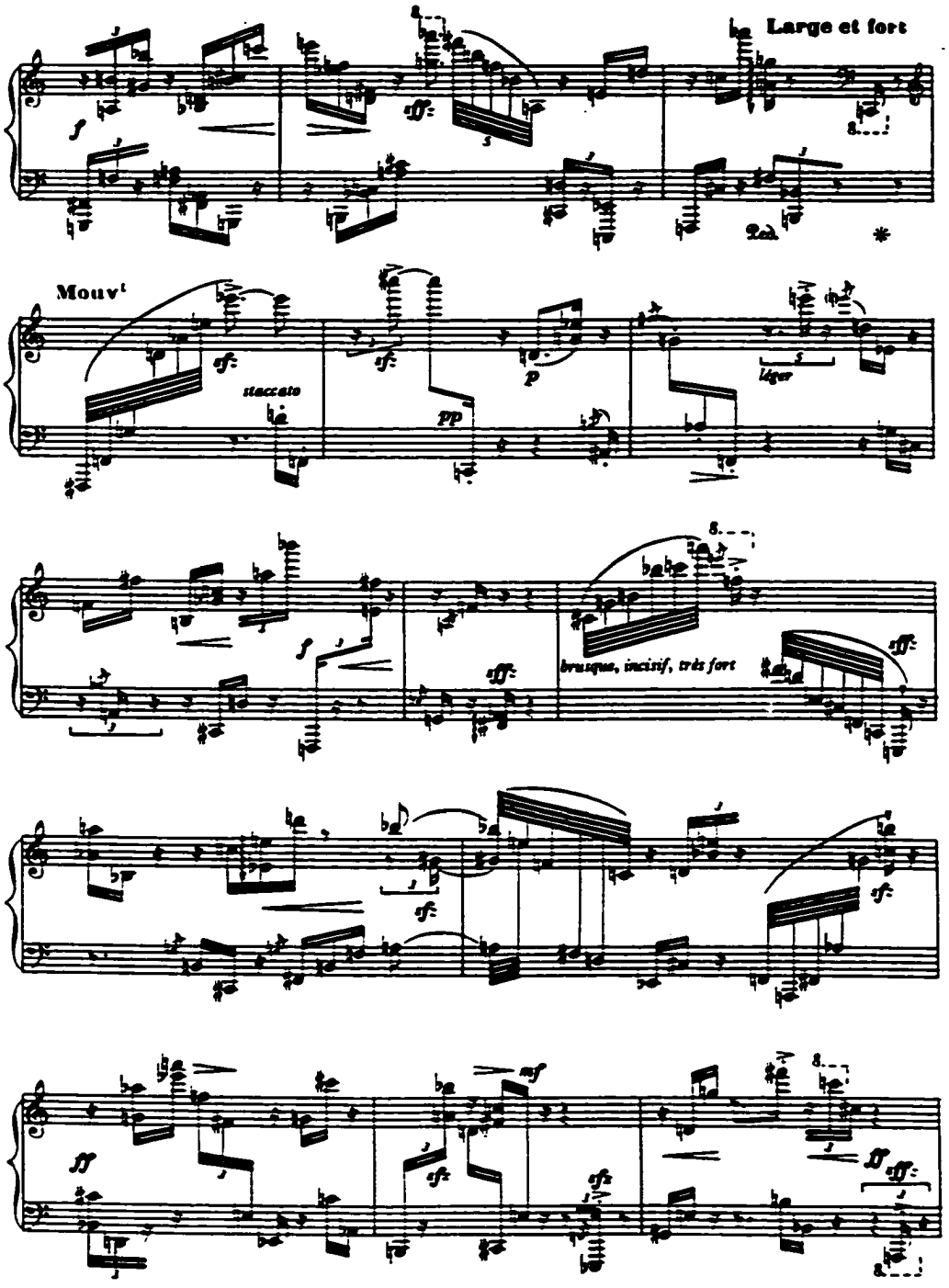

