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Transforming Messiaen : The Application of Elements of the Musical Language of Olivier Messiaen to the Contemporary Jazz Orchestra

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Dissertation

TRANSFORMING MESSIAEN:

THE APPLICATION OF ELEMENTS OF THE MUSICAL LANGUAGE OF OLIVIER MESSIAEN TO THE CONTEMPORARY JAZZ ORCHESTRA

By

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Bachelor of Music – Jazz (Composition and Arranging) with Honours

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USE OF THESIS

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Abstract

The music of Olivier Messiaen is a unique and interesting contribution to the canon of 20th Century art music, but one that has received little attention from the jazz world. Through a detailed study of his music, this dissertation aims to gain a deeper understanding of Messiaen's musical language and investigate the possibilities of applying that language within the jazz idiom. In addition to a discussion of Messiaen and his music, a detailed analysis of the author's own composition for pipe organ and jazz orchestra, *Auguries of Innocence,* will explore the results of this application. The complete scores and an audio recording of the work are included, as is a supplementary study of the pipe organ.

Declaration

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(i) Incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution or higher education;

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Johannes Luebbers

2006

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Introduction

The purpose of this dissertation is twofold: to investigate elements of the musical language and compositional style of Olivier Messiaen, one of the 20th century's most unique compositional voices, and also to show how his musical language and compositional style came to be assimilated with my own style in my large ensemble jazz composition *Auguries of Innocence*. Chapter 1 discusses Messiaen's life in order to contexualize his music. Chapter 2 presents a stylistic overview, with reference to selected works and Messiaen's own published text on his musical language. In the introduction to Chapter 3 Messiaen's influence on contemporary composers will be examined, as will his influence on jazz and popular music culture. The dissertation will conclude with a discussion on how Messiaen's influence came to be incorporated into my own music through an analysis of my composition, *Auguries of Innocence.*

Chapter I

Born a believer: contextualizing Messiaen's life and music

Oliver Eugéne Prosper Charles Messiaen was born on December 10, 1908, the son of Cécile Sauvage, a poet, and Pierre Messiaen, an English teacher and translator of Shakespeare. Though born in Avignon, his family moved shortly after his birth to Ambert, in the department of Puy-de-Dome, where he remained for his first six years. With the breakout of WWI Messiaen moved to an uncle's house in Grenoble, for both his father and uncle were serving in the army. Here he was raised by his mother and grandmother 'in a climate of poetry and fairytales' (Griffiths 1985, 20). Displaying a remarkable musical precocity, he began to teach himself the piano at eight years old and soon after was sent to his first music teacher; Mlle Chardon. Before he had even turned ten Messiaen was making Christmas requests of certain operatic scores by Mozart, Gluck, Wagner, Debussy and Ravel, demonstrating a uniquely sophisticated musical palate for child. His first composition was written for piano in 1917, at the age of nine, and was titled 'La dame de Shalott', after Tennyson's poem of the same name (Griffiths 1985, 21). Though neither of his parents was particularly religious, Messiaen always felt an affinity with the Catholic faith, claiming to have been 'born a believer' (Samuel 1986, 16). It is this faith that has been Messiaen's primary motivation to compose, with very little of his output dwelling on things unrelated to Catholicism. Indeed, the challenge to convey 'the existence of the truths of the catholic faith' through music is often his main concern (Samuel 1986, 20). Messiaen is the first great composer to dwell on religion since Palestrina, which has in turn led him to dwell on time, a prominent theme in much of his output.

Upon the return of his father in 1918, Messiaen and his family moved to Nantes where he continued his piano studies with local teachers. He began harmony studies with local teacher Jehan de Gibon who, when Messiaen was ten, gave him the score to Debussy's opera *Pelléas et Mélisande* (Griffiths 1985, 23). This work was a revelation to Messiaen and was according to Johnson 'was to become yet another major influence on his development as a composer' (Johnson 1975, 9). After only a few months in Nantes Messiaen's father accepted a job at Lycée Charlemagne in Paris, where they subsequently moved. This proved to be a fortunate move as, at the age of eleven, Messiaen was accepted into the Paris Conservatoire.

'This was Paris in the twenties, the age of Stravinsky and clean-cut neoclassicism, of jazz and cabaret, of Cocteau and Les Six, of the chic second phase of the Ballets Russes.' (Griffiths 1985, 24)

One might have expected this lively cultural melting pot to have a significant influence on the young Messiaen, but according to Griffiths 'that whole culture affected him hardly at all' (Griffiths 1985, 24). Paris did not let Messiaen go unmarked though, finding him influence and inspiration in the living tradition of religious music at the time. There too existed a vibrant arts community with much significant work that was to have an effect on Messiaen, including; the mystical inclinations of Skryabin, the explorations in time of Stravinsky and the surrealists explorations of how 'art might penetrate beyond the material world' (Griffiths 1985, 25).

At the Paris Conservatoire Messiaen studied; piano with Georges Falkenberg; harmony with Jean Gallon; counterpoint and fugue with Georges Caussade; piano

accompaniment with C.A. Estyle; organ and improvisation with Marcel Dupré; music history with Maurice Emmanuel; composition with Paul Dukas; and timpani and percussion with Joseph Baggers. Dupré and Emmanuel both had a profound influence on Messiaen, introducing him to the rhythm of ancient Greece and encouraging him to search for unconventional modalities (Griffiths 1985, 26). His orchestral technique and approach was learnt from Dukas, with whom he studied until 1930. Other influences include Villa-Lobos, who resided in Paris from 1923-1930, and Edgar Varése, who lived in Paris from 1928-33 during which time he wrote his influential percussion work *Ionisation* (Griffiths 1985, 24).

Messiaen's first published work was *Le Banquet Céleste* (1928) and was one of three works written at the time as a meditation on the Eucharist. Despite his young age at the time of its composition the piece is surprisingly mature, showing many techniques and ideas (particularly that of his modes of limited transposition) that would remain with him throughout his career.

1929 and 1930 saw Messiaen enter for the Prix de Rome but, like many French composers before him, it eluded him, despite being a finalist in 1930. That year also saw the composition of the organ work *Diptyqe*, part of which was later drawn on for the finale to the *Quartet for the end of time* (Griffiths 1985, 43).

In 1931 Messiaen was appointed as organist at La Trinité church in Paris, where he remained for the rest of his life. That same year he encountered Balinese Gamelan music for the first time at the Exposition Coloniale, where Debussy had encountered Javanese music some forty-two years earlier. This influence first comes to the surface some years later, in Messiaen's 1944 work, *Trois petites liturgies* (Griffiths 1985, 49).

Being one of very few modern composers, Messiaen 'had the opportunity to bring to the organ for the first time a modern feeling for varieties of timbre, and his preface to *La Nativité* shows how proud he was of this innovation' (Griffiths 1985, 52). The first organ work to be composed at La Trinité was *Apparition de l'Eglise Eternelle* (1934), and was followed shortly after by 1935's *La Nativité du Seigneur*. Though incomplete, *La Nativité* was Messiaen's first published discussion of his 'modes of limited transposition', naming them as the first of 'five principal means of expression' (Messiaen 1936, introduction). The other devices discussed in this early treatise are the enlargement of foreign notes, the added dot, the progressive widening of intervals and the chord on the dominant. Despite the fact that Messiaen probably discovered Sharngadeva's list of 120 deci-talas whilst still studying at the conservatoire, this important work was the first to include the influence of Indian rhythm (Johnson 1975, 10). Another first is the appearance of bird song in the ninth movement of *La Nativité* and the preface holds the first discussion of Messiaen's theological motivations. The breadth of reference in *La Nativité* is substantial and includes much that remained with him throughout his life.

In 1932 Messiaen married his first wife, Claire Delbos, and in 1936 La Jeune France emerged; a group of four composers dedicated to presenting a 'living music, having the impetus of sincerity, generosity and artistic conscientiousness' (Pople 1998, 6). This group did not last and seemed to have little effect on Messiaen. Also in 1936 he began teaching at the Schola Cantorum and the Ecole Normale de Musique, giving him financial security for the first time.

Following the break out of war, Messiaen served in the army as a hospital attendant until, in 1940, he was taken prisoner. It was here, in the surroundings of a German prisoner-of-war camp, that Messiaen was to compose his most ambitious

work to date: the *Quartet for the end of time*. This work, for a chamber ensemble of violin, cello, clarinet and piano, explores the idea of the 'end of time', conveying this concept 'sometimes by non-developing textures of ostinatos, sometimes by very slow music, sometimes by sudden interruptions, sometimes by dances in irregular rhythm' (Griffiths 2006). The work was premiered in 1941 to an audience of prisoners and Messiaen later recalled 'Never, have I been heard with as much attention and understanding' (Pople 1998, 16).

After his release in 1942, Messiaen was appointed Professor of Harmony at the Paris Conservatoire In 1947 he was appointed as Professor of Analysis, Aesthetics and Rhythm and then, in 1966, Professor of Composition, though the actual content and nature of his classes did not vary as much as his title (Johnson 1975, 11). The1940's saw Messiaen come into contact with some of his most talented students, including Pierre Boulez, Karlheinz Stockhausen, Serge Nigg and Yvonne Loriod. Messiaen's relationship with Yvonne Loriod had particular influence on him, inspiring him to compose many of his major piano works and to include the piano as a prominent voice in his orchestral works (Johnson 1975, 11). Over the next fifteen years Messiaen's wife's health deteriorated, ending in her death in 1959. Following this his developing relationship with Yvonne Loriod moved from musical to personal, resulting in their marriage in 1962 (Griffiths 1985, 108).

In 1944 Messiaen published the *Technique of my musical language*, which was the first comprehensive outline of his musical language, being preceded by the inferior prefaces to the *Quartet* and *La Nativité*. Premiered in 1945, *Trois petites Liturgies de la Présence divine* was another major work of this period and was the first appearance of the influence of Gamelan (Griffiths 1985, 113), which was to be used again to effect in *Et exspecto resurrectionem mortuorum*, premiered in 1965. A

fitting close to the 1940's was the commission and subsequent performance of the epic *Turangalila Symphonie* in 1949. This was Messiaen's biggest work so far and it's popularity brought him even further under the international eye. The late 1940's also saw Messiaen experiment with serialism and its application to more than just pitch, resulting in the 1949 work *Mode de valuers et d'intensités*. This study was only fleeting though and its importance lies more in the influence it had on the likes of Boulez and Stockhausen. When asked to comment on it a decade later Messiaen replied 'there are various Messiaen's who are dead' (Griffiths 1985, 153). It was during this time that Messiaen also began to deeply explore the use of bird song in his music, travelling throughout France and the world to transcribe different birds (Griffiths 2006). This birdsong period culminated in 1960 with the composition of *Chronochromie*. This orchestral work presents interpretations of bird songs and calls alongside more abstract impressions of stream and mountains.

A 1962 visit to Japan brought about the composition *Sept Haïkaï*, inspired in part by the birds of Japan and the Japanese Noh theatre. For the last twenty-five years of his life Messiaen focused his efforts on writing large scale works, not least his epic, single contribution to the stage; *Saint François d'Assise*. His final gift to the musical world was his orchestral work *Eclairs sur l'Au-delà ...*, commissioned by the New York Philharmonic Orchestra and premiered after the composer's death in 1992.

Having taught such diverse students as Barraqué, Stockhausen, Xenakis, Goehr, Murail and George Benjamin, Messiaen's impact as a pedagogue as well as a composer is impressive. He managed to produce students that sound infinitely different to himself, despite his own highly individual musical world. It is this world that shall now be examined.

Chapter II

Techniques of his musical language

This chapter is an exposition of, and a critical examination of, Messiaen's musical language. The discussion is divided into six parts: modes of limited transposition; harmonic language; foreign notes; rhythmic language; melody and form. Though the organization of this chapter owes much to Messiaen's own *Technique of my musical language*, I depart from Messiaen's exposition in the following ways. First, in Messiaen's study he treats each musical element individually and presents his work in report style: here I explain the material in greater depth (often finding new musical examples by Messiaen in order to explain different points) and present the material in a continuous narrative. Second, I take a critical view of some aspects of Messiaen's work and examine his language from a broader perspective.

The charm of impossibilities

The 'charm of impossibilities' is a term coined by Messiaen to describe his affinity with the limitations of symmetrical scales and rhythms and is a concept that permeates many aspects of his musical language. The term is first documented in Messiaen's own treatise *The Technique of my Musical Language* (Messiaen 1944, 13), referring to the fact that his symmetrical 'modes of limited transposition' may only be transposed a specific number of times and his non-retrogradable rhythms appear the same in retrograde as they do when read from left to right. The perceived 'charm' of these limitations stems from his fascination with mysticism and

spirituality, for he deems the impossibilities to hold a divine power, which is in turn an aspect of his broader, catholic-orientated philosophies.

'I must speak to you about a phenomenon that, if I may say so, has dominated my whole life as a composer and that in my first treatise I called, perhaps a bit naively, "the charm of impossibilities"... They possess an occult power, a calculated ascendency, in time and sound.' (Samuel 1986, 47-8)

Perhaps though, on the subject of Messiaen's modes, the interest of these concepts lies not in the fact that they are limited number of transpositions, but in the fact that they are symmetrical and thus create a different tonal world to that of conventional major and minor tonality.

'Messiaen's terminology may be slightly unhelpful, since the important thing about his second mode is not that its transpositions are limited but rather that its construction is symmetrical, since this is the root cause of the limitation on transposition and also of the tonal instability that he musically exploits. The same is true of his other "modes of limited transposition."' (Griffiths 1985, 29)

Modes of limited transposition

Even when Messiaen employs more traditional musical techniques they become clouded by his distinct tonal world. According to Neidhöfer 'what distinguishes these techniques from those in the music of the past is the unique pitch-class environment in which they occur, an environment that engages its own

idiosyncratic ways of listening' (Neidhöfer 2005). He is, of course, referring to Messiaen's 'modes of limited transposition'.

These modes are transposable a limited number of times due to the fact that within each mode there exists already symmetrical groupings that themselves are transposed to make up the rest of the scale. The last note of each group is the first note of the following group. Due to their symmetrical construction each mode is capable of creating a variety of chords common to different keys, giving the atmosphere of multiple tonalities.

'Their impossibility of transposition makes their strange charm. They are at once in the atmosphere of several tonalities, *without polytonality*, the composer being free to give predominance to one of the tonalities or to leave the tonal impression unsettled.' (Messiaen 1944, 58)

There are many more modes that fit the requirements of a 'mode of limited transposition' beyond the seven that Messiaen describes, though not all are of practical use.

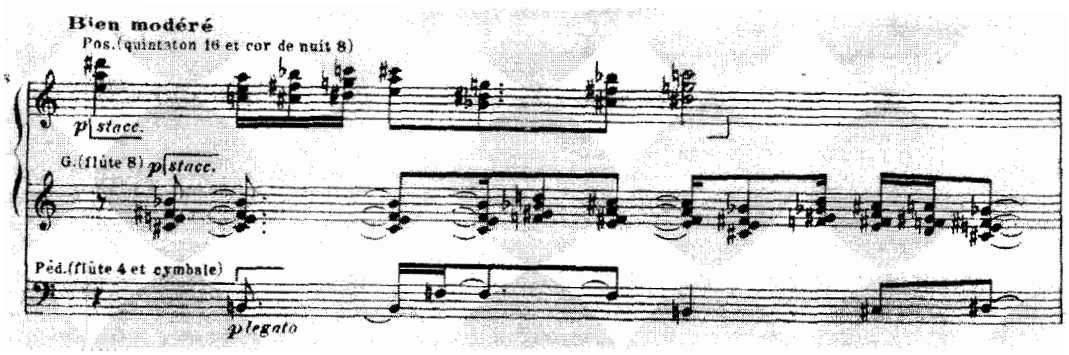
"There are in sum sixteen modes that qualify under Messiaen's definition as being 'of limited transpositions', but some of them can be discounted: the chromatic scale, with its single transposition, offers no melodic or harmonic limitations whatsoever; the diminished-seventh chord and augmented trad are both much too limited, as indeed is the mode consisting simply of a tritone." (Griffiths 1985, 36)

Of the remaining twelve modes Messiaen names and uses only seven. A possible reason for these omissions is that some modes are merely abbreviated versions of other modes and so are not necessary, though there exists within Messiaen's named seven modes two that are in fact truncated versions of other modes. Mode 1 is contained within mode 3 and mode 5 is simply a shorter version of mode 4, however both these modes have a very specific identity, with the whole-tone scale having already been firmly established by Debussy and mode 5 being the source of Messiaen's 'chord in fourths'. Indeed, Messiaen states that 'mode 5, being a truncated mode 4, has the right of quotation here only because it engenders the melodic formula  and the chord in fourths' (Messiaen 1944, 62).

One can conclude then that any mode that is a truncated version of another mode may be omitted, unless there are unique characteristics, harmonic or otherwise, that warrant its inclusion.

Messiaen uses all of his seven modes throughout his output, but not always are they employed one at a time. In his *Technique of my musical language* he discusses the possibilities of combining different modes with each other or with major tonality, observing that modes may modulate or side-step to another transposition or to a completely different mode altogether. He also demonstrates how multiple modes may be used simultaneously, creating colourful textures. In example 1 the right hand is based on mode 2, the left hand on mode 3 and the pedals on mode 1.

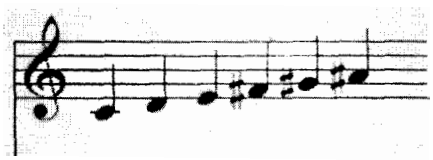
Example 1.



Mode 1

The first of Messiaen's modes of limited transposition is the whole-tone scale, shown in example 2. It is comprised of 6 notes a tone apart from each other and is transposable twice.

Example 2

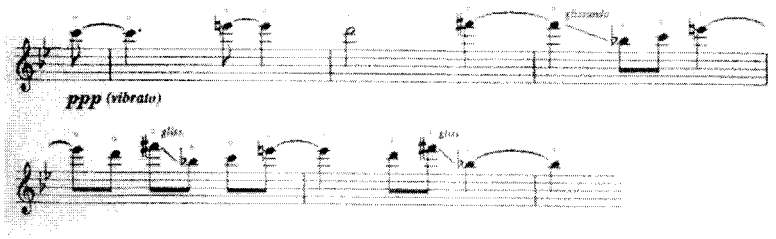


This mode is the least used by Messiaen, appearing much less frequently in his work than the others. Messiaen offers Dukas and Debussy's comprehensive manipulation of it as a reason for his neglect (Messiaen 1944, 59), and even goes so far as to say that its use is 'forbidden in our language' (Messiaen 1944, 69), but Griffiths suggests an alternative theory:

'[Messiaen's] own practice in such works as the *Quartuor pour la fin du temps* [shown in example 3] belies this, and one may surmise that he has been less attracted

to the whole-tone mode because it offers fewer points of contact with diatonic harmony.' (Griffiths 1985, 30)

Example 3.



Mode 2

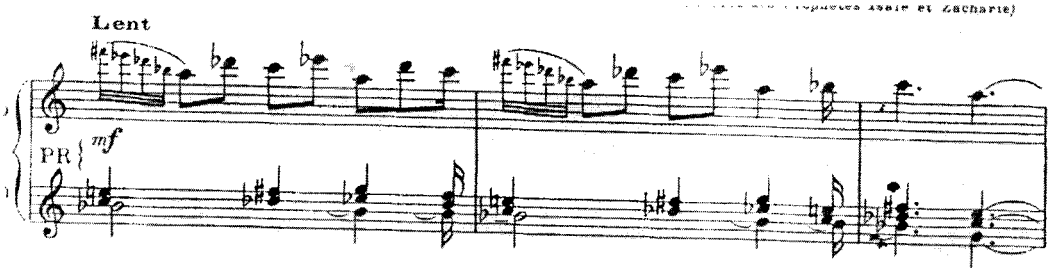
'Of the modes he does distinguish, the second and third are far and away of greatest importance.' (Griffiths 1985, 36)

This mode is also referred to as the 'octatonic scale', central to Stravinsky's thinking (Griffiths 1985, 31), and the 'dominant eight-note' scale, as used in the jazz. It is shown in example 4. It is one of Messiaen's most widely used modes and is made up of 4 smaller groups of 3 notes each. Each of these smaller groups is comprised of semitone followed by a tone, with the overall intervallic pattern being that of alternating tones and semitones. It is built on the diminished seventh chord, with all notes being included in two diminished seventh chords a semitone apart (bracketed), and is thus transposable 3 times.

Example 4

The construction of major triads, minor triads and dominant 7th chords is possible on the 1st, 3rd, 5th and 7th degrees, allowing the implication of more than one tonal centre to be felt. Despite this, it is impossible to create a V chord for any of those major triads, or a I chord for any of the dominant 7 chords to resolve to, creating a somewhat ambiguous sense of tonality. Example 5, from *La Nativité du Seigneur*, shows Messiaen's use of mode 2.

Example 5.



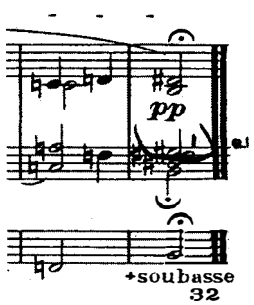
The impossibility of V-I harmonic movement within this mode and the possibility of tritone movement is a primary reason for Messiaen's favouring of the tritone cadence. Other reasons include the obvious palindromic symmetry of the tritone and also Messiaen's assertion that a #11 may be perceived in the breaking up of the harmonic series when a note is struck.

'Let us recall that a very fine ear clearly perceives an F-sharp in the natural resonance of a low C. This F-sharp is endowed with an attraction toward the C, which becomes its normal resolution.' (Messiaen 1944, 31)

This logic, however, is flawed in that though an F# may be heard when a low C is struck it does not mean that an F# naturally resolves to a C. If this were the case then there would be grounds to argue that every other partial of the C harmonic series naturally resolves to a C, which, if taken far enough, would include most notes and even microtones! Perhaps, though, what is important is not the rationale, but the effect and practical outcome of the use of the tritone cadence, which pervades most of Messiaen's output.

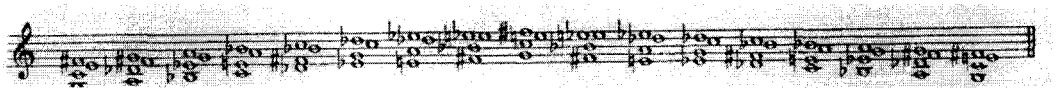
Johnson remarks that "viewed in classical terms this appears to be a very odd argument in favour of a resolution which does not behave as such. Not only does the 'dissonant' note fall through an augmented fourth, but also it does not create a sense of movement, or of tension and relaxation, since there is no necessity for the F sharp to resolve at all. It nevertheless fits into the context of Messiaen's harmonic language and it is only the use of the word 'resolution' which can really be questioned" (Johnson 1975, 14). Example 6 shows a tritone cadence being used in the fifth movement of *La Nativité du Seigneur*.

Example 6



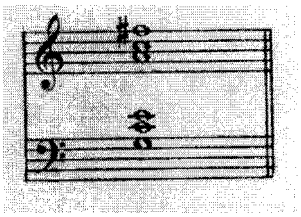
Messiaen also used specific vertical structures that he derived from mode 2, shown in example 7. These diatonic harmonisations alternate two types of chord: the major triad with a #11 and the dominant 7th with an added 13th.

Example 7

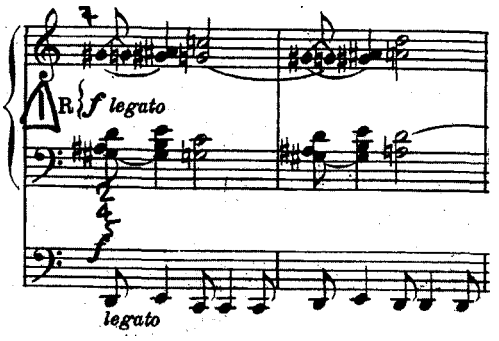


They are used extensively in his work, with the 2nd inversion triad with the added sixth and augmented fourth being a particularly recognisable Messiaen sound. Example 8 shows this chord as Messiaen outlines it in *Technique* and example 9 shows is use in *Apparition de l'Eglise éternelle.*

Example 8



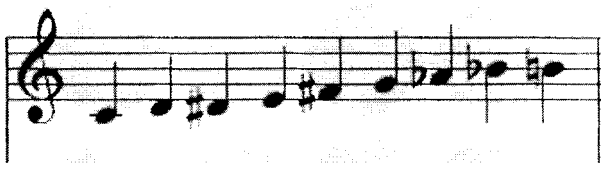
Example 9



Mode 3

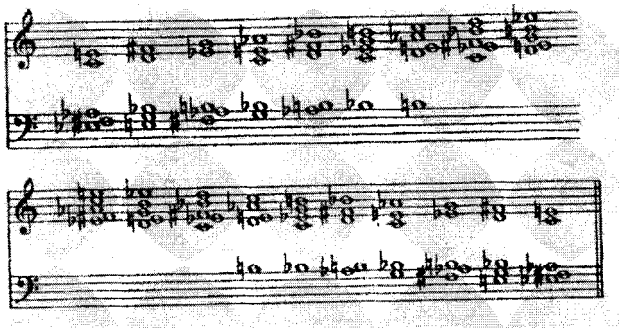
Mode 3, shown in example 10, is comprised of 3 groups of 4 notes each, with each group following the pattern of tone, semitone, semitone. It is built on the augmented triad, with major thirds being the underlying interval pattern, and, like the augmented triad, is transposable 4 times.

Example 10



All the notes of mode 3 are included in augmented triads built on the first 3 degrees of the mode, i.e. C augmented, D augmented and D# augmented for the above transposition. Like mode 2 a number of different triads are possible, allowing for polytonal implications. Messiaen also created vertical structures based on this mode, alternating 3 different types of chords, shown in example 11.

Example 11

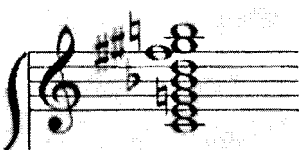


Example 12 shows his use of mode 3 in the opening of the *Quartet for the end of time.*

Example 12

Another vertical structure derived from mode 3 is the 'chord of resonance'. This chord, so called because it originates in the harmonic series, contains all but one note of mode 3. In the transposition shown in example 13 it includes 'nearly all the notes perceptible, to an extremely fine ear, in the resonance of a low C'. (Messiaen 1944, 50)

Example 13



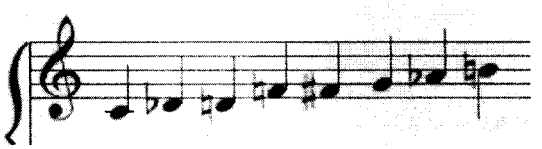
Mode, 4, 5, 6 and 7

The remaining four modes receive significantly less attention than modes 2 and 3, though they are still used. They are each transposable six times, like the tritone that underpins them, and are divided into two symmetrical groups of varying numbers of notes.

'There are four other modes, transposable six times, and presenting less interest, for the very reason of their too great number of transpositions.' (Messiaen, 1944, pg 58)

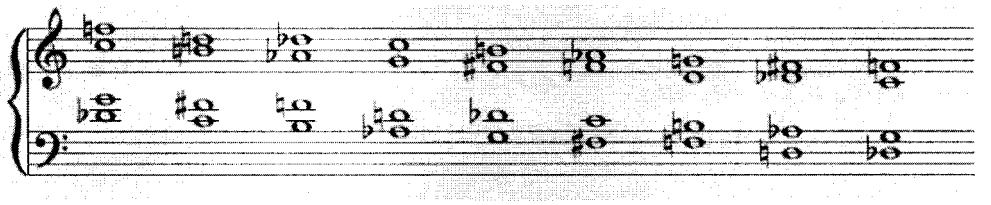
Mode 4, shown in example 14, is made up of two groups of five notes each. Each of those follows the pattern of semitone, semitone, minor third, semitone, with the result being that the first four notes are repeated up a tritone.

Example 14



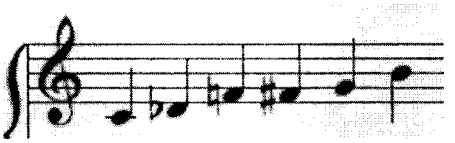
Messiaen built vertical structures from this mode too, shown in example 15, creating slightly more open and less dense sounds. Perfect and augmented fourths feature prominently.

Example 15



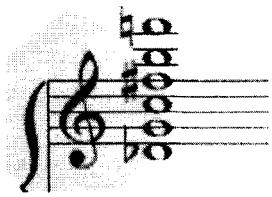
Mode 5, shown in example 16, follows the pattern of semitone, major third, semitone, creating two groups of four notes a tritone apart.

Example 16



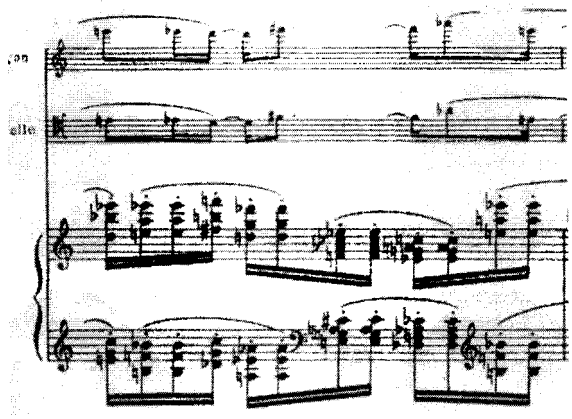
As has been mentioned mode 5 is a truncated version of mode 4, but its inclusion is validated due to it being the source of the previously mentioned melodic formula and the 'chord in fourths', shown in example 17. Instead of the traditional chordal building block of a third being used, Messiaen constructs this vertical structure with alternating perfect and augmented fourths.

Example 17



Example 18 demonstrates its use in the second movement of the *Quartet for the end of time*.

Example 18

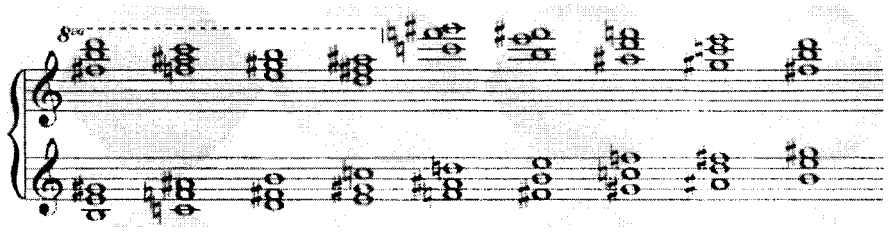


Mode 6, shown in example 19, comprises two groups of five notes each, following the configuration of tone, tone, semitone, semitone.

Example 19

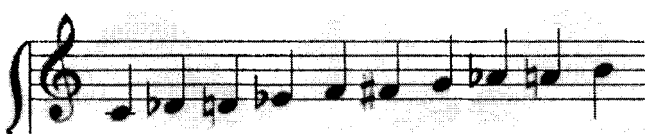
The result is the first four notes of two major scales a tritone apart. Mode 6 contains all the notes of mode 1, with two additional notes a tritone apart. Messiaen constructed vertical structures on mode 6 too, shown in example 20, though this time they are presented in contrary motion.

Example 20



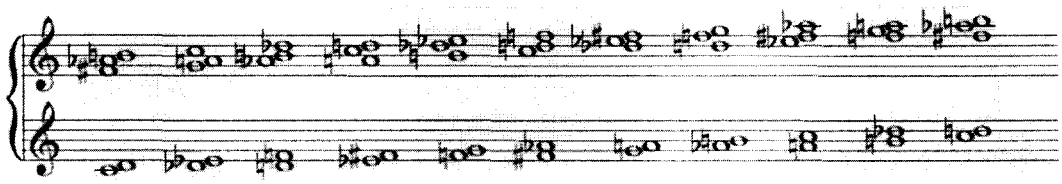
Mode 7, shown in example 21, is the last of Messiaen's titled modes and is so chromatic it is of questionable use. It consists of two groups of six notes each, following the pattern semitone, semitone, semitone, tone, semitone. If starting on C this mode includes all notes within the chromatic scale except the third (E) and the flat seventh (Bb), which are the two most important notes in jazz harmonic theory.

Example 21



Example 22 demonstrates vertical structures derived from this mode.

Example 22



Harmonic departures

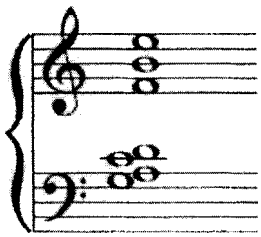
Messiaen's harmonic language is synonymous with his use of modes, as much of his harmonic colouring is modal and his choice of chord progression is often dictated, to a degree, by his mode choice. The aforementioned modal harmonisations are frequently used to great effect, as can be seen in the opening of Eclairs sur l'au-delá, as are other varieties of modal harmonisation.

The concept of added notes is introduced to explain the use of notes in a chord that are foreign to it. Messiaen describes these as being 'appoggiaturas without resolution', crediting this innovation to Debussy (Messiaen 1944, 47). He explains the effect of this on the chord as 'changing its colour, giving it a spice, a new perfume' (Messiaen 1944, 47). He outlines the added sixth and the added augmented fourth as being the favoured additions, speaking of Debussy's use of the sixth and again of the perceived F sharp in the resonance of a low C.

Messiaen also exploited a number of special chords of his own creation, including the already discussed 'chord of resonance' and the 'chord in fourths'. One other such chord, as yet undiscussed, is the 'chord on the dominant', shown in example 23. This chord 'contains all the notes of the major scale' (Messiaen 1944,

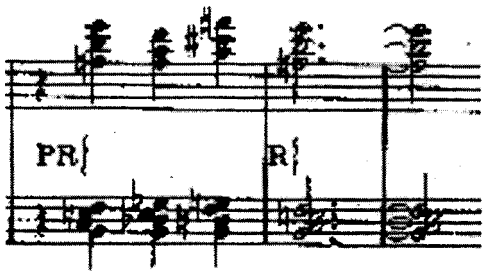
50) with the 'dominant' part of the title referring to the fact that in its pure form it has the fifth on the bottom of the chord.

Example 23



Example 24 shows Messiaen's use of this chord in the fourth movement of *La Nativite du Seigneur*.

Example 24



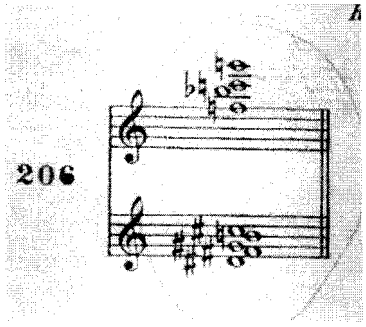
In practice, Messiaen often precedes the top two notes of this chord with appoggiaturas a tone higher, creating a tension and release. This may be seen in the first movement of the *Quartet for the end of time*, shown in example 25, where the initial piano chords use this two-chord progression. Pople points out that 'Messiaen freely adapts this progression of two chords by rearranging the notes so that the lowest is not necessarily the fifth degree of the underlying diatonic scale' (Pople 1998, 23). This technique seems to stem from his synesthesia for, according to

Messiaen, the retention of the common bass for the varying modulations of the chord brings 'forth an effect of a stained-glass window' (Messiaen 1944, 51).

Example 25

Messiaen also advocates using this chord with both the appoggiaturas and resolutions sounding simultaneously, shown in example 26, creating 'a chord which cannot be resolved because it collapses the duality of dissonance and resolution into a single moment' (Johnson 1975, 15).

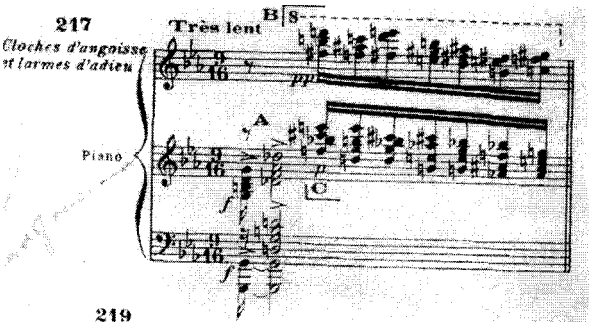
Example 26



Another device worthy of mention is the idea of 'added resonance', which, according to Johnson, has had 'the most far-reaching implications both for Messiaen and younger composers' (Johnson 1975, 17). With this technique Messiaen manipulates timbres and textures by working with, or against, the harmonic series. 'Superior resonance' is achieved through quietly playing one or many notes above a

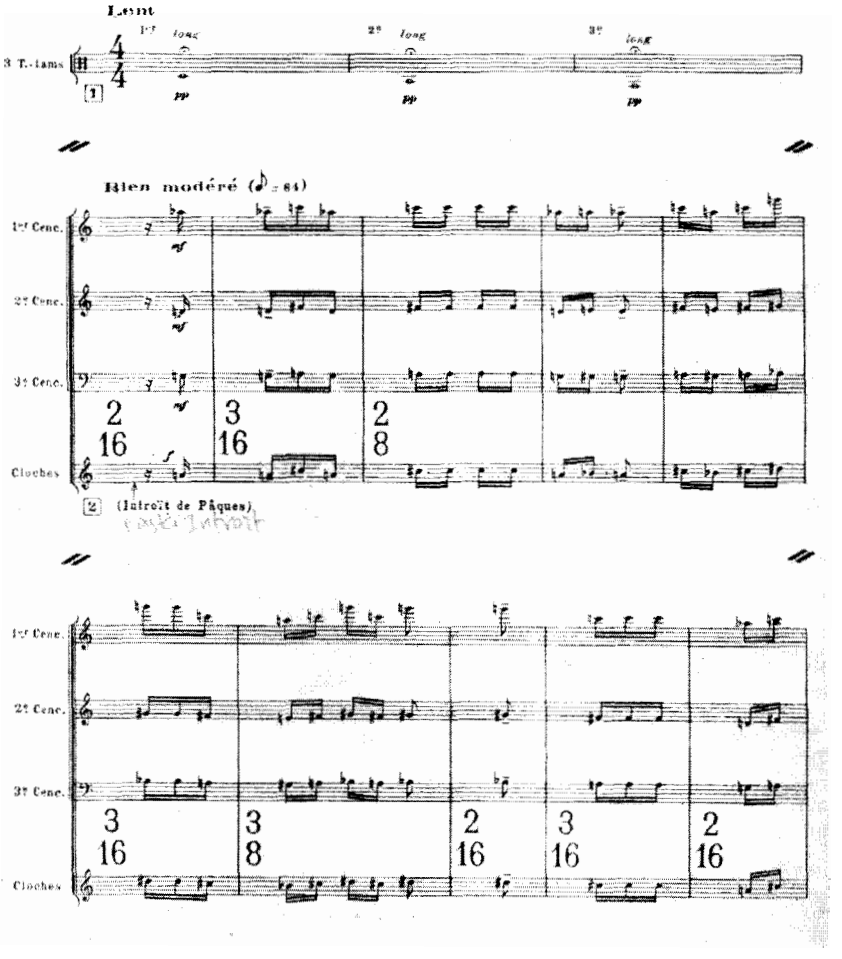
louder principal voice, reinforcing existing harmonic partials or creating different, more complex sonorities. 'Inferior resonance' is the inverse of this. Example 27 demonstrates 'superior resonance'.

Example 27



The Balinese Gamelan was a further influence on Messiaen's ideas of colour and texture, particularly in his treatment of the percussion section. This influence first appears in the *Trois petites liturgies* and is exemplified in *Et exspecto resurrectionem mortuorum* where Messiaen uses six gongs, three tam-tams, three sets of Mexican bells and tubular bells. In example 28 the opening of the fourth movement of *Et exspecto* is shown, scored only for percussion.

Example 28



Gamelan significantly influenced Messiaen's treatment of the percussion section from here on, causing him to treat it as much as a source of colour and texture as he does as a source of rhythm.

Enlargement of foreign notes

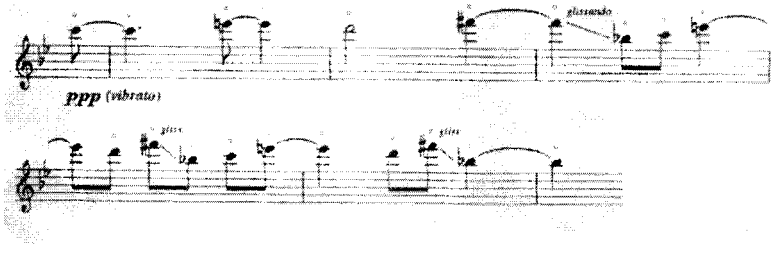
In light of the integration of foreign notes through the concept of 'added notes', Messiaen explored new ways of using devices that traditionally centred on foreign notes.

'In this multitude of added notes, what becomes of the old foreign notes: pedal, passing note, embellishment, appoggiatura? They are indispensable to the expressive and contrapuntal life of music; let us preserve them by enlarging them.' (Messiaen 1944, 55)

From these four devices Messiaen constructs groups, creating a 'pedal group', 'passing group', 'embellishment group' and an 'upbeats and terminations' group. This last group is related to the appoggiatura, or dissonance, and is derived from the fact that, the dissonance is comprised of a focal point, or accent, that is framed by a preparation and a resolution (Johnson 1975, 19). Messiaen takes these three components of preparation, accent and resolution and expands them, freely using them in combination or in isolation, adding that 'the upbeat and the termination may be separated from the accent by a rest, and even exist in the absence of any accent' (Messiaen 1944, 56).

Messiaen's 'pedal group' is in effect an ostinato, with the arbitrary renaming serving little practical purpose. Pople comments that 'this terminology alludes to the so-called "pedal-notes" that in many works by J.S. Bach, for example, are sustained in the bass underneath changing harmonies' (Pople 1998, 25). Example 29 again shows the cello part from the *Quartet*, with this excerpt the 'pedal group' that repeats.