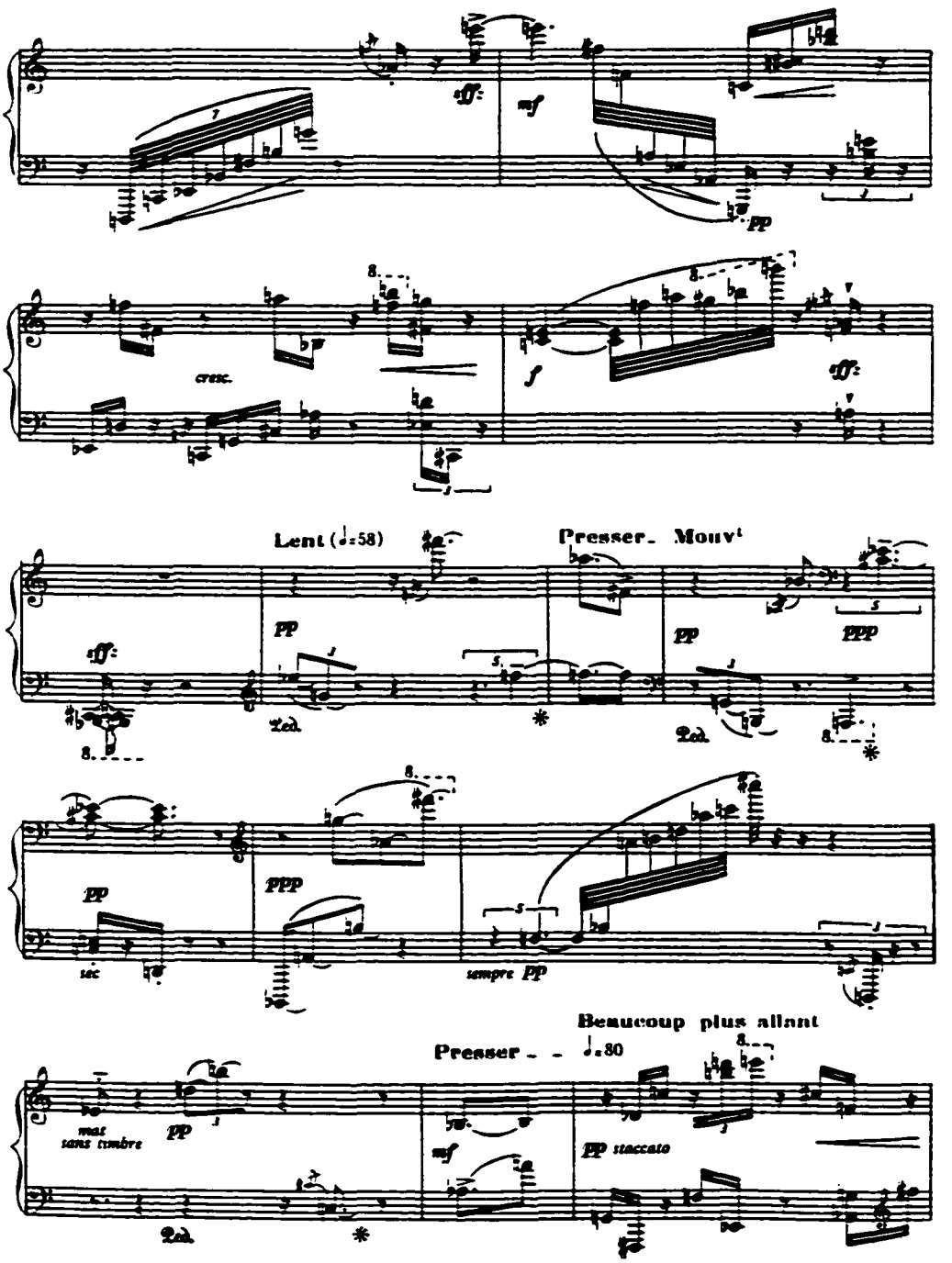

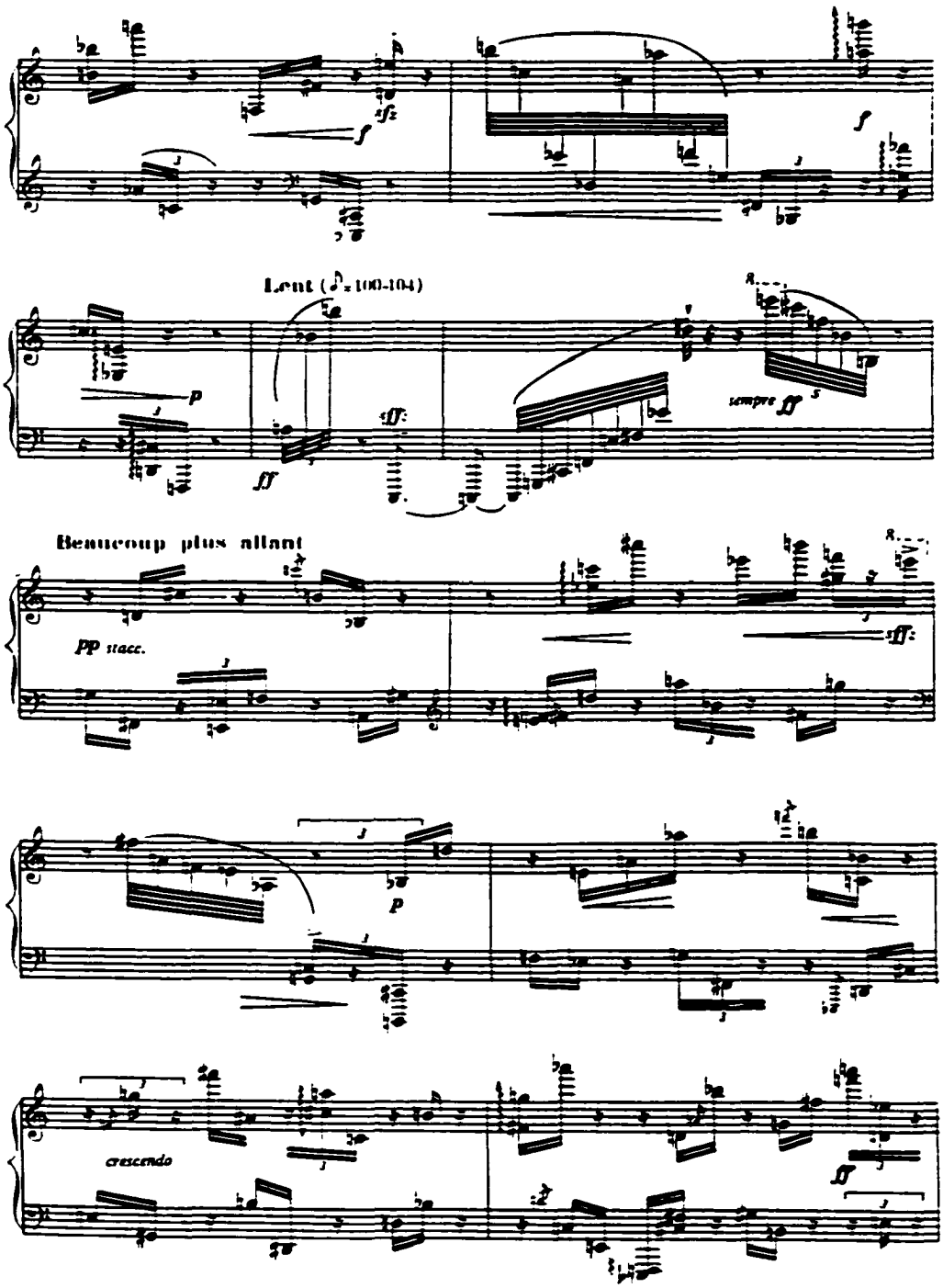