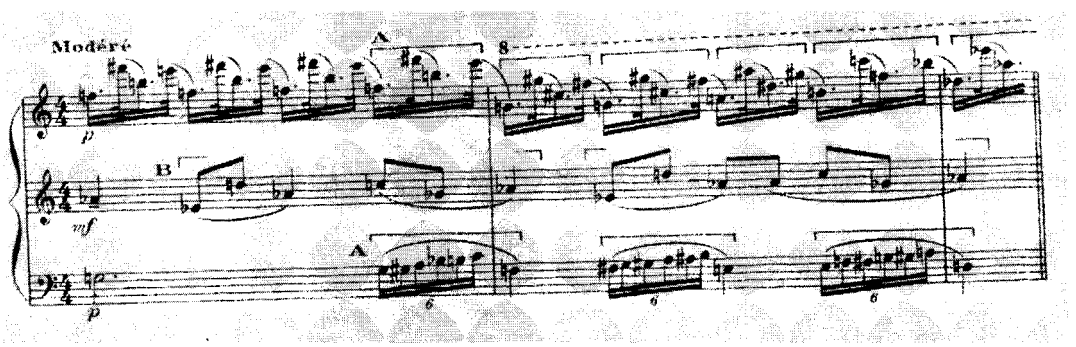
Example 29



Similarly, the 'embellishment group' also has a name outside Messiaen's distinct tonal world; the cadenza. Johnson suggests that the name-change is justified, saying there is 'a fundamental difference between Messiaen's use of them and their traditional usage: previously they played a role subsidiary to the basic harmonic structure and form of a piece, whereas in Messiaen they are fundamental (as he admits) in providing the means whereby a movement may be extended or developed' (Johnson 1975, 20). In comparison to the 'upbeats and termination' group, which may begin and end on any note, the 'embellishment group' shares the same opening and closing note.

The last of these enlarged groups is the 'passing group'. Here the concept of a passing note, defined as 'the symmetrical movement' of a melody note, is applied to a melodic cell or chord (Messiaen, 1944, 56). Example 30, taken from Messiaen's *Technique of my musical language*, shows in brackets the symmetrical movement of different melodic fragments.

Example 30



The chordal structures Messiaen creates within his modes may be classified under this group, as they are the symmetrical, diatonic movement of specific vertical structures.

Rhythmic innovations

The study of Hindu and Greek rhythms is the primary source for most of Messiaen's rhythmic innovations. He was first introduced to Greek rhythm by his organ teacher, Marcel Dupré, and his music history teacher, Maurice Emmanuel, with the later being the real expert in the field. According to Griffiths, 'Emmanuel wrote much on ancient Greek rhythm and music, including a long article in Lavignac's encyclopaedia, which would have been Messiaen's principal source for this and other exotic information' (Griffiths 1985, 26). Messiaen too credits Emmanuel for his interest in Greek meter, adding that this is the source of both his predilection for prime numbers and his unconventional approach to meter.

'[Greek meter] will instil in us already a marked predilection for the rhythms of prime numbers (five, seven, eleven, thirteen, etc.). Going further, we shall replace the notions of "measure" and "beat" by the feeling of a short value (the sixteenth-note, for example) and its free multiplications, which will lead us toward a music more or less "ametrical."' (Messiaen 1944, 14)

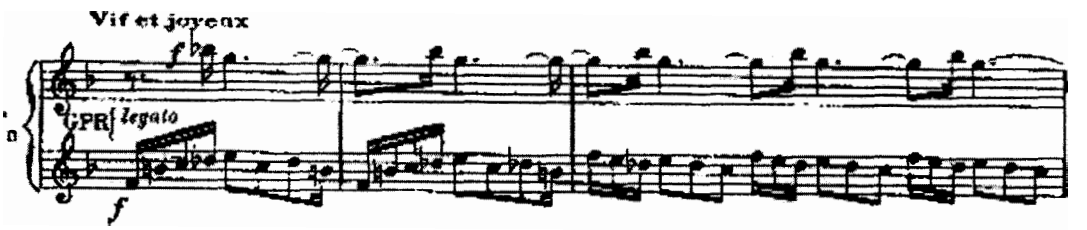
This concept of replacing notions of measure and beat with a short value is also used in Indian rhythmic theory and is known as the mâtra (Johnson 1975, 32).

'Messiaen's study of Greek meter was not the only catalyst for this stylistic development, for he had also made a study of classical Indian rhythms.' (Pople 1998, 4)

According to Simundza, Messiaen's other rhythmic principals were derived from Indian rhythmic theory, in particular his study of the list of 120 decî-tâlas, which he discovered through Lavignac's encyclopaedia (Griffiths 1985, 49). These principals include added values, various forms of augmentation and diminution and non-retrogradable rhythms.

The rhythmic equivalent of 'added notes', Messiaen uses added values to disrupt the flow of time and meter, causing bars of 3/4 to become bars of 7/8 when one of the values is dotted or a quaver or rest is added. This also has the effect of transforming any traditional time signatures into odd meters. Example 31, taken from the fourth movement of *La Nativite du Seigneur*, shows the altering effect of added notes.

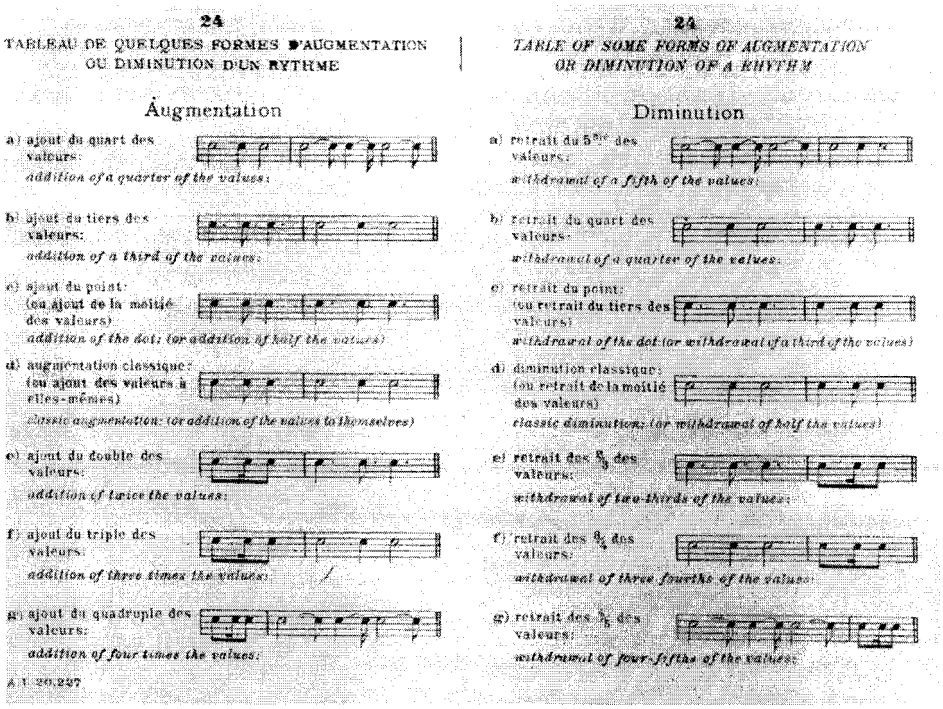
Example 31



Augmentation and diminution are employed in the traditional ratios of doubling and halving as well as in inexact ratios, augmenting the technique itself. Messiaen suggests that one may alter part of a rhythm, rather than the whole thing,

and that the augmentation or diminution need not be double or half, suggesting that a value may be augmented/diminished by any amount and that 'augmentation by addition of the dot is much more interesting' (Messiaen 1944, 18). Example 32 shows Messiaen's examples of augmentation and diminution.

Example 32



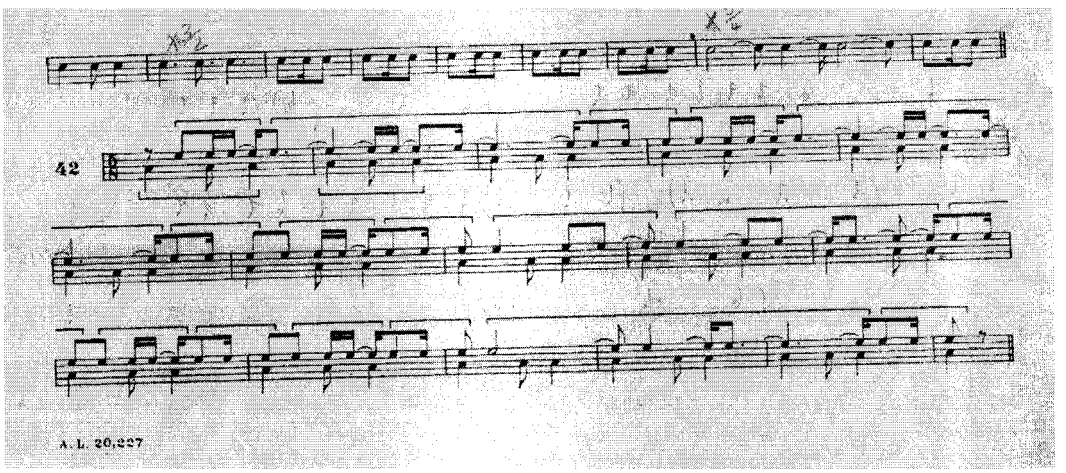
Relating them to the 'charm of impossibilities', non-retrogradable rhythms are exactly as the name implies; rhythms that read the same from right to left as they do from left to right. Messiaen describes this limitation as being the rhythmic equivalent of his modes.

'These modes realise in the vertical direction (transposition) what non-retrogradable rhythms realise in the horizontal direction (retrogradation).' (Messiaen 1944, 21)

In spite of this Pople points out that the analogy between the modes of limited transposition and non-retrogradable rhythms 'can hardly be said to go beyond a certain abstract symmetry' (Hill 1995, 40).

When two or more of the aforementioned techniques collide complex polyrhythms may be created. Messiaen notes that on a simple level a polyrhythm will be created from the juxtaposition of two rhythms of unequal length, but more complex polyrhythms may form when augmentations, diminutions or the retrograde of the same rhythm are layered (Messiaen 1944, 22). Example 33 shows Messiaen's example of this technique.

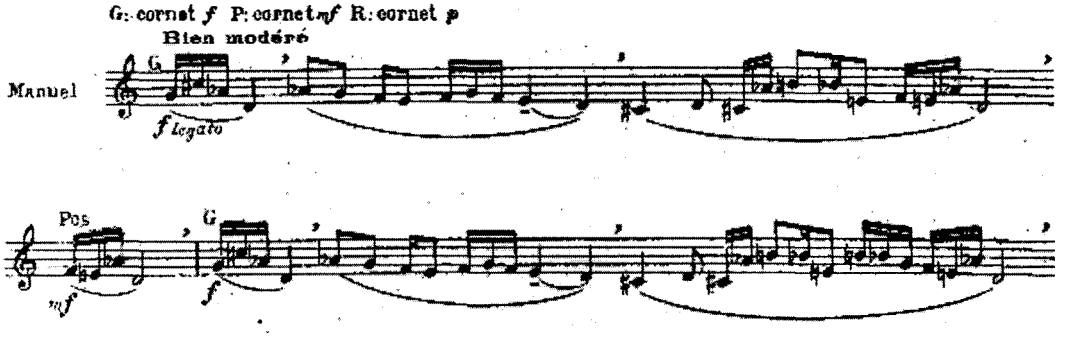
Example 33



The use of displacement and rhythmic canons may also be used to complicate things further. Such isolated treatment of rhythm causes many of these techniques to become apparent only upon analysis, as with varying melodic and harmonic material it becomes extremely difficult to aurally perceive.

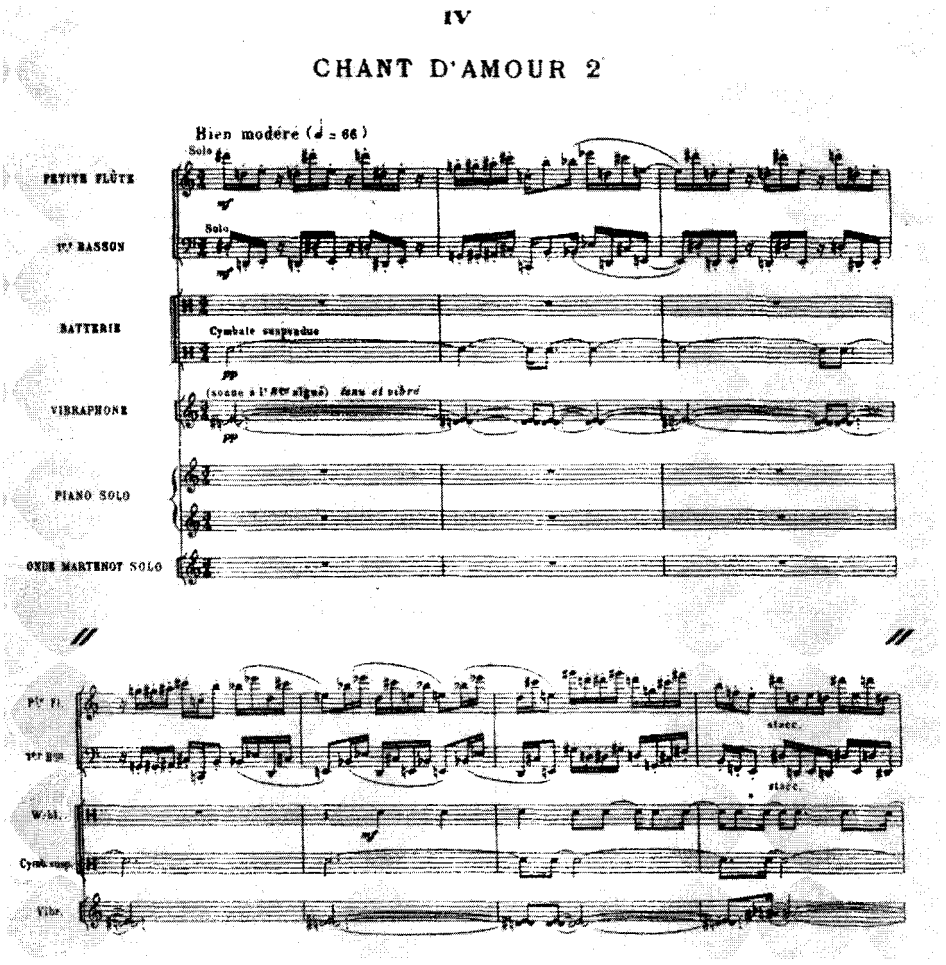
Messiaen struggled to find appropriate notation methods to cope with much of his rhythmic innovation. When writing for solo instruments or small chamber combinations he would write 'the exact values, without measure or beat' (Messiaen 1944, 28), using bar lines to mark phrases and the cancellation of accidentals. Example 34, taken from the first movement of *Les Corps Glorieux,* shows Messiaen's use of this form of notation.

Example 34



This approach is not practical when dealing with orchestras and other ensembles of more than a few musicians, so for larger ensembles Messiaen usually either writes with changing time signatures or in one unchanging meter, with the true rhythm being brought forward through the use of accents.

Example 35



Example 35, taken from the fourth movement of Messiaen's *Turangalila Symphonie*, shows a melody of 25 semiquavers forced into a 3/4 meter, causing the repetition of the melody in the third bar to be displaced by one semiquaver.

Simundza points out that, though Messiaen arrived at these principals through his study of the decî-tâlas, it does not mean the decî-tâlas are actually founded on them, as 'the principals of formation of rhythmic material which Messiaen arrived at through analysis of the talas, result from Western musical thought' (Simundza 1988, 65).

'The Indian rhythmical patterns adopted, isolated from their cultural and social background and cut off from their own musical heritage, become musical material in the Western concept. Such new musical material, integrated into European thought, music and art, becomes merely a means of enrichment of European music, and is no longer a valuable entity in itself." (Simundza 1988, 65)

It is for precisely this reason though that Messiaen's music is so unique, for though it uses materials outside of the Western musical tradition, thus relegating its analysis in terms of that tradition, it cannot be analysed according to Indian musical practice. Messiaen must thus be analysed in terms of Messiaen.

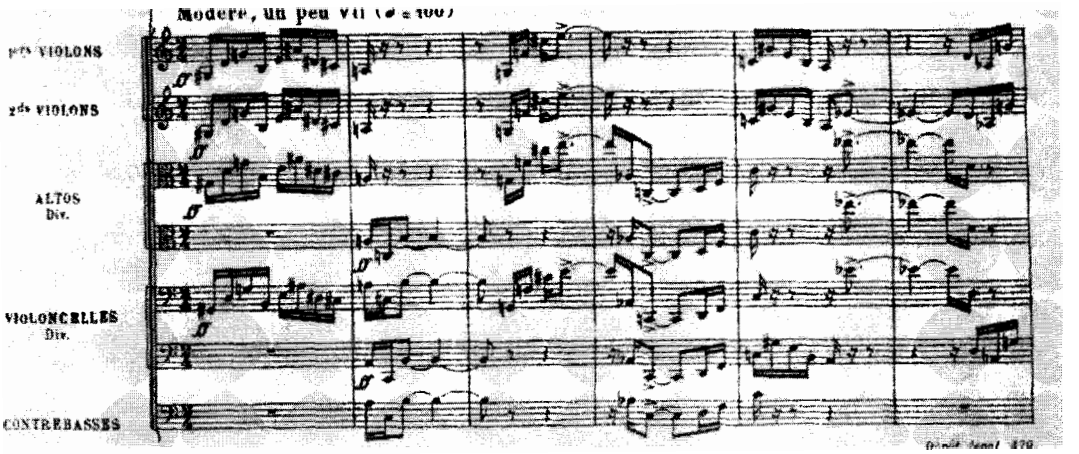
Messiaen also employed the use of serial techniques, applying '12-note methods to rhythmic values' (Griffiths 2006). The extreme of this is found in his *Mode de valuers et d'intensités*, whereby the elements of rhythm, duration and dynamic are all serialised.

Melodic devices

Messiaen's 'charm of impossibilities' finds its melodic incarnation in the interval of a tritone. He states his affinity for it in his *Technique of my musical language*, attempting to justify his preference unnecessarily by again mentioning the perceived F sharp when low C is struck (Messiaen 1944, 31). Another reason for its frequent use could be the fact that mode 2, one of Messiaen's most frequently used modes, is based on the diminished seventh chord, which is comprised of two tritones. Griffiths suggests that the attractiveness of non-retrogradable rhythms lies 'in the way

such rhythms might appear as images of the reversibility of time' (Griffiths 1985, 37). The same could be said of the frequent use of the tritone.

Example 36



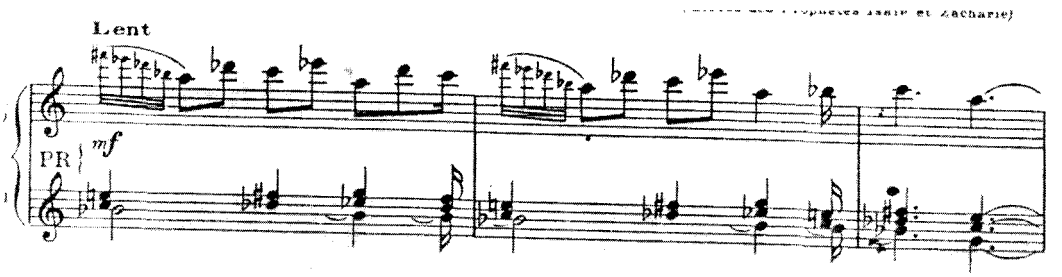
Example 36, taken from the opening of *Turangalila Symphonie*, shows the frequent use of tritones and sixths. Messiaen specifies the sixth as an important interval, with its use being linked to the added sixth chords of Debussy. The chromatic melodies he attributes to Bartok are mentioned too, shown in the *Turangalila* excerpt of example 37.

Example 37

As well as a preference for certain intervals, Messiaen has certain preferred melodic contours. The most used of these is the 'Boris motif', comprising of the first five notes of Mussorgsky's *Boris Godounov*. This melodic shape is used in different ways, with some more abstract interpretations becoming quite unrecognisable. In its

application the general form of 'two ascending intervals followed by a return to the first note' is usually maintained, though those intervals vary and they may also appear in retrograde or inversion. Interestingly the shape of the melody outlines the letter M. Example 38 shows the opening of *La Nativite du Seigneur,* where this motif forms the basis of the melody.

Example 38

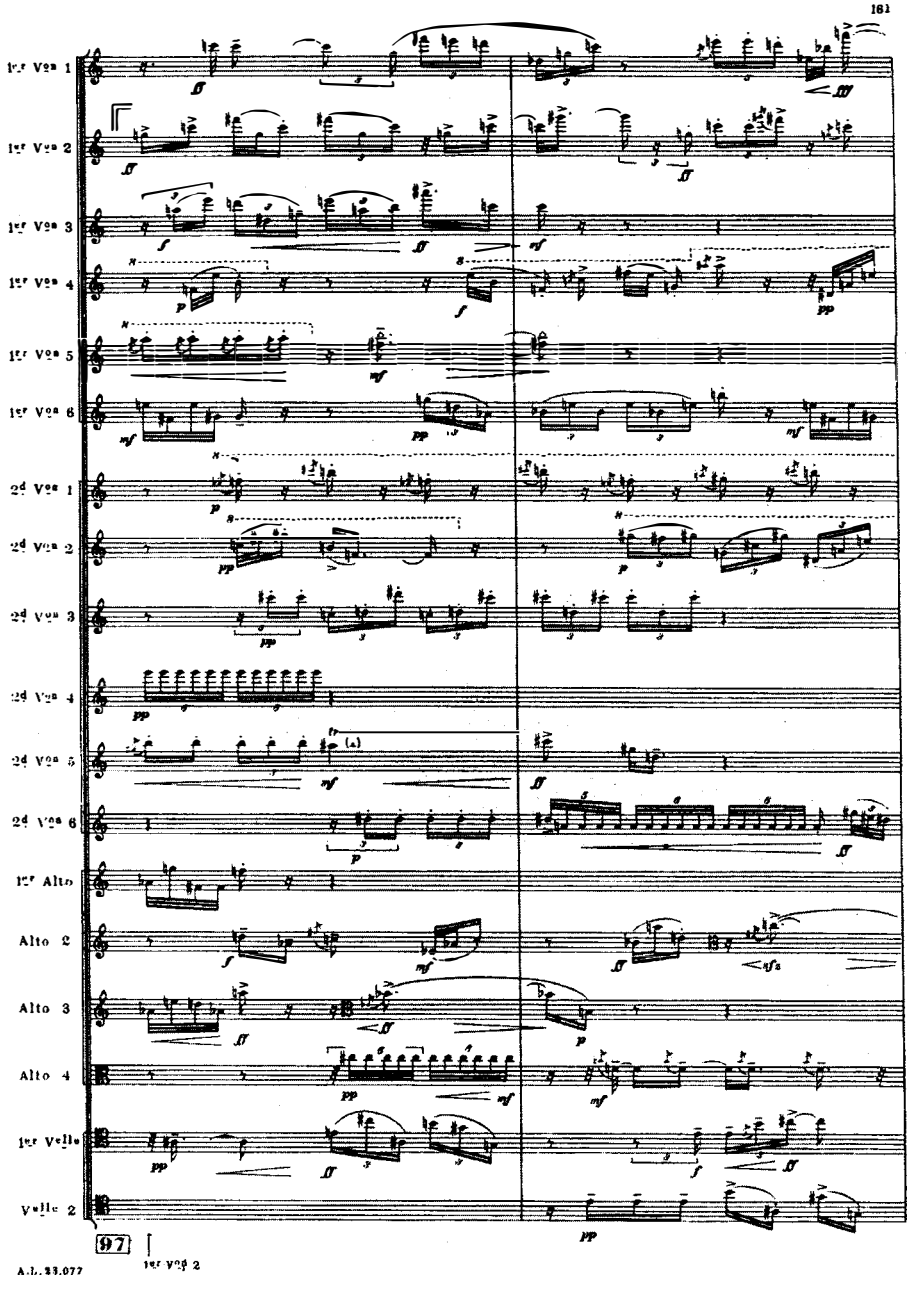


Folk songs, Hindu ragas and plainchant are also quoted as being possible sources for melodic contours.

'Plainchant is an inexhaustible mine of rare and expressive melodic contours.' (Messiaen 1944, 33)

A discussion of Messiaen and melody is not complete without mention of bird song. Bird song, both real and imagined, permeates much of Messiaen's output, with several works, including *Réveil des oiseaux, Oiseaux exotiques* and *Catalogue d'oiseaux,* being composed either entirely or predominantly with bird song. The 'epode' of *Chronochromie*, shown in example 39, is also comprised entirely of bird songs, laying out the songs of French birds for 18 solo strings in a complex tangle.

Example 39

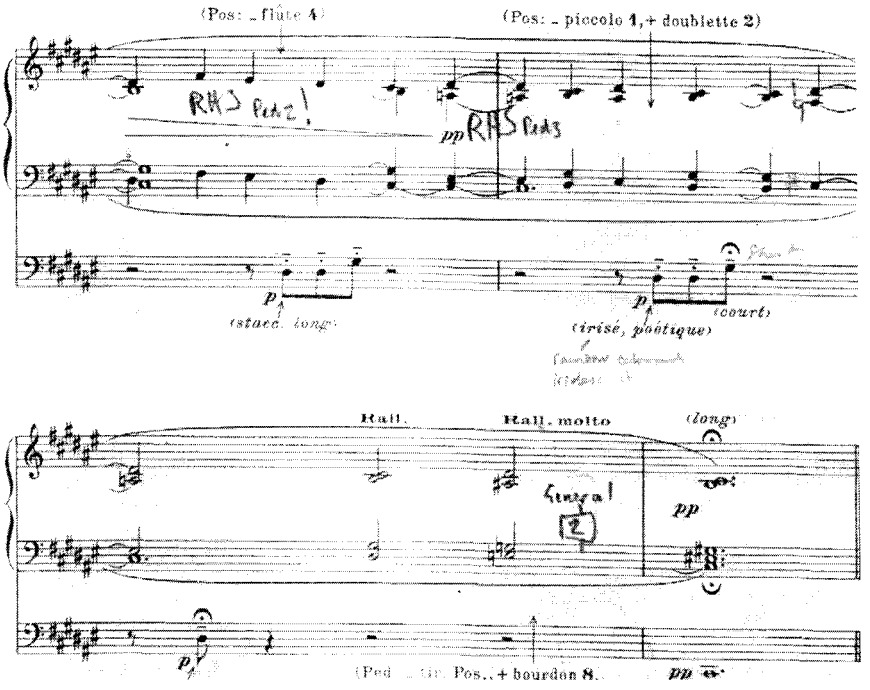


In addition to the literal portrayal of birds, synthesised bird song is used, creating imitations based on the same intervallic and rhythmic patterns that occur in the transcribed versions.

All of the above mentioned melodic materials are subjected to techniques of development to generate further material. One such technique is 'development by

elimination', which Messiaen credits to Beethoven and describes as being 'at the basis of all thematic life' (Messiaen 1944, 35). The development is achieved through the successive fragmentation and repetition of a melody, gradually reducing it down to a single or note. This is demonstrated in example 40, taken from the ending to *Le Banquet Celesté.*

Example 40



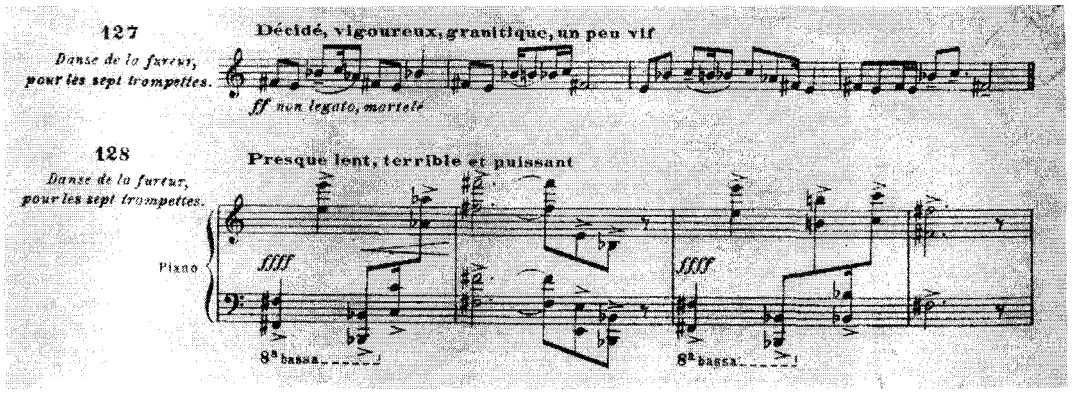
Another developmental 'charm of impossibilities' is the 'interversion' (re-ordering) of notes or, more specifically, the symmetrical permutation of a melodic sequence, used most notably in *Chronochromie* (Samuel 1986, 48).

'The unfolding of permutations in a certain reading order, which is always the same, results in a limited number of permutations, and instead of obtaining absolutely

astronomical figures, one is stopped because one arrives again at the chromatic sequence of note-values and the first permutation.' (Samuel 1986, 48)

The changing of register is another developmental tool outlined by Messiaen. He credits this to Alban Berg, specifying his *Lyric Suite*, and demonstrates how jumping to extreme registers may create drama and tension. This technique does not so much refer to the changing of register for a whole phrase or idea, though that does occur, but more for individual notes, creating a stark, angular contrast in the melodic contour. This is demonstrated in example 41, taken from the sixth movement of the *Quartet for the end of time*. When used with other devices this can turn a fragment of a few notes into an extended musical phrase.

Example 41

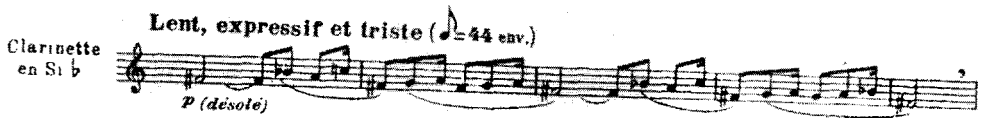


Structure and form

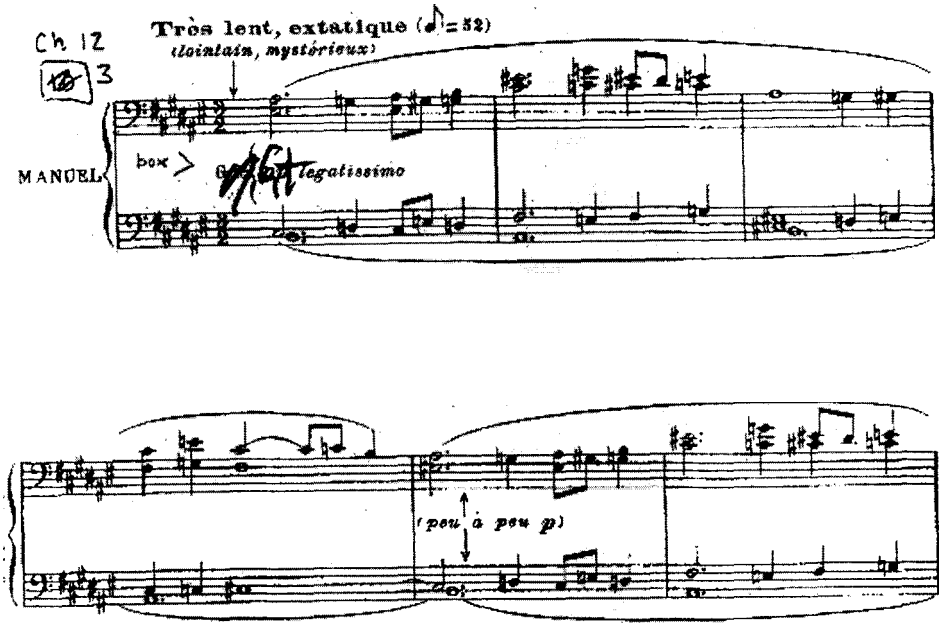
Closely related to development is form and in particular the idea of 'musical sentences'. In his *Technique of my musical language* he outlines three types of sentences; binary, ternary and song sentence (Messiaen 1944, 37). Each type of sentence includes a theme, made up of an antecedent and a consequent (question and

answer), and usually one or more commentaries (developments). The antecedent and consequent of a theme are often related, with the latter being a slight variation or embellishment of the former and often beginning the same. Examples 42 and 43, taken from the *Quartet* and *Le Banquet* respectively, demonstrate this.

Example 42



Example 43



Messiaen describes the form of a binary sentence as being: theme, first commentary – being inflected more or less toward the dominant, theme and second commentary (Messiaen 1944, 38). The description of a development being 'inflected more or less towards the dominant' is a questionable one in relation to Messiaen's

musical world and the composer himself certainly does not adhere to this requirement in a traditional sense.

Ternary form is described as being: the theme and the consequent of the theme, the commentary and the consequent of the commentary, followed by the theme and consequent of the theme. Song sentence follows the form of theme, middle period and final period, with the final being based on the theme but not a literal replaying (Messiaen 1944, 37).

Messiaen mentions other possibilities of form that all appear to be variations and combinations of the building blocks of themes and commentaries. It appears likely that many of the options discussed have been arrived at through retrospective analysis, rather than conscious composition. What is certainly conscious though is the use of these building blocks, creating intentional structure on a smaller level with the resultant larger form being arrived at naturally.

Other traditional formal devices are used too, though in less than traditional ways. Messiaen deconstructs such forms as fugues, sonatas and plainchant forms, taking from them what he deems to be the important aspects. Through this he discusses the use of strettos, episodes and developments removed from their usual context, causing them to take on a new identity. Things such as recapitulation are discarded, as they have 'become obsolete' (Messiaen 1944, 40).

The approach of deconstruction and the separate treatment of elements are not unique to Messiaen's handling of form, but are indicative of his approach to every aspect of music. He treats the different musical elements quite separately, often devising and combining rhythmic, melodic and harmonic ideas that are independent of one another. On the first movement of the *Quartet for the end of time* Pople comments that 'the conceptual separation of the pitches and rhythms in the cello part

is an altogether remarkable feature' (Pople 1998, 21). This is exemplified in his musical discussions and interviews, where he clearly defines the areas of rhythm, melody, harmony and form as each having their own unique set of compositional devices and tools. It is also reinforced by Messiaen's itemised dissection of his music in the *Technique of my musical language*, where he details many of his various compositional devices in isolation, demonstrating an 'obsession for categories and catalogues' (Hill 1995).

Demuth suggests though that 'too much emphasis has been placed by Messiaen's admirers, and by Messiaen himself, on the processes. This has tended to make them appear to be ends in themselves and not simply means. It is far better to accept the music as it stands, otherwise attention is drawn from the essential quality of Messiaen's music, the musical and emotional satisfaction it gives; the whys and wherefores are a matter for the studio, later.' (Demuth 1955, 4)

Chapter III

– Transforming Messiaen –

Introduction

Throughout the history of music composers have been inspired to write work in homage to other composers. In the Renaissance for example, upon the death of a famous teacher, their students often wrote tribute pieces (plancti) in memory of their master. This tradition can be traced through to this day and in many ways my own work, *Auguries of Innocence,* can be seen as a tribute to Messiaen. The art of the homage however raises some interesting issues for a composer, the most problematic being how to incorporate into their own work the music of the figure to which homage is being paid. In order to avoid lapsing into plagiarism, a fine balance must ideally be struck between the language of the dedicator and the dedicatee, with the composer putting the language of the one who's homage is being paid through 'the deforming prism' of their own language (Messiaen 1944, 39).

In his organ work *Le Tombeau d'Olivier Messiaen*, Naji Hakim attempts to do just this.

'It is dedicated to Messiaen's widow, Yvonne Loriod, and in effect is an act of homage to the composer, since it draws on his musical techniques and even quotes from his works.' (Jack 2003)

The context of such a work is relevant, with Hakim composing this particular work for his 1993 inauguration as Messiaen's successor at the church of La Trinité. With Messiaen passing away less than a year before, and the performance of this

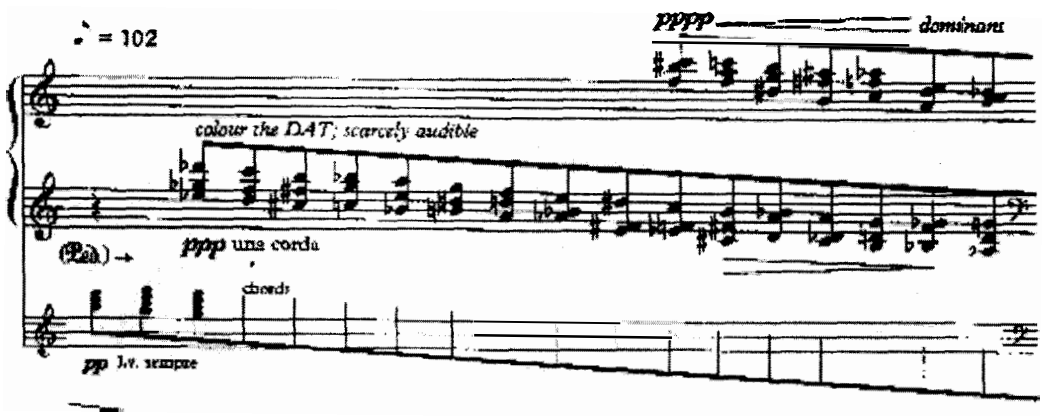
work occurring on the very organ for which Messiaen wrote, the liberal quoting and explicit use of Messiaen's own music is understandable. In addition to the use of Messiaen's language though Hakim does apply his own slant, for in the second movement he uses 'a Maronite melody from Lebanon, Hakim's birthplace' (Jack 2003).

Another composition paying homage to Messiaen is Jonathan Harvey's *Tombeau de Messiaen.* Written in 1994, this too is a requiem, with Harvey describing it as 'a modest offering in response to the death of a great musical and spiritual presence' (Harvey 2006). Messiaen flirted briefly with electronic music, but it was not a significant part of his musical contribution. As a result, the fundamental nature of Harvey's work, being composed for piano and pre-recorded DAT tape, is not conducive to plagiarism and, while Messiaen's influence is apparent, the outcome is inherently different. This is in contrast to Hakim's work, where the medium of the organ is very much at home in Messiaen's musical world. A further difference is in the fact that Hakim's use of Messiaen is broad, drawing on literal quotes as well as compositional techniques, whereas Harvey's influence is quite specific.

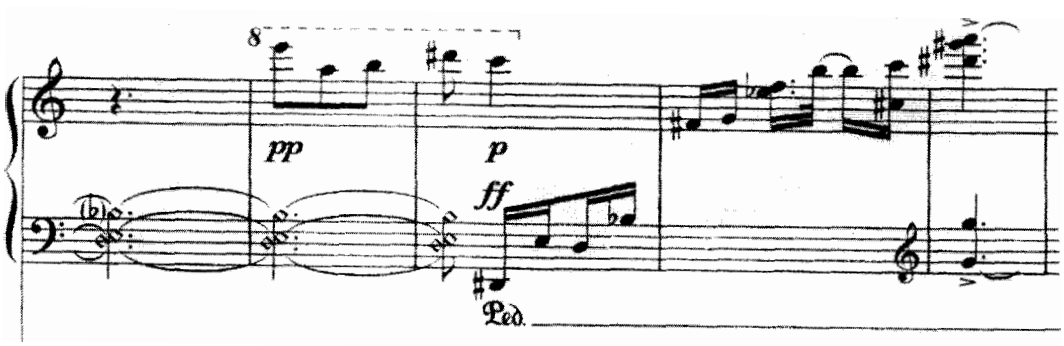
'Messiaen was a protospectralist, that is to say, he was fascinated by the colours of the harmonic series and its distortions, and found therein a prismatic play of light. The tape part of my work is composed of piano sounds entirely tuned to the harmonic series – twelve of them, one for each class of pitch. The 'tempered' live piano joins and distorts these series, never entirely belonging, never entirely separate.' (Harvey 2006)

Here Harvey is exploring Messiaen's ideas of added resonance. At points in the score he instructs the live piano to 'colour the DAT; scarcely audible' and at other times he has keys silently depressed while other melodies are played above it, bringing out overtones of the depressed notes (Harvey 1996). This manipulation of the harmonic series affects the timbre, colour and texture of the music. The following two examples from Harvey's score demonstrate this technique.

Example 44



Example 45



Both the above examples exist within the oeuvre of 20th century 'classical' music, where Messiaen's influence is significant. His influence, however, on the world of jazz is much less tangible, having been especially neglected in the area of

large ensemble jazz composition, which is the primary concern of *Auguries of Innocence*. There are precious few who cite Messiaen as an influence, though there are surely many whom he has shaped indirectly. Guitarist Keith Yaun is one of the few who has explicitly shown Messiaen's influence, though even there the outcome of that influence is ambiguously related to the source. Yaun's album *Amen* (2000) is a collection of free improvisations based on Messiaen compositions and is performed by his quartet of two guitars, percussion and baritone violin. Yaun is quick to stress that these are not in any way literal performances, or even rearrangements, of the original pieces and that the album is more an improvised recomposition of the chosen works (Yaun 2000, 7). Being a free improvisation, it is difficult to pinpoint Messiaen's specific musical techniques, with his language seeming to come across in a more abstract manner. Messiaen's treatment of musical elements as being separate and his approach of deconstructing these elements are applied by Yaun to the compositions, breaking them down to create source material for the basis of improvisation. Messiaen's broader ideas of time and eternity are also explored, with none of the pieces actually having any sense of time or meter.

In the liner notes to Amen Stuart Broomer suggests that 'Yaun had succeeded in transposing the compositions into his own language and the band has transformed it into another idiom, allowing it to grow into new forms in a perfectly organic way that suspends the composed and the improvised' (Yaun 2000, 6).