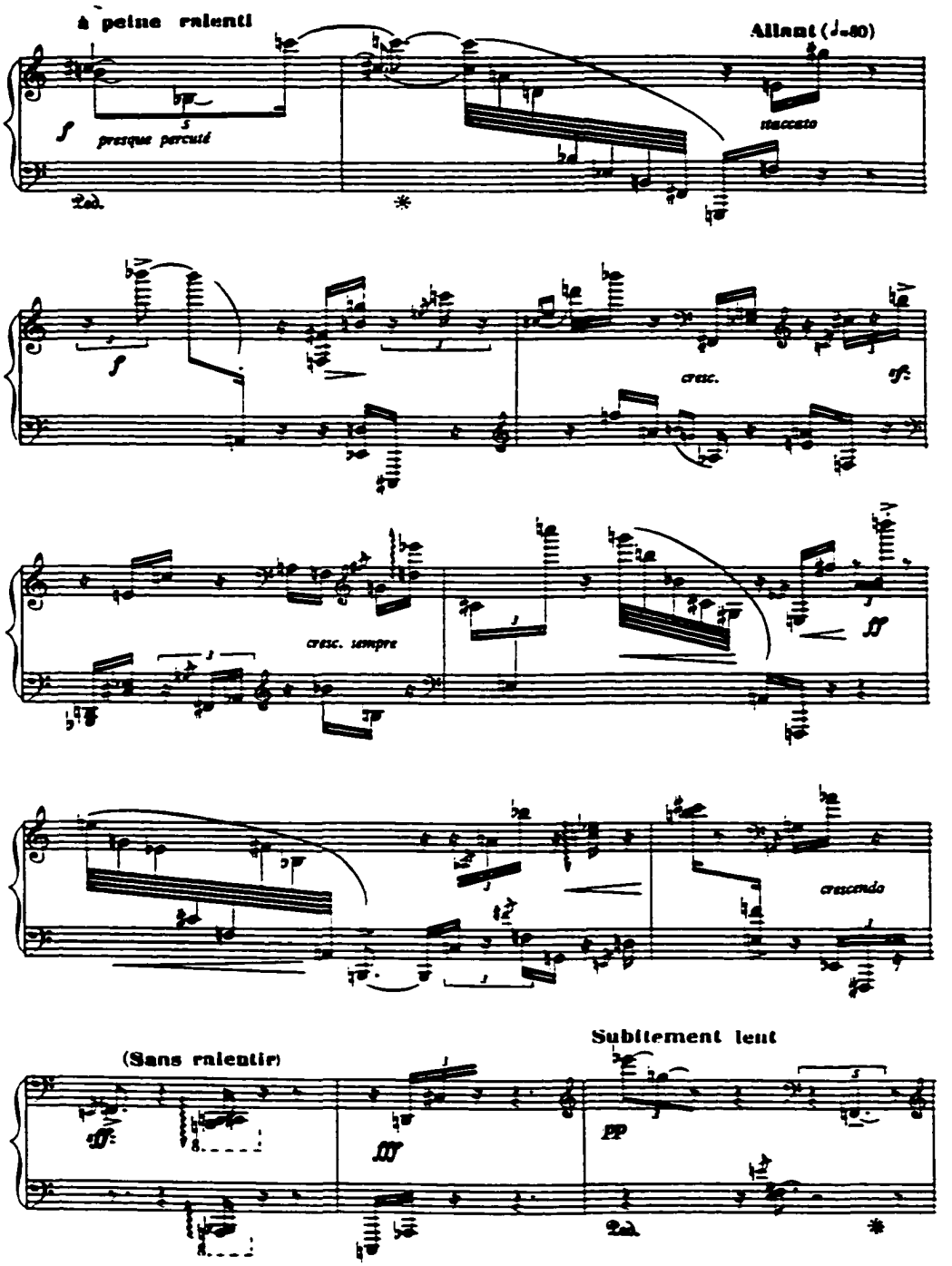