In more mainstream jazz, Brad Mehldau also cites Messiaen as an influence, though no further explanation of this statement is offered (Mehldau 2005). Mehldau is also a fan of post-rock group Radiohead, with their interest in Messiaen being a possible contact point for Mehldau. On his attraction to Radiohead's music, he states that 'they have a certain harmonic language that's informed by some classical stuff'

(Sklar 2004). This 'classical stuff' is in part Messiaen, for Jonny Greenwood, Radiohead's lead guitarist and an important song contributor, is an avid fan of Messiaen's, incorporating several elements of the composer's music into his own song writing. According to Ross, 'Jonny is fascinated by Olivier Messiaen, the late French composer; it is because of Messiaen that he became interested in the ondes martenot, which is featured in many of the composer's works' (Ross 2001). Greenwood learnt to play the ondes martenot himself, which is featured on the album *Kid A* in 'The National Anthem' and 'How to Disappear Completely', and he dedicated 'Where I End and You Begin', from *Hail to the Thief,* to the memory of Jeanne Loriod, Messiaen's sister in law and a pioneer of the ondes martenot.

Growing up in Paris in the 1920's it is possible jazz too had an effect on Messiaen, despite his rejection of it. At a time of musical retrospect, with the trend of neoclassicism, it is easy to imagine the freedoms and ideals inherent in jazz having an impact on the young Messiaen.

Because of his autonomy from much of the conventions of Western music, analysing Messiaen outside of the context of his own musical language becomes meaningless. As a result, the analysing of *Auguries of Innocence* will be modelled on the general approach taken by Anthony Pople in his analysis of *The Quartet for the End of Time* and the methodology outlined by Rayburn Wright in his text *Inside the Score.* Like Wright, the music will be discussed in terms of the elements of melody, harmony, rhythm etc., but like Pople the analysis will be done according to Messiaen's own language, examining it chronologically with a special focus on the techniques and ideas that are unique to Messiaen.

Messiaen's modes of limited transposition are referred to by Messiaen as being in their 'first transposition', 'second transposition' etc. depending on their

starting note. For two of the most commonly used modes, modes 2 and 3, there exist 3 and 4 transpositions respectively. These (and all other) modes will be referred to by stating the starting note followed by the mode type; thus mode 2 beginning on a G (in it's second transposition) shall be referred to as 'G mode 2'.

Auguries of Innocence: a suite for pipe organ and jazz orchestra

I – to see the world in a grain of sand

There are several key ideas and techniques that recur throughout this movement. The first is the idea of layered repetition, where units of unequal length repeat and get out of sync with each other, creating a complex tapestry that is constantly evolving. The second is the idea of eternity and the destruction of time, while exploring alternatives to conventional development

Structurally the piece falls into three main sections, with the first and third sections being different presentations of the same material and the second section being based on a separate idea. This palindromic form is derived from Messiaen's predilection for 'non-retrogradable' rhythms and structures, which, according to Mirjana Simundza, he discovered through his study of the 120 decî-tâlas (Simundza 1988, 65)

"Whether one reads them from right to left, the order of their values remains the same" (Messiaen 1944, 20)

The central section is also divisible into three parts, creating an overall form of five sections – a number that underpins much of this movement. The first of these

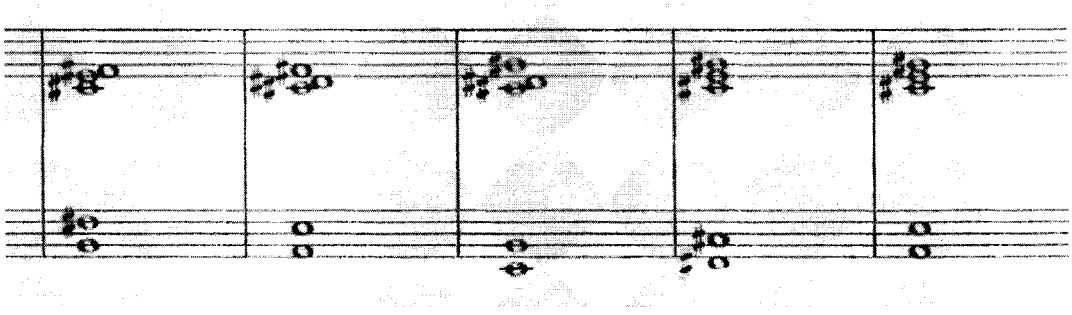
three central parts is an organ solo, the second is a ten bar ensemble passage and the third is a flugel solo. This too adheres to the aforementioned symmetry of non-retrogradable rhythms, creating a loose overall form of – A, solo, B, solo, A1

"[Greek rhythm and plainchant] will instil in us already a marked predilection for the rhythms of prime number." (Messiaen 1944, 65)

Paul Griffiths suggests that part of the attraction to non-retrogradable rhythms is because "such rhythms might appear as images of the reversibility of time." (Griffiths 1985, 37)

The movement opens with a five bar chord progression that repeats in the organ, shown in example 46. With each change the colour of the chord subtly shifts and, though the chords gravitate towards the B suspended chord, there is no definite tonal centre or resolution point.

Example 46



This lack of resolution gives a sense of timelessness and eternity, like the cycle could keep going forever. Where four bars might be more readily anticipated, the repetition of a five bar sequence disturbs the expectation of the listener, confusing

their perception of where anything actually begins or ends. All the chord structures are also common to C# Aeolian scale, resulting in the underlying harmony actually being static. This adds to the notion that the music exists within a single, infinite moment.

"Messiaen attempts to destroy the traditional Western notion of time." (Fulcher 2002, 465)

The spoken text that follows is a quote from Messiaen's *Technique of my musical language* that is then subjected to symmetrical permutations, as applied in *Chronochromie* (Samuel 1986, 48), until the quote is read in its exact retrograde.

"I take the reader's hand, searching in the darkness, where with him I have hoped, guiding him gently toward a restrained light, preparatory to a better understanding." (Messiaen 1944, 7)

The content of the text is significant as it conveys verbally what the composer is attempting musically, leading the listener through an aural explanation of Messiaen's musical language.

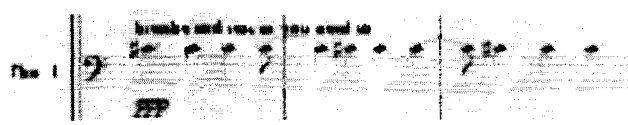
The primary melodic theme, shown in example 47, first appears one minute and twenty seconds into the movement and is sung by a tenor voice. The nine-bar melody (another prime number) is based on a C# minor pentatonic scale and is in the style of plainsong. According to Messiaen "plainchant is an inexhaustible mine of rare and expressive melodic contours." (Messiaen 1944, 33)

Example 47

On each recurrent cycle of this melody it sits over a different harmonic foundation (as the chord progression is five bars long), maintaining interest through these slight changes but still working harmonically due to the common thread of C# Aeolian. Though not working within a mode of Messiaen's devising, this modal approach is common to his music. The principal of subtly changing harmonies to create different colours is also a trait of Messiaen's music, creating aural visions of light through a stained glass window (Messiaen 1944, 27).

The trombones and French horns enter shortly after this, shown in example 48, playing repeated C sharps on the first half of the Indian rhythm Ragavardhana, from the list of 120 decî-tâlas. Messiaen derived most of his rhythmic principals from the rhythms in this list (Simundza 1988, 65). Of all the decî-tâlas, this is the only one Messiaen singles out in his *Technique of my Musical Language.*

Example 48

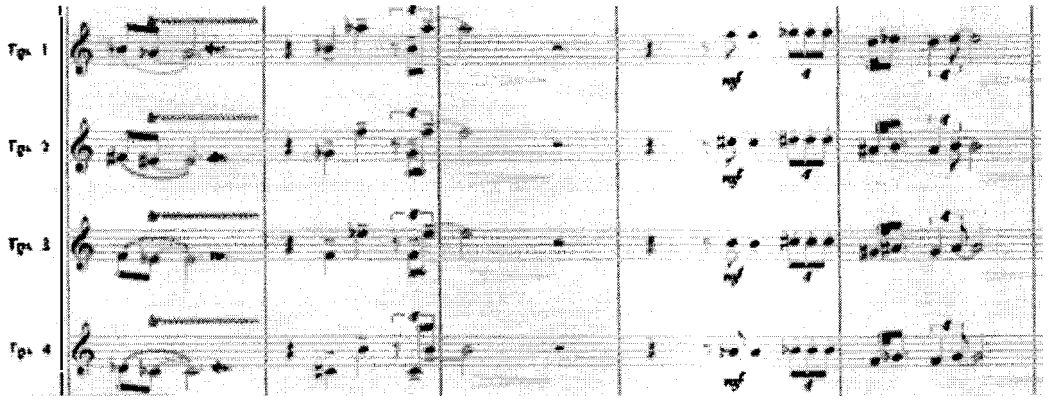


This seven bar cycle sits on top of the five bar chord cycle and the nine bar vocal melody, meaning now 315 bars (or twenty-one mins at this tempo) would need to pass in order for an exact repetition to occur. This technique of layering cells of different lengths is employed in Messiaen's *Quartet for the end of time*, where in the first movement a piano cycle of nineteen different chords set to seventeen different

rhythmic values is juxtaposed against a five note cycle in the cello that is set to fifteen different note values (Messiaen 1957, 1-2). Of all the numbers in play in both pieces the only one that is not a prime number is still closely linked to this predilection, as it is the product of two other prime numbers; three and five.

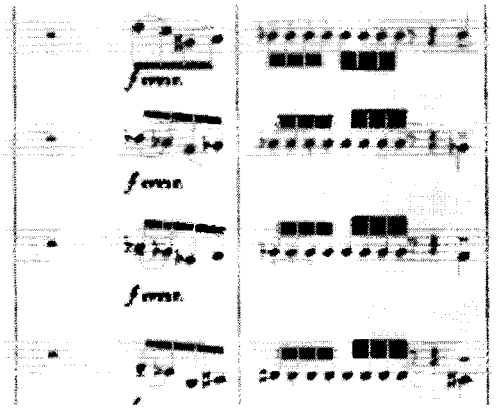
Shortly after, the soprano enters on the same melody as the tenor, but displaced by a bar, creating a simple canon on the main theme. From here on this section builds decisively faster, with the next new element to be added being the trumpets with two clarinets, oboe and flute.

Example 49



Shown in example 49, this collection of instruments introduces a new sound to the mix, playing melodies comprised of rhythmic and melodic patterns common to Messiaen's birdsong imitations. All the birdsong influenced melodies in these instruments still operate within the established sound of C sharp Aeolian, and are harmonised accordingly too, except for bar seventy-two, shown in example 50, where there is a hint of the mode 2 melodies to come.

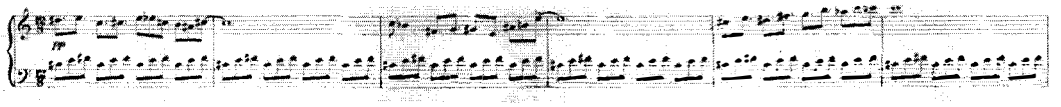
Example 50



As this section builds flutes and bass clarinet join in the tenor part and the saxophones eventually join the soprano in dense, but diatonic, chords. It crescendos until the eventual climax that leads into a time change to 12/8 and the beginning of the improvised organ solo.

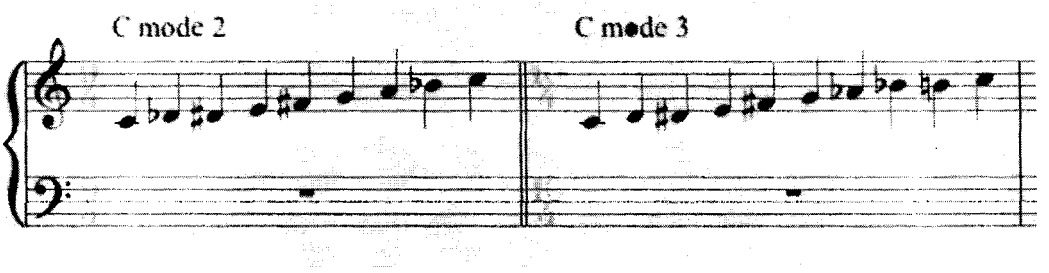
Behind the organ solo a new figure is introduced and developed until it fully matures in a ten bar ensemble passage at the conclusion of the solo.

Example 51



This figure, shown in example 51, is based on a fusion Messiaen's modes 2 and 3 (example 52). A three-note ostinato, or 'pedal group', in the piano supports it, with the chords of the opening eventually being added underneath.

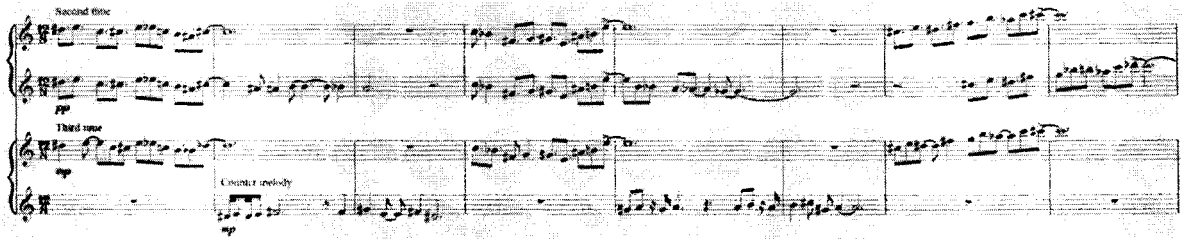
Example 52



The choice to initially introduce a melodic figure, rather than chords, behind the solo was a deliberate one in order to allow the organist harmonic control. In working with a classical organist it seemed more appropriate to provide them with a setting that held some familiarity and wasn't a conventional jazz solo setting. In practice this approach proved to be less successful than anticipated, as the context of an improvised solo in a set time feel and length ended up being just as unfamiliar as a chord progression.

The background figure is repeated behind the soloist and, on its second appearance, is developed slightly, with an answer phrase being introduced on the third appearance. Each version is shown in example 53 for comparison.

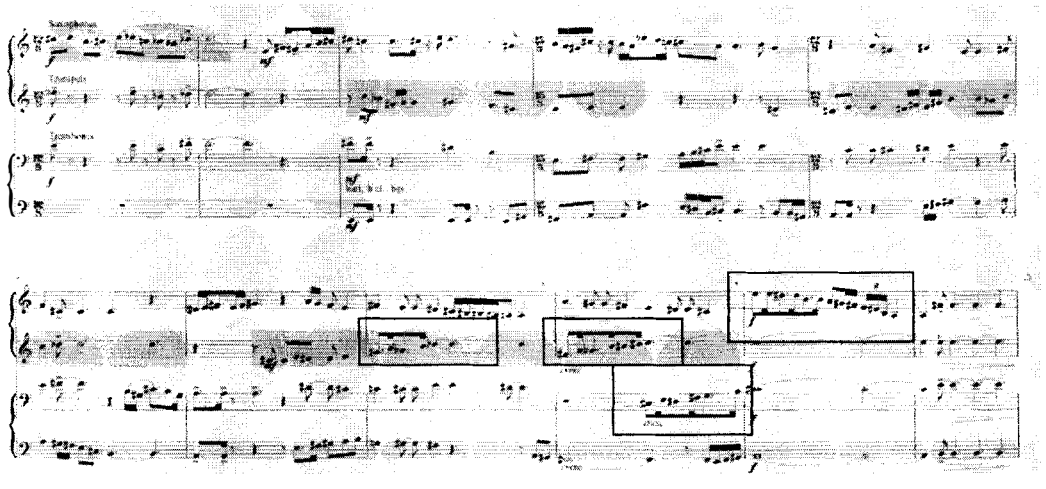
Example 53



The third time also sees the melody harmonised a fifth above. The harmony part is dynamically softer and is less strongly orchestrated, causing it to become a timbre effect rather than a harmony, emulating the nazard stop of the organ.

This melody climaxes in the ten bars at E following the organ solo. In this section, shown in example 54, there are four separate parts weaving together creating a complex texture. In this passage the background melody that was introduced and repeated is now stretched and twisted around, with the last phrase being developed further through fragmentation, rhythmic manipulation and sequencing. Rhythmically, techniques of augmentation and diminution are used in the development as it evolves to an implied 6/4 feel over the 12/8 (shown in the boxes). The final phrase is also developed melodically, with the final chord being delayed so as to catapult it into the flugel solo.

Example 54

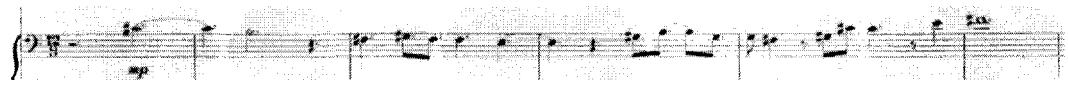


"[In augmentation or diminution]... the values of the proposed theme are generally doubled or diminished by half. We ourselves shall have the statement of the rhythm followed by its immediate augmentation or diminution, and according to more

or less complex forms. With very inexact augmentations or diminutions, one arrives at making rhythmic variants rather than augmentations or diminutions properly so called." (Messiaen 1944, 18-19)

The ensuing flugel solo is the most typically jazz moment in this movement. The chord progression for the solo is again the recurrent five bar cycle, creating more interesting, less conventional phrases. Trombones enter midway through the solo with a melody that is reminiscent of the opening pentatonic phrase, using many of the same notes and melodic cells but not always in the same way. This is shown in example 55 and anticipates the reintroduction of the opening melody that follows.

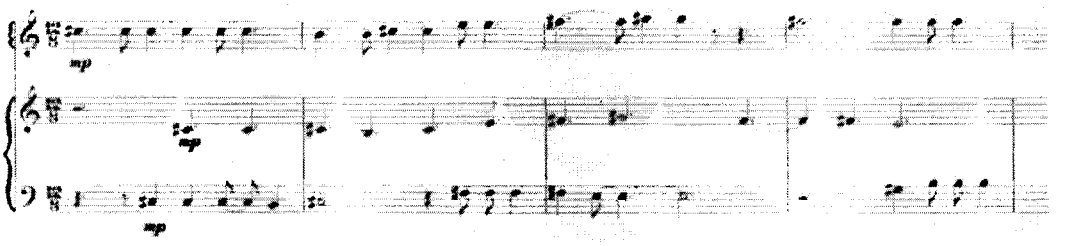
Example 55



Saxophones and woodwinds enter over the top of this with both rhythmic and melodic ideas from the previous ten-bar climax, while the trumpets enter with a literal replaying of the opening melody in the background, setting up the return of this melody to the forefront.

G sees a return to the opening melody, but now imposed over the 12/8 rhythmic time-feel established from the organ solo onwards. The two previously separate musical ideas now collide. The concept of layering repeating ideas of different lengths returns here, but in a slightly more complex manner. Rather than having different ideas layered, or the same idea displaced, we now see the same melody going by at different rates, creating an increasingly busy heterophony. This is shown in example 56.

Example 56



The melody is presented in three different ways, each with a different underlying pulse – crotchet pulse, dotted crotchet pulse and minim pulse. It begins at letter G with the dotted crotchet variety (eight bars long, as opposed to nine at the beginning) set against the crotchet variety (six bars long). We then see a one bar displacement of the crotchet variety added at bar 164 before the minim variety (eleven bars long) enters at bar 172. With these three cycles juxtaposed it would require 528 bars, or 35.2 minutes, to pass before the listener would hear a literal repeat. This concept is discussed by Messiaen in his *Technique of my musical language* under the title of 'superimposing a rhythm over its augmentation' (Messiaen 1944, 23)

In addition to the heterophonic layering, the mode 2/3 melody that underpins the middle section of the movement is juxtaposed over the top from bar 180. This melody does two cycles before fragmenting and breaking down to sustained chords. Throughout this section the soprano and tenor voices continue their melodies, while the rest of the band plays sustained swelling chords. The trombones, French horns and flutes now play a melody, shown in example 57, that is based on dotted minims and follows the melodic contour of the pentatonic theme. This further stretching of time, in conjunction with the breaking down of the drums to free time, reiterates the ambiguity and irrelevance of time itself.

Example 57

The piece finally settles on an Amajor7 chord, which is the fourth chord of the five bar cycle. This lack of resolution confirms the fact that the chord cycle that has recurred throughout the entire movement is in fact a moment in time with no beginning or end.

II – a heaven in a wild flower

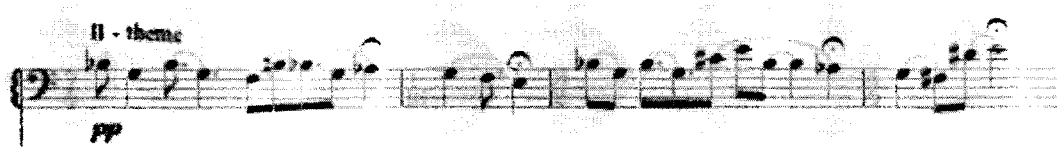
This movement also revolves around a few key concepts, the first of which is the idea of non-functional harmony. In much of the movement harmony is treated as a means to achieving a particular colour, texture or feeling, rather than as a source of motion or development. As a result there is often not one particular mode or tonality in play, but rather a layered polytonality. The influence of birdsong is also used extensively, both in the improvised organ parts and in the notated ensemble parts. Messiaen's rhythmic techniques for variation and development are also frequently implemented and the melodic contours are also typically Messiaen, as is often the interval choice. As in the first movement, perceptions of the nature of time are also explored, with the sense of any measure of time being distorted through different techniques.

The structure of this movement is, like many other aspects of it, unconventional and non-functional. It is built on the idea of presenting one theme in different harmonic settings and 'colouring' it differently.

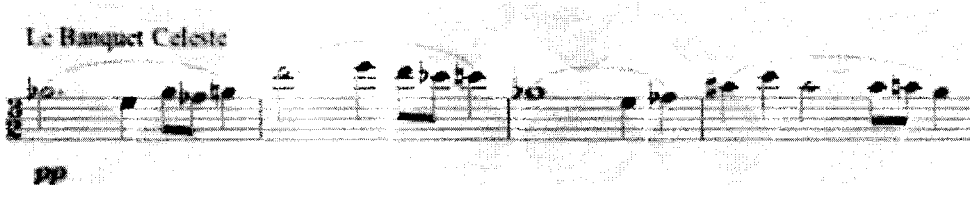
"The classic tonalities had a tonic. The ancient modes had a final. My modes have neither a tonic nor a final; they are colours. The classical chords have attractions and resolutions. My chords are colours. They engender intellectual colours, which evolve along with them." (Samuel 1986, 62)

The main theme of this movement is presented in four different ways. The first three of these occur consecutively at the beginning of the movement. Following the third presentation is an orchestration of the first four bars of Messiaen's *Le Banquet Celesté* (from which the main theme is derived) that is then developed and fused with a more jazz orientated approach to harmony and chord voicing. This development then flows into an improvised alto saxophone solo, before concluding with the fourth presentation of the main melody, creating an overall form of A, A1, A2, B, C, A3. When the main theme of this movement is compared to the theme of *Le Banquet Celesté* one can see that the melodies emphasise the same notes, while the melodic contours are also very similar.

Example 58



Example 59



The movement opens with a pedal B in the organ and bass, while the drums and percussion contribute atmospheric textures. The organ enters in bar two with quiet improvised birdsong imitations. All this creates a subtle texture reminiscent of nature, with the lack of pulse distorting the listener's perception of time and again playing into notions of the eternal.

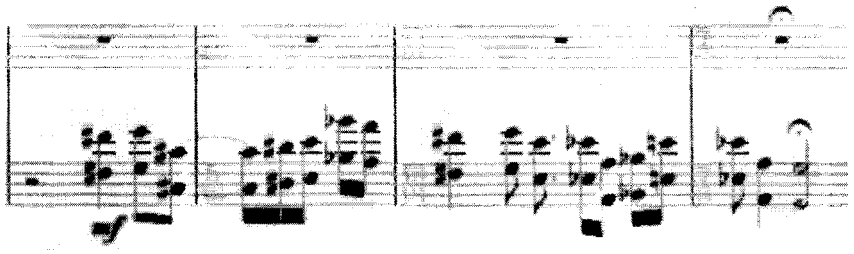
Bar three sees the alto saxophone enter with the first presentation of the main theme as a monody (see melody above). This section is written without a time signature, with bar lines outlining phrases rather than meter. The rhythm is instead felt as multiples of a small unit, in this case the semiquaver, with added values being used a great deal to disrupt any sense of pulse. This melody is predominantly in mode 2 beginning on G.

"The [first method of notation] consists of writing the exact values, without measure or beat, while saving the use of the bar-line only to indicate periods and to make an end to the effect of accidentals." (Messiaen 1944, 28)

This approach is derived from Messiaen's study of Indian and ancient Greek rhythms, where there is no regular meter and, in the case of Greek rhythm, rhythmic phrases are based on the ideas of arsis (upbeat) and thesis (downbeat).

Minor third intervals and tritones comprise much of this melody, both of which feature extensively in Messiaen's music (Messiaen 1944, 31). This theme is answered by the organ (again, as a monody, shown in example 60) and develops aspects of it. The tritone and minor third are again a feature.

Example 60

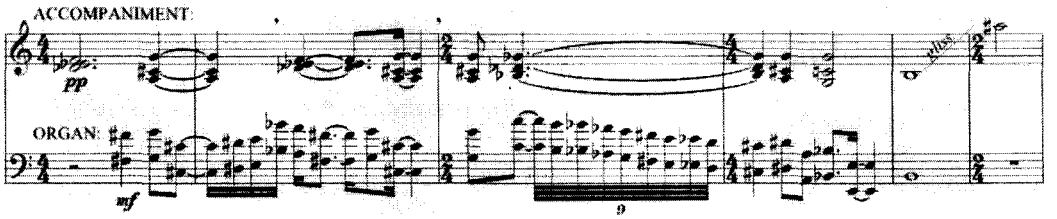


For the second presentation of the theme it is juxtaposed against a texture based, non-functional harmonic setting. For the first 2 bars, the main theme is in G mode 2, but it is set against: C mode 2 in the woodwinds, C mode 3 in the lead trumpet, a chromatically stepping line in the bass trombone and a chromatic cluster in the organ pedals. This results in four separate modal plains sounding simultaneously. In the third bar the modes in operation change to C mode 2, F mode 2, C mode 3 and chromaticism, before returning to the previous combination. Again, this gives an aural interpretation of light through a 'stained-glass window'.

In addition to this poly-modality, the main theme is harmonised a perfect fifth higher in a similar fashion to the first movement, affecting the timbre and emulating an organ stop.

Again the main theme is followed by a development in the organ, though this time it has harmonic accompaniment. The development is extended this time and alternates between C mode 2 and C mode 3, with the accompaniment being based in C mode 2 with a few foreign notes. Example 61 shows a reduction of this section.

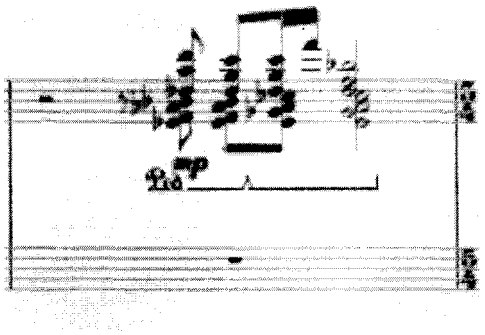
Example 61



For the third presentation the orchestration and the harmonic canvass is again varied. The trumpet melody of the previous presentation is now varied and developed by piccolo and there are now stacked triads providing the harmonic colour. For the first two bars the rhythm section plays a B major triad against the Db triad of the brass. This creates a B Lydian texture, in addition to the C mode 2/3 of the piccolo and the G mode 2 of the melody. Here we are not only combining Messiaen's modes with each other, but also with conventional tonality, as is suggested by him in the *Technique of my musical language* (Messiaen 1944, 68). In the third bar of this presentation the rhythm section plays a C triad over the Bb bass, while the brass play a D minor triad – this gives an overall colour of Bb Lydian here in conjunction with the other modal colours.

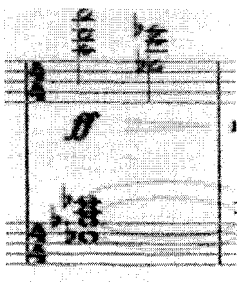
This then flows into a literal orchestration of the first four bars of *Le Banquet Celesté*, giving an obvious nod to the inspiration and source of much of this movement and indeed the whole work. There is also a reference to the *Quartet for the End of Time* in the fourth bar of letter C, where the piano plays the 'chord on the dominant'. This is shown in example 62.

Example 62



Following on from this is a development of that material, putting it through the prism of jazz language. The change from 3/2 to 5/4 (i.e. the dropping of a crotchet) gives the music more momentum at this point. The melody notes at this point are the same, but now rather than having long notes at the start of the bar and shorter notes towards the end (as was at letter C), the pattern is reversed. The melody is then developed, fragmented and rhythmically diminished, increasing the momentum, before landing on the 'Turangalila chord'.

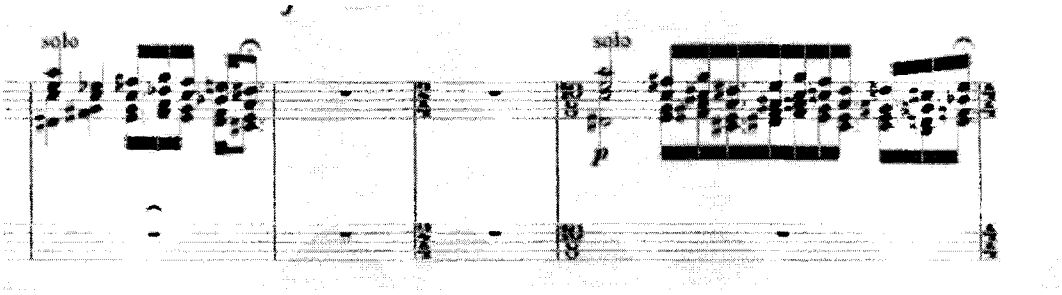
Example 63



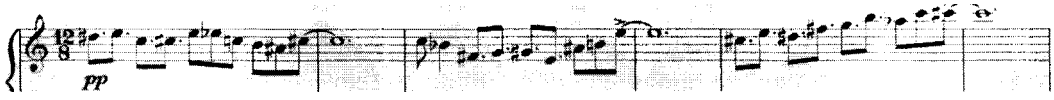
The 'Turangalila chord', shown in example 63, is referred to as such due to its recurrence in Messiaen's *Turangalila Symphony*. This unique and recognisable chord may be seen at rehearsal mark 5 of the fourth movement (Messiaen 1953, 124) and incorporates Messiaen's ideas on appoggiaturas (foreign notes) and their resolutions.

The organ interludes that ensue (example 64) are derived from the opening theme (which itself is derived from the *Le Banquet* theme) and use the same melodic material as the middle section to the first movement (example 65).

Example 64



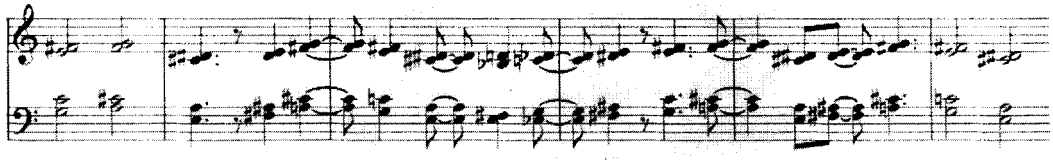
Example 65



The improvised solo that follows continues to explore ideas of finding a harmonic basis in a harmonically non-functional setting. It would be inappropriate to have a solo over a chord progression here, so instead the soloist is left to realise their solo over the same harmonic material used in the rest of the piece. This also provides an opportunity to have the organist interact with the soloist in an environment that both are reasonably familiar with, placing each in a slightly unfamiliar setting while still providing them with tools they know how to use. Midway through the solo the trumpets and trombones enter with background figures. The melodic material here is the same pitch set discussed before that is used in the first movement, but this time those ten pitches are set to an Indian rhythm from the list of decî-tâlas consisting of

eighteen rhythmic values. The melody, shown in example 66, is also harmonised diatonically to mode 2.

Example 66



The solo comes out into the much-delayed fourth presentation of the main theme. This is presented as a strong unison line over static, mode 2 pads in the saxophones and woodwinds, combining the monodic idea of the first presentation with harmonic textures of the third. This climaxes with a tutti statement of the last five notes, before ending as it begun, with an image of nature.

The extremely slow tempo of this piece is one way in which the perception of time is distorted. At such a slow tempo the relationship of one chord to the next is completely dissolved and the long moments on single notes give a sense of endlessness. The rhythm of all the melodic material crosses beats and bar lines too, so even when there is a clear pulse its presence is made more ambiguous through the displacement. The lack of conventional development and forward motion also contribute to the distorted sense of time.

III – hold infinity in the palm of your hand

A movement for solo organ allows the exploration of Messiaen's musical language in a slightly different way; without consideration of elements such as orchestration and instrumentation, though colour and timbre still play a role. It is

written from the perspective of Messiaen's organ music and is heavily influenced by works such as *Le Banquet Celesté, Apparition de l'Eglise Eternelle* and *l'ascension.* Throughout the movement the idea of development is most prominent, with the outcome being achieved through a number of means. Techniques of melodic development, through repetition, fragmentation, sequencing and development by elimination, are employed, as are techniques of harmonic development. Harmonically, things are developed through the use of added notes to create beautifully harsh dissonances, and melodies are repeated with different vertical structures supporting them, giving the melody itself an entirely new colour. Rhythmically the movement is simplistic and does not utilise much of Messiaen's rhythmic innovation. Rhythm is often repeated in the developments as a unifying element and it is often closely tied to the melody.

A common attitude in the application of all concepts of development is that of 'natural development', meaning a development of material that flows naturally with one idea leading logically to the next, appearing as if the music could evolve in no other way. This concept has its roots in Messiaen's idea of 'natural harmony'.

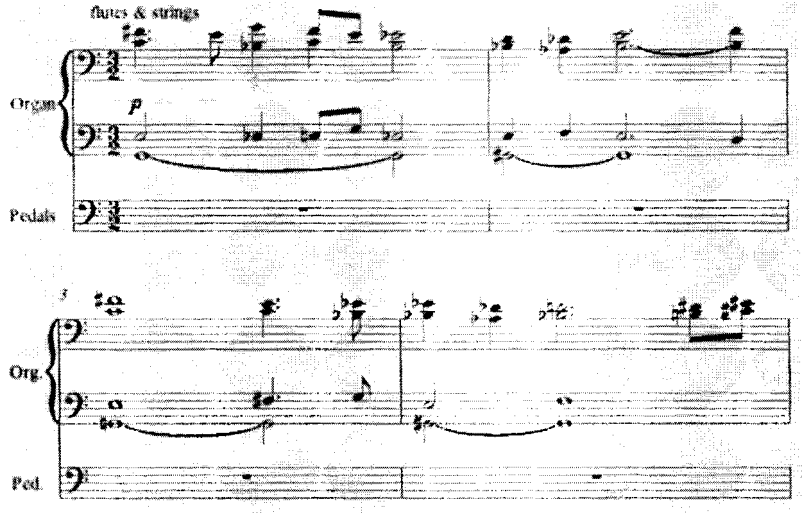
> 'The natural harmony: the true, unique, voluptuously pretty by essence, willed by the melody, issued from it, pre-existent in it, having always been enclosed in it, awaiting manifestation.' (Messiaen 1944, 52)

Structurally this movement is quite simple, taking on the form of: A, development one, A, development two, coda. The same material is used in both developments, but each develops differently with the second building into a dramatic

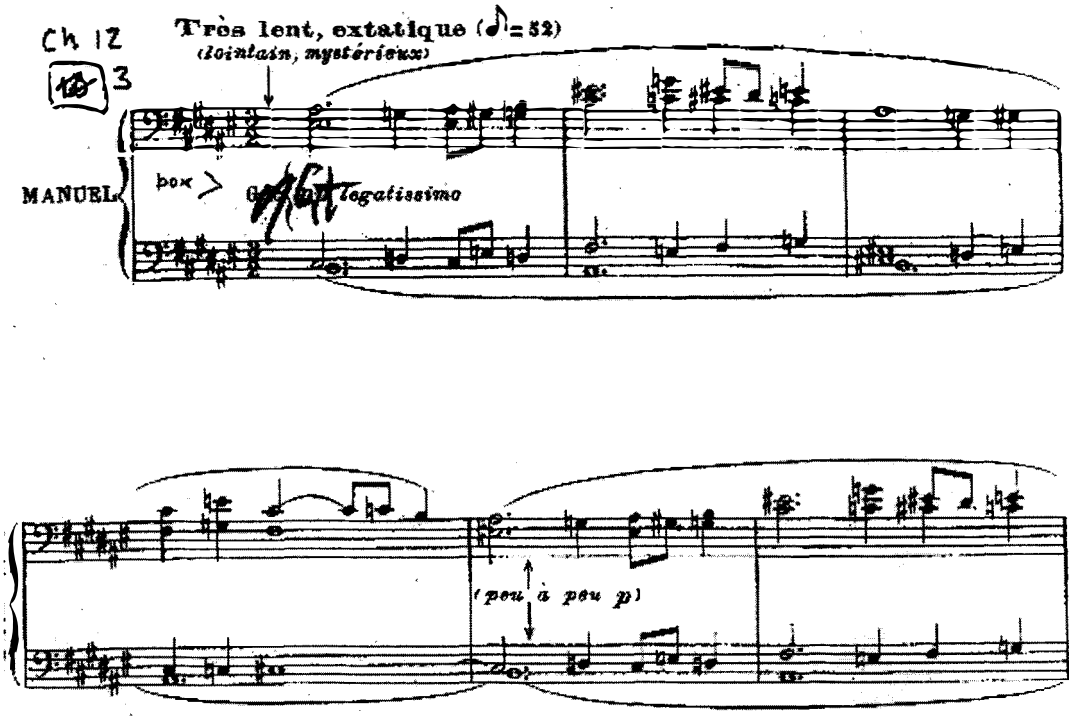
climax. The piece concludes with a short, introspective interpretation of the theme, quietly ending on the same added sharp eleven chord of the opening.

The opening phrase, shown in example 67, is modelled on *Le Banquet Celesté*, shown in example 68, with the rhythm of the first four bars being derived from *Le Banquet* and the underlying melodic material being the same in both; two minor third intervals a semitone apart. This represents an interpretation of the 'Boris motif', which is the first five notes of Mussorgsky's *Boris Godounov* and consists of two minor third intervals a tone apart (Messiaen 1944, 31). Being Messiaen's first published work, it precedes much of his rhythmic exploration, but, at a tempo of quaver = 52, still represents his often weighty treatment of time and meter.

Example 67



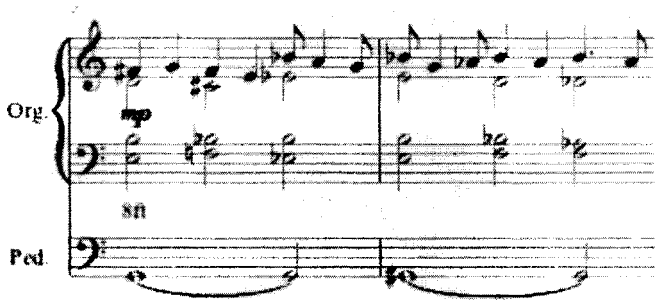
Example 68



Like *Le Banquet*, the movement begins with a four bar antecedent and consequent, which together form the main theme of the movement. The whole theme is true to mode 2, with the mode 3 borrowing of the flat six in the fourth bar, similar to the mode 2/3 melodies of the first movement. Bars three and four have the same harmonic basis as bars one and two, with bar three being a simplified version of bar one, having been developed by elimination.

The first two bars are then repeated but in place of the third bar of the theme a development of the first three notes of the theme (F sharp, E and G) appears (example 69).

Example 69



A simple melody based on those three notes, the first three notes of E minor, is played before they transpose up a minor third, to the first three notes of G minor. This melodic fragment is then subjected to re-ordering according to Messiaen's technique of 'interversion' (Messiaen 1944, 35). The A in this fragment is first altered to an A flat before one of the three notes is 'eliminated'.

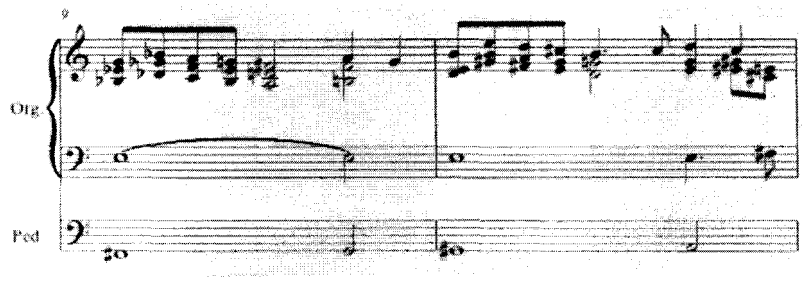
'[Development by elimination] consists of repeating a fragment of the theme, taking away from it successively a part of its notes up to concentration upon itself, reduction to a schematic state, shrunken by strife, by crisis.' (Messiaen 1944, 35)

The harmony here departs from the exclusive use of the modes of limited transposition, infusing jazz harmonic language with the modes. We also see the number of voices expand from four to five, creating a denser, more colourful sound.

The following two bars continue with the three-note motif, forming a sequence that is reinforced by the rhythmic repetition. The melody is harmonised with inverted triads over a chromatically ascending bass line, creating colourful interplay between the two while not operating in any specific mode. The phrase climbs to a suspended A dominant seventh chord where the expected resolution of D to C sharp

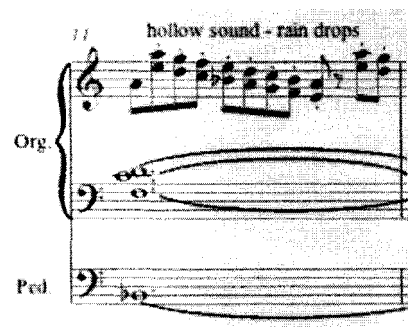
in the melody is sabotaged by the harmonic accompaniment, subverting the conventional resolution.