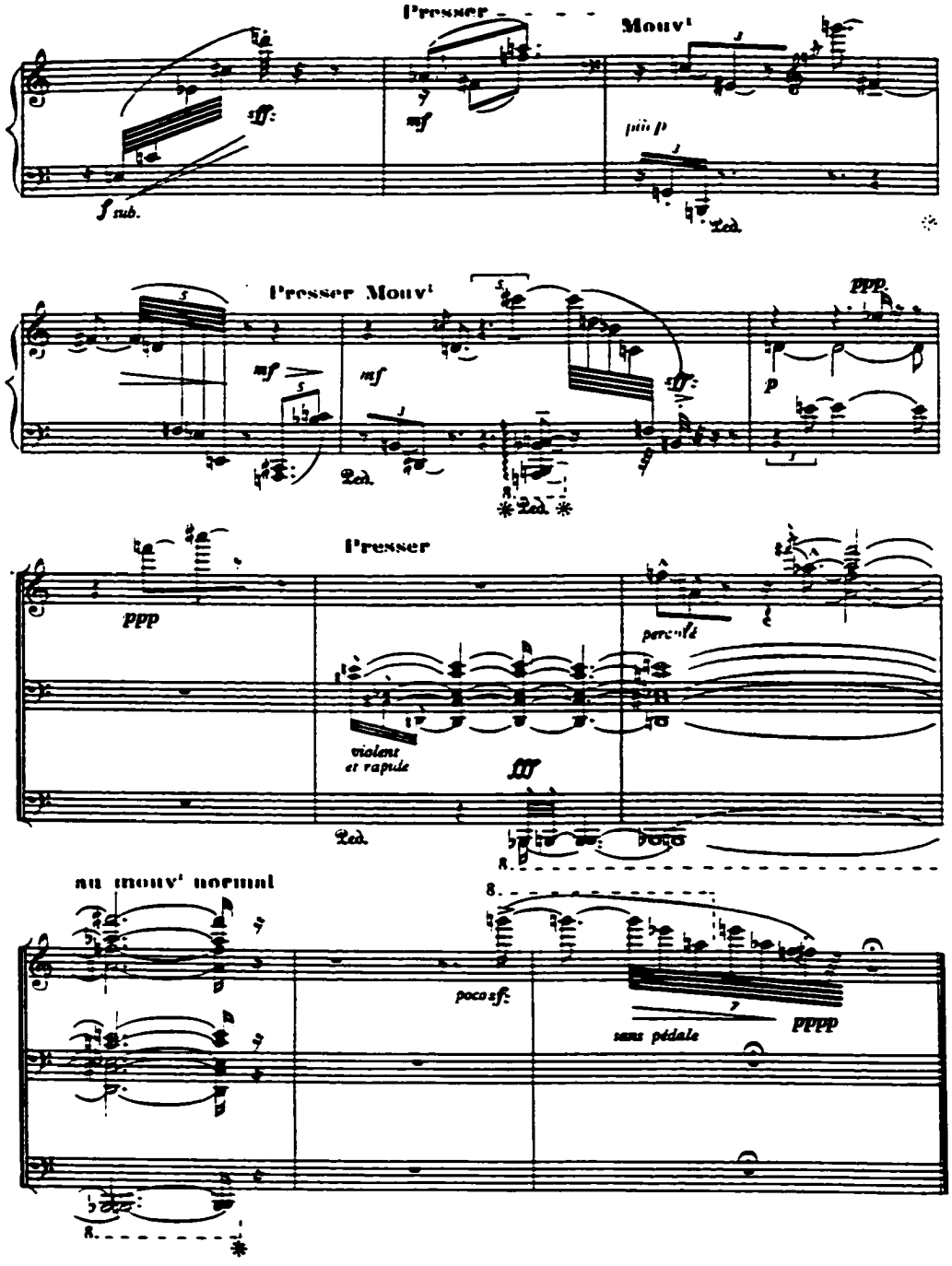

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