Example 70



In example 70 the initial upward interval of the first bar is a minor third. In the second bar it is augmented to a perfect fourth. In the following bar it is augmented yet again to a perfect fifth harmonised a fourth above. Here the 'upward interval followed by a descending scale' idea is developed (example 71), with the scale continuing further than before and notes gradually being eliminated until the rhythmically augmented final fragment.

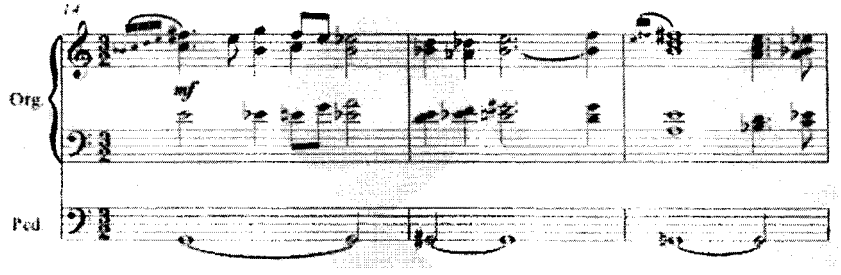
Example 71



The main theme now returns an octave higher but by the second bar we see the harmony changing from the original four-part harmony to a denser, more

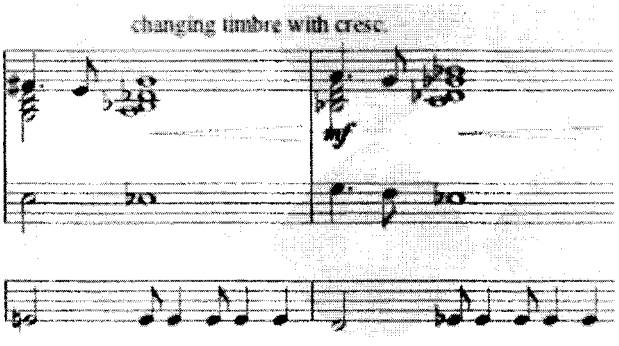
sophisticated five-part, accelerating the development the second time around. Melodically and rhythmically the theme, shown in example 72, is identical to the opening.

Example 72



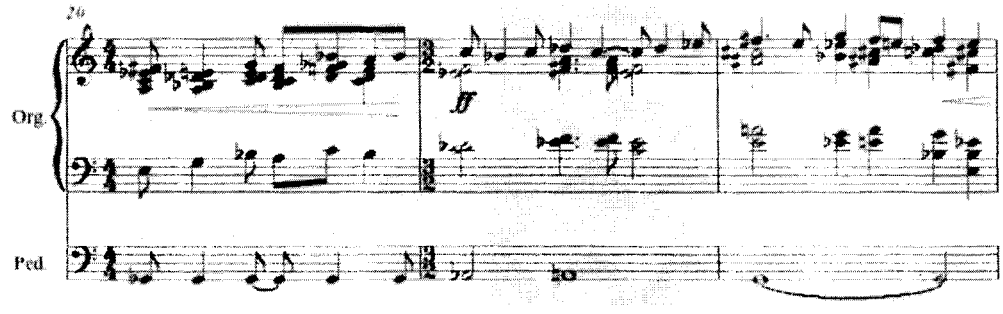
The subsequent development, shown in example 73, begins with the same melodic fragment as before and even modulates up a minor third too. With different harmonies and rhythms the outcome is quite different here.

Example 73



The repeated pedal notes with sustained chords gives the effect of the organ breathing and is a technique used in Messiaen's *Apparition de l'Eglise éternelle*. The next three bars, shown in example 74, are the most intense and dissonant of the movement.

Example 74

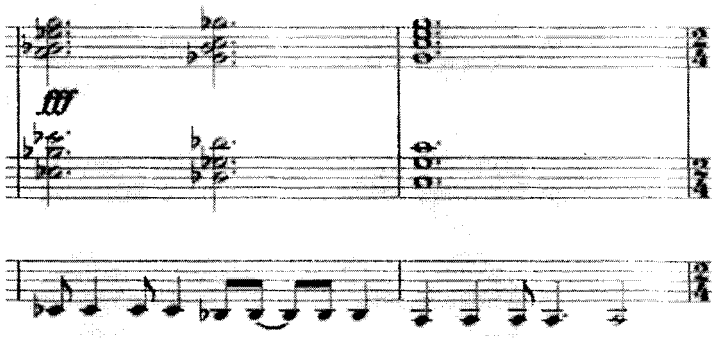


Much of the harmony here is mode 2 based, but there are added 'colour notes' that are foreign to the mode, such as the natural fourth and the flat sixth. These notes are added to increase tension and have no harmonic or modal justification.

'These notes keep a character of intrusion, of supplement: the bee in the flower!' (Messiaen 1944, 47)

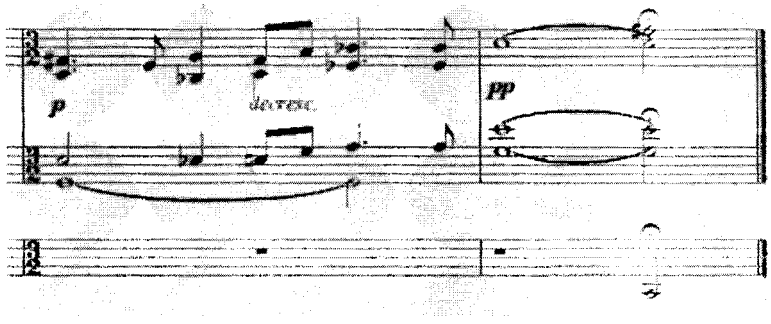
This tension is built up and finally released in a series of three extended chords, shown in example 75. This tritone cadence lands on a sustained forte fortissimo C major triad where again the organ is allowed to 'breath' again with repeated notes in the pedals.

Example 75



A silence follows this climax, providing the listener with a moment to reflect on the monumental sound of the organ, before the final statement, shown in example 76. The phrase begins with the opening theme but quickly develops it upward to land on a final C major triad. The addition of the augmented fourth on top adds an interesting instability that questions the finality of the chord and the soft dynamic is a powerful contrast to the previous climax.

Example 76



IV – eternity in an hour

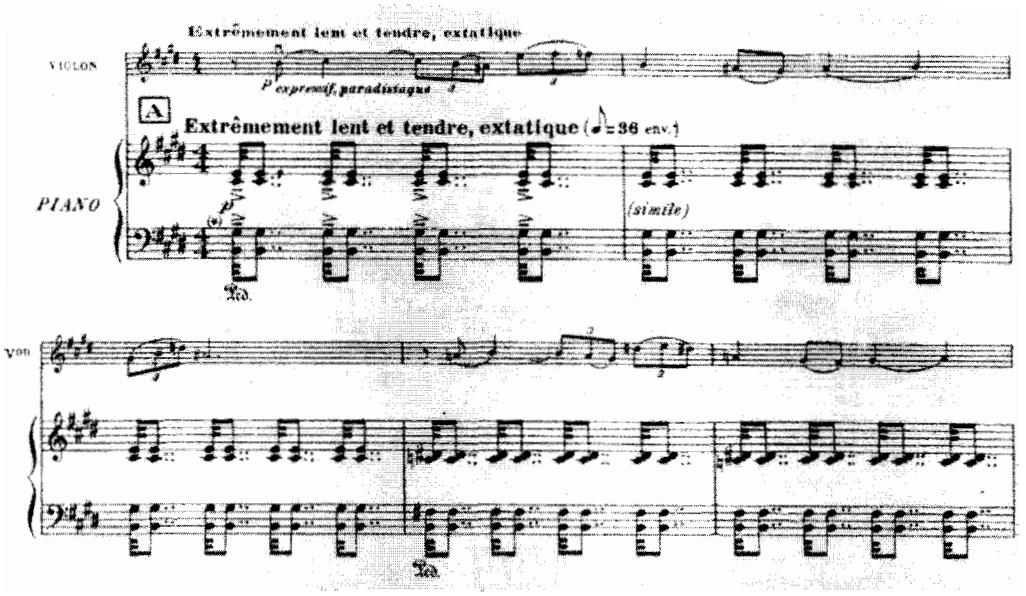
There are several broad concepts that permeate this movement. The first of these is again an exploration of time, its perception and manipulation. Previously discussed techniques of repetition, displacement, poly-meters and augmentation/diminution are

used with newer concepts, such as the idea of 'shadowing' a melody in canon, resulting in the viewing of that melody from three different moments in time. This concept of 'shadowing' is not a literal technique employed by Messiaen, but is one of the composers own devising, though it is rooted in techniques and philosophies that are very much those of Messiaen. The idea of building long melodies from cells of three or four notes is also explored, subjecting them to Messiaen's techniques of melodic construction and rhythmic variation. The construction of complex vertical structures based on modes is also used extensively. Much of the previous modal material has stemmed from Messiaen's mode 2, whereas here modes 1, 3 and 4 are also used extensively. Pedal groups (ostinato's) are also used substantially, providing the foundation for most of the movement.

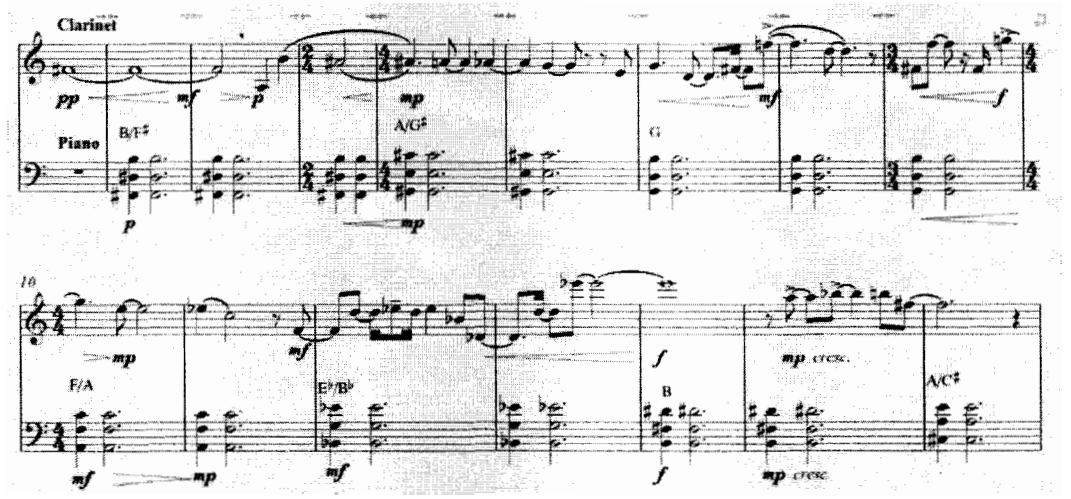
This movement loosely follows a conventional jazz form and the construction of the 'head', which is the main melody, has more in common with jazz than any other movement. The form is as follows: introduction, A, B, interlude, B1, saxophone soli, organ solo (notated), piano solo (improvised), interlude, A and B juxtaposed. The introduction, interlude and organ solo are all based on the same four note melodic cell, with A and the soli being based on a five and four note cell respectively, each derived from the B melody. B is the true 'head' of the movement, whereas A exists as the secondary idea, or a prequel to B. This form can be reduced to introduction, head, sax soli, solos and head out; a typically jazz form.

The movement opens with a solo clarinet sustained note (example 78) that is reminiscent of the fifth and eight movements of the *Quartet for the End of Time*, the eighth of which is shown in example 77. It is joined by piano a bar later with rhythms and chord voicings that are again referential to the quartet.

Example 77



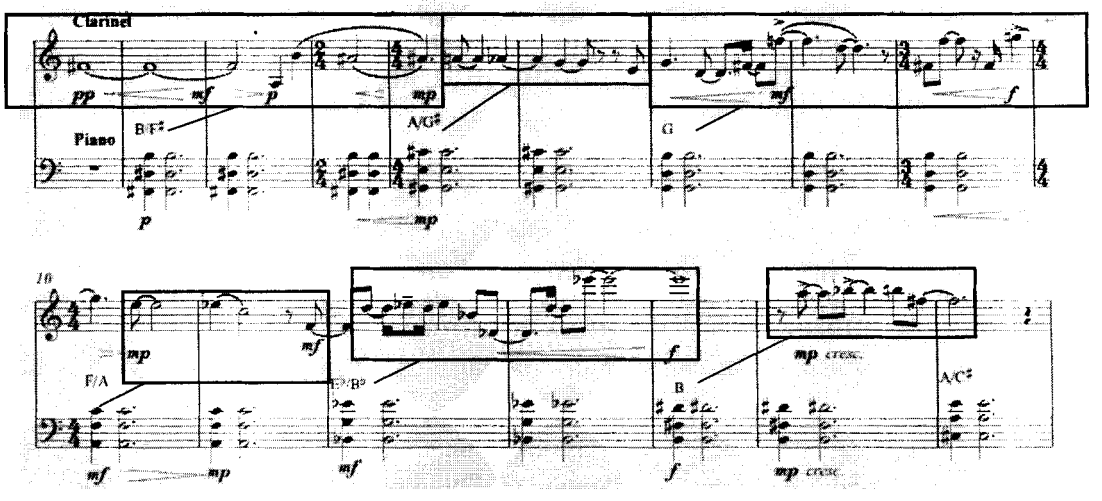
Example 78



As was discussed in Chapter II, mode 1 (the whole-tone scale) is one of Messiaen's least used modes, due in part to Debussy's comprehensive exploration of it. As a result, less obvious ways of approaching the mode were investigated. The chord progression in the opening section of this movement utilises mode 1, though not in a harmonic fashion. It instead derives the roots of the chord progression from a

descending whole-tone scale and builds major triads from each root, with the triads being then presented in different inversions.

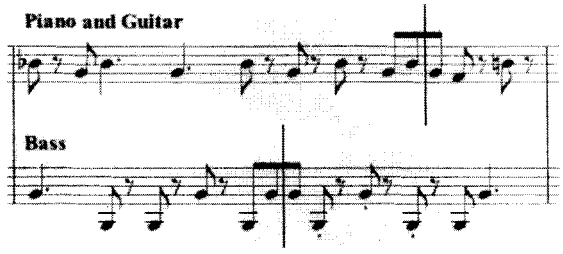
Example 79



The opening melody is built on a four-note melodic cell of B, A#, A and F#, with the same cell forming the basis of the interlude and organ solo that occur later. These notes are transposed down in whole-tones with the chord progression (shown in boxes on example 79) and are manipulated rhythmically with varying register and some fragmentation and repetition of notes.

The introduction concludes on an F dominant chord before establishing the 11/4 ostinato that underpins the rest of the movement. The rhythmic pattern in the guitar and piano is identical to that of the bass, except it is displaced by three beats, confusing any feeling of subdivision within the eleven. The rhythm itself is a non-retrogradable rhythm of the composers own devising and its symmetry may be seen if a line is drawn down the middle of the bass part or between beats nine and nine-and in the guitar part. Extending either side of that line is the pattern 1-2-2-2-1-3.

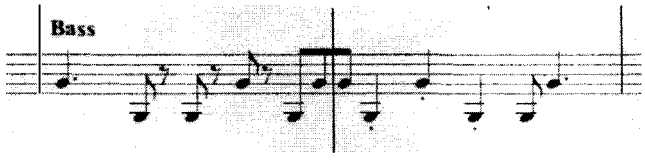
Example 80



The harmonic implication of the juxtaposition of these two parts is ambiguous, as the pattern consists predominantly of repeated B flats (the major seventh) and G's (the sharp five) over a B pedal, with no mention of a third to suggest major or minor tonality. As a result the harmony seems to be both static and non-existent, providing an unstable and latent foundation over which anything can justifiably occur. This, along with the unstable meter of 11/4, adds to the tension and sense of anticipation created.

In the score the bass rhythm is altered to allow easier reading, causing an actual retrograde reading to result in the playing of a different rhythm. This is a practical alteration and does not affect the resulting sound of the part.

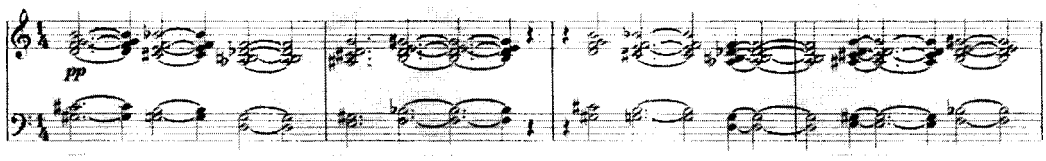
Example 81



The ensemble chords that follow four bars into letter A, shown in example 82, are dense vertical structures that move diatonically with the melody within mode 2. Though they are not the same mode 2 chords Messiaen favoured, they are based on

the same principal of diatonic movement within the mode that he demonstrates in volume one of the *Technique of my musical language* (Messiaen 1944, 59).

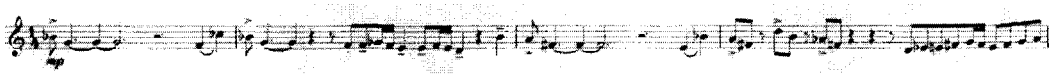
Example 82



For the first two bars the chords are consecutively held for four, three, four, three and seven beats, implying a feeling of seven over the eleven. For the second two bars the chords are held for two, five, five, fives and then four beats, implying an overall feeling of five over the eleven. The repetition of chords sustaining for five beats preceding the chord of four beats 'sling-shots' the music into the next section, as the entry after four beats is felt as premature and unexpected.

The following melody at letter B, shown in example 83, is the main theme and it is based on mode 3, though it has some foreign notes that also suggest mode 2. It consists of a two bar phrase that is then answered down a semitone, creating a musical sentence comprising of an antecedent and a consequent.

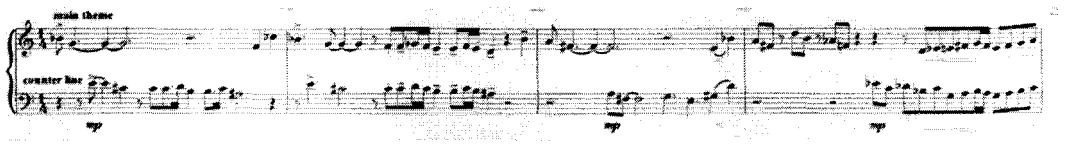
Example 83



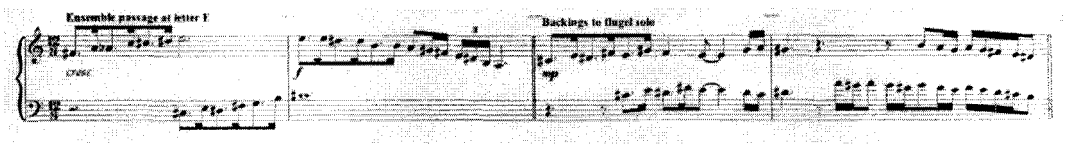
The melody also side steps between different transpositions of the same mode. This is aurally acceptable due to the unstable ambiguity of the harmonic accompaniment. On the repeat of this four bar melody a counter-line is introduced

(example 84) based on mode 2. Both rhythmically and melodically this line refers back to letter E of the first movement, shown in example 85. It also develops the minor third interval, which pervades all melodic material used in the entire work.

Example 84

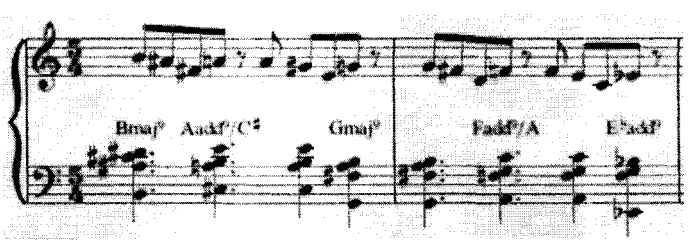


Example 85



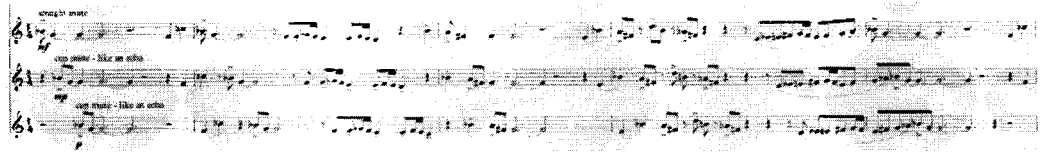
The interlude that follows, shown in example 86, is derived from the same four-note cell developed in the introduction and is subjected to the same systematic transposition going down in tones, though here the rhythm is much simpler, using only quavers. The chords move in whole-tone steps but alternate between root position and first inversion.

Example 86



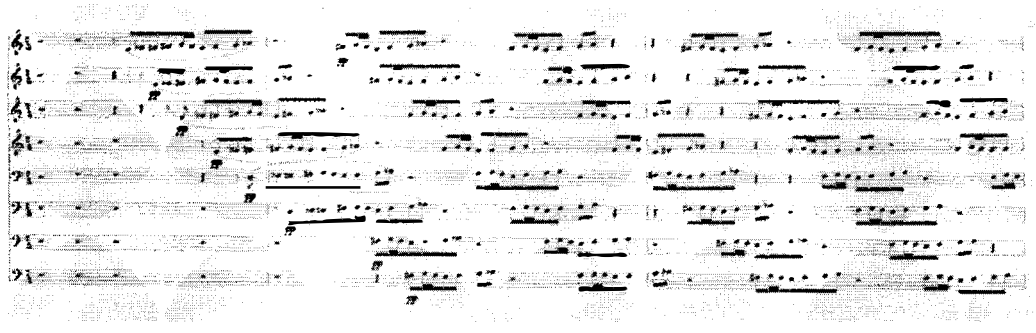
The main theme from letter B is then repeated, but this time both the melody and counter melody are played three times in canon, each a crotchet apart. This is shown in example 87 and creates the effect of an echo, or a musical shadow. The change in dynamics and mutes in the brass reinforce this and cause the first entry to be more prominent than the others. The effect this has on ones perception of time is that in any one moment the listener is actually hearing three moments at once, three beats where we normally here one.

Example 87



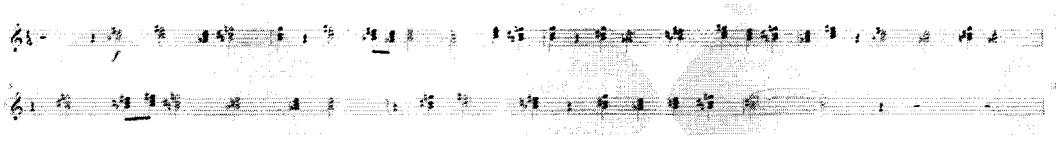
This idea is then taken to its extreme, culminating with the last seven notes of the section being fragmented and repeated in a five-part canon (example 88). This builds on the idea of 'shadowing', but now instead of three simultaneous viewings of the one melody we have five. The effect is as if time was stopped and the last second was put on repeat and examined from five different angles.

Example 88



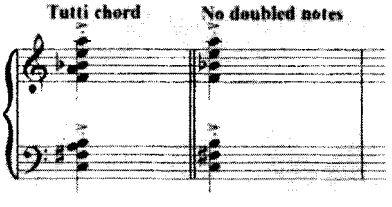
This matrix of repetition accompanies a saxophone soli, shown in example 89, which is in fact also played by flutes, voice and organ. The melody to the soli takes the four notes of the underlying ostinato and repeats them, subjecting them to ten different permutations. The Indian rhythm simharnandana, number thirty-five on the list of 101 deci-talas (Johnson 1975, 194), is then applied to this melodic sequence. The rhythm, consisting of twenty-one different note values, is repeated twice. Note values occasionally fall on rests to allow for breathing.

Example 89



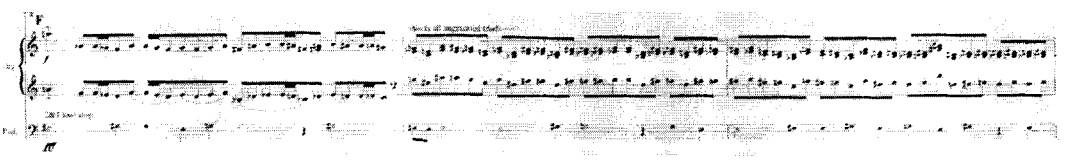
The melody itself is harmonised using augmented triads, covering every note in C mode 3 over any cycle of the four-note sequence. This whole section adheres strictly to C mode 3. The tutti ensemble hits in the next section use this same Indian rhythmic pattern, but augment them to twice the value. The chord itself is Messiaen's chord in fourths, but with an additional fourth added above. Example 90 shows the chord as it is voiced in the score followed by an example with doubled notes deleted for easier analysis.

Example 90



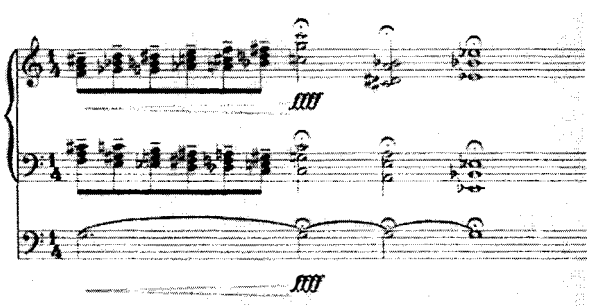
The organ solo occurring beneath these hits (example 91) repeats the melody of the previous soli in the pedals while playing a toccata style accompaniment in the manuals. The accompaniment begins by fragmenting the end of the previous phrase, but soon flows into a different melodic pattern. From the second bar of this section the accompaniment melody uses the four-note cell from the introduction and interlude but harmonises it with augmented triads. The cell periodically steps down by tones.

Example 91



This section climaxes with a rallentando and the organ playing chromatic, augmented triads in contrary motion leading into an intense tritone cadence, shown in example 92.

Example 92

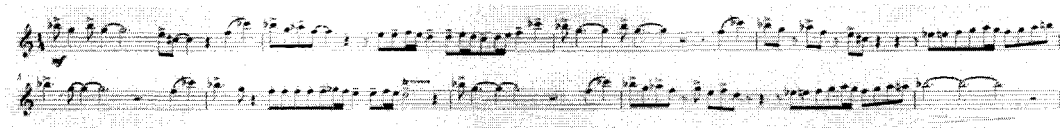


A solo organ interpretation of the introduction follows before leading into a piano solo. The chord progression for the piano solo uses the same progression from the

interlude (and introduction), though now each chord is extended over two bars. The background figures here provide rhythmic interest through the augmentation and diminution of rhythms, while also referring to the bass rhythm, the main melody and the counter-melody. This then flows into an extended repeat of the interlude, while the piano continues to solo. With the segue into the interlude the harmonic rate is sped up, with each chord change lasting a beat or two as opposed to two bars.

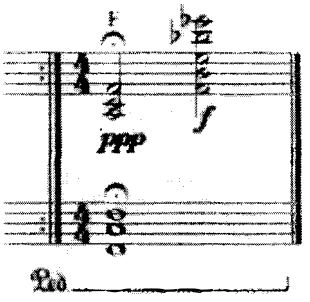
The 'head out' that follows combines two ideas from the beginning of the 11/4 section. The dense chords from letter A are repeated here twice, with the second time being displaced by two beats. Over the top of this the soprano saxophone plays an interpretation of the main theme of letter B with additional birdsong inflections. This is shown in example 93.

Example 93



As the dense chords dissipate the rhythm section maintain the energy with the continuation of their respective ostinatos. On cue the saxophones enter with D, A flat, B and F triads over the B pedal. Each consecutive triad is cued with no relation to the underlying pulse, creating a juxtaposition of time against timelessness that is akin to Messiaen's affinity with ideas of eternity. The saxophones settle on the final triad of F major and are joined on cue by the brass, at which point the time of the rhythm section begins to dissolve and eternity wins over. This sustained chord is then punctuated by a 'chord in fourths' superimposed over the top (example 94), adding a layer of colour and instability to the strength of the triad.

Example 94



This final resting place of F major is a tritone away from the opening chord of the first movement, reducing the function of the entire 42-minute work down to one extended embellishment of a tritone cadence.

Conclusion

In completing this dissertation I have achieved that which I set out to do: I have engaged in a study of the musical language of Olivier Messiaen and I have successfully integrated elements of his language into my own, as can be seen in my suite for pipe organ and jazz orchestra, *Auguries of Innocence*. Drawing on diverse sources, including but not limited to Messiaen's own *Technique of my musical language*, I engaged in an exposition and a critical examination of his musical language. As a result of this study I was able to apply my findings to my composition, *Auguries of Innocence*. This piece integrates elements of Messiaen's musical language into my own compositional style, creating a new unique sound. The placement of a pipe organ in a jazz context is also highly unusual and, when combined with a jazz orientated compositional language, creates distinctive tonal worlds not previously heard in the jazz idiom. In blurring the lines between jazz and

20th Century classical music I hope to have potentially begun paving the way for 21st Century art music.

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Appendix A

– The Organ –

Overview

The modern organ has between one and several hundred sets of pipes, known as ranks, controlled by one or more keyboards, known as manuals. The ranks associated with each manual are designed to be used in combination and compliment one another. On a standard English-style two manual organ the upper keyboard controls the *Swell Organ* while the lower keyboard controls the *Great Organ*. Other divisions that can be found on some instruments are: the *Choir Organ*, the *Positive Organ*, the *Solo Organ*, the *Echo Organ*, the *Antiphonal Organ* and the *Bombard Organ*. The pedal keyboard controls the *Pedal Organ*. Messiaen's organ consisted of threes manuals; these were the Positif, the Recit and the Grand, or the Swell, the Choir and the Great as they are known in English.

While every organ is different, as it is custom built for the specific installation, each of the above listed manuals has certain sets of ranks or sounds associated with it. The combination of which ranks sound at any one time is controlled by *stops*. These block or allow the airflow through the pipes when a key is depressed and are controlled by *stop knobs* that protrude from the front of the organ and can be pushed in or pulled out by the player.

The types of ranks can be classified into five basic categories:

1. Foundation Stops
2. Flute Stops
3. String Stops

4. Hybrid Stops
5. Reed Stops

The first four groups are made up from flue pipes (where air strikes a sharp lip, as in a recorder or whistle) while the last two groups are made up from reed pipes (where air strikes a brass reed). The difference between the groups is discerned from their scaling and tone quality.

Stop types

Foundation Stops

These are constructed from metal flue pipes, often with a high tin content. The ratio of the diameter to the length of the pipe is moderate, producing a tone quality uniquely that of the organ. Common foundation stops include: Principal, Diapason, Dulciana, Prestant, Dolcan, Octave and Montre.

Flute Stops

Flute pipes are made from either open pipes, stopped pipes (closed on one end), half-covered pipes and overblown pipes. The pipes have a relatively wide diameter, producing a strong fundamental with little harmonic development. The high placement of the mouth (where the air strikes the lip of the pipe) produces a rounder, duller tone associated with flute sounds. Common open flute stops are: Hohlflöte, Clarabella, Melodia, Nachthorn, Flûte Conique and Blockflöte. Stopped flutes include Gedeckt, Bourdon, Quintatön, Stopped Diapason and Flûte d'Amour. Half-covered

flutes include: The Rohrflöte, Koppelflöte and Chimney Flute. The Harmonic Flute is an overblown rank.

String Stops

These stops are made from pipes that have a narrower diameter than foundation or flute stops, producing a tone rich in upper harmonics (the narrower a pipe, the richer the harmonic spectrum). String stops include: Violone, Gamba, Viola Pomposa, Æoline, Voixe Celeste and Salicional.

Hybrid Stops

These stops have tone qualities that are somewhere between a foundation and flute tone, or a flute and string tone. They include Gemshorn, Erzähler, Phonon, Diapason, Tibia and Geigenprinzipal.

Reed Stops

Some reed stops are intended to imitate orchestral instruments, while others are uniquely organ timbres. In reed pipes the tongue vibrates against a *shallot* (the hard part that the reed rests against) and produces a column of air in a *resonator* (the pipe), whose purpose it is to reinforce certain partials and without which there won't be any fundamental. Note frequency is determined by the length, size and stiffness of the reed, as well as the size of the air column created in the resonator. Reeds with thick tongues produce a smoother and more fundamental tone, whereas thinner tongues produce a tone with richer harmonics. The relative width and length of a resonator also contribute to the tone of the stop. Common reeds include: Orchestral

Oboe, Trompette, Tuba Major, Schalmei, Krummhorn, Clarinet, Regal, French Horn and Cor Anglais.

Mutation Stops

Mutation stops are stops that play pitches that correspond to different upper partials of the fundamental, thereby altering the timbre of the note. Common mutation stops are the Nazard, which produces a G when a C is played, and the Terz (or Tierce), which produces an E when a C is played.

Mixtures

Mixtures are stops that cause multiple ranks of pipes to sounds simultaneously. The additional notes are usually tonics or fifths in various octaves (although thirds, sevenths and ninths may also be used) and they reinforce the sound of the fundamental adding a brilliance and clarity to the tone. The octaves of the additional ranks is not consistent throughout the range, so as different notes are played the overall sound can vary.

They're not usually used on their own, but in combination with other stops, though Messiaen was fond of breaking this convention.

Registration

The number following the name of a stop indicates the octave that the pitch will sound within. For example, an 8' pipe will sound at concert pitch, a 16' pipe (twice the length) will sound an octave lower and a 4' pipe will sound an octave higher.

Vibrato

Vibrato is achieved by **Tremulants**, which are devices that disturb the airflow giving an undulating effect. There are two methods for achieving this; the air supply to the pipes is shaken by the mechanical compressing and releasing of a sort bellows in the air supply system, or a fan is placed over the pipes, effecting the sound as it comes out.

Other Controls

The Swell Box is a large box that encases all of the pipes associated with one of the organs (usually the swell). One or two of the walls of the box are made up of movable shutters controlled by a foot pedal (*a shoe*). As the pedal is depressed the shutters open, allowing more of the sound to come out. The pipes within a swell box are said to be *under expression*. Other organs, such as the choir, may also be encased in a 'swell box' of their own.

The Crescendo is an effect controlled by a pedal similar to that of the swell box. As the pedal is depressed it mechanically adds the stops from softest to loudest to the sound. When the shoe is fully depressed all the stops are usually activated.

Couplers are switches that connect the stops associated with one manual to a different manual. One example is the 'swell-to-great' coupler, where stops drawn on the swell organ will sound when the great organ's keys are depressed. There is also such a thing as an *intra-manual* coupler, such as a swell-to-swell 4'. This means that for each note played, the note one octave higher will also sound (swell-to-swell 16 would double an octave lower). Stops that achieve this are usually simply labelled *octave*, *sub octave* and *unison off* (which turns off that actual pitch being depressed).

Combinations are mechanical devices that simultaneously draw a specific group of stops, couplers or effects that have been preset by the performer. They are controlled by buttons located below each manual (*pistons*) or by foot buttons located above the pedals (*toe studs*).

Reversibles are pistons or toe studs that act as an on/off switch for a coupler, a special stop, *Master Swell* to *Swell Shoe*, or a sforzando device.

Organ Design

The possibilities of any particular organ may depend on the size, installation, age and builder. The size of an organ is determined by the number of ranks it has, with larger organs typically having many more keyboards, stops and options than smaller ones.

The builder of an organ will create an instrument that caters to the needs of the customer. A church organ will be designed to perform hymns, preludes and other sacred repertoire and not necessarily concert music. Despite this fact, some of the best concert organs are installed in larger churches.

Different organ builders have varied ideas when it comes to what comprises good organ tone and design. This results in stops with the same name sounding different on organs created by different builders. This is also influenced by the fact that each organ building company has its own (often patented) method for controlling the internal workings of the organ, which again has an effect on the tone.

Augurics of Innocence: I - REVISED 21/10/06

to seethe world in a grain of sand

Johannes Luebbers

♩ = 60

Flute: softly repeat: "it is always dangerous to speak of oneself"

Flute: softly repeat: "it is always dangerous to speak of oneself"

Flute: softly repeat: "it is always dangerous to speak of oneself"

Oboe: softly repeat: "it is always dangerous to speak of oneself"

...rinet in Bb: softly repeat: "it is always dangerous to speak of oneself"

...rinet in Bb: softly repeat: "it is always dangerous to speak of oneself"

...ss Clarinet in Bb: softly repeat: "it is always dangerous to speak of oneself"

Bassoon: softly repeat: "it is always dangerous to speak of oneself"

Alto 1: softly repeat: "it is always dangerous to speak of oneself"

Alto 2: softly repeat: "it is always dangerous to speak of oneself"

Tenor 1: softly repeat: "it is always dangerous to speak of oneself"

Tenor 2: softly repeat: "it is always dangerous to speak of oneself"

Bari. Sax.: softly repeat: "it is always dangerous to speak of oneself"

Horn in F: softly repeat: "it is always dangerous to speak of oneself"

Trumpet 1: softly repeat: "it is always dangerous to speak of oneself"

Trumpet 2: softly repeat: "it is always dangerous to speak of oneself"

Trumpet 3: softly repeat: "it is always dangerous to speak of oneself"

Trumpet 4: softly repeat: "it is always dangerous to speak of oneself"

...ombone 1: softly repeat: "it is always dangerous to speak of oneself"

...ombone 2: softly repeat: "it is always dangerous to speak of oneself"

...ombone 3: softly repeat: "it is always dangerous to speak of oneself"

...ombone 4: softly repeat: "it is always dangerous to speak of oneself"

Guitar: softly repeat: "it is always dangerous to speak of oneself"

Organ Cue

Piano: G *ppp very smooth and subtle crescendo*

...ouble Bass: softly repeat: "it is always dangerous to speak of oneself" pizzicato

Drums: softly repeat: "it is always dangerous to speak of oneself"

cymbal scratching sounds

ppp

Percussion: out of tune scraping, gravel sheets

pp

Monologue

continence monologue here

mf

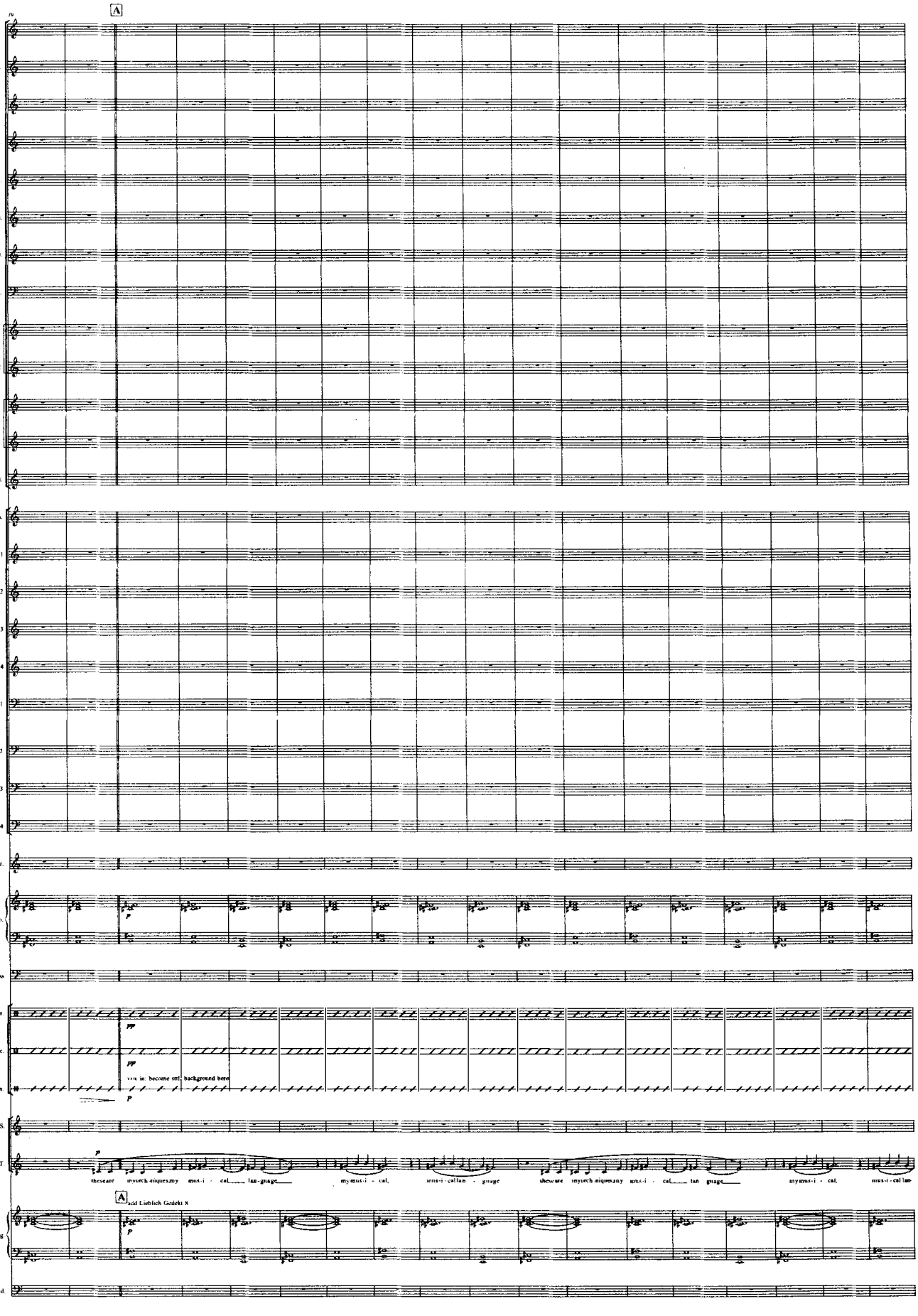
Soprano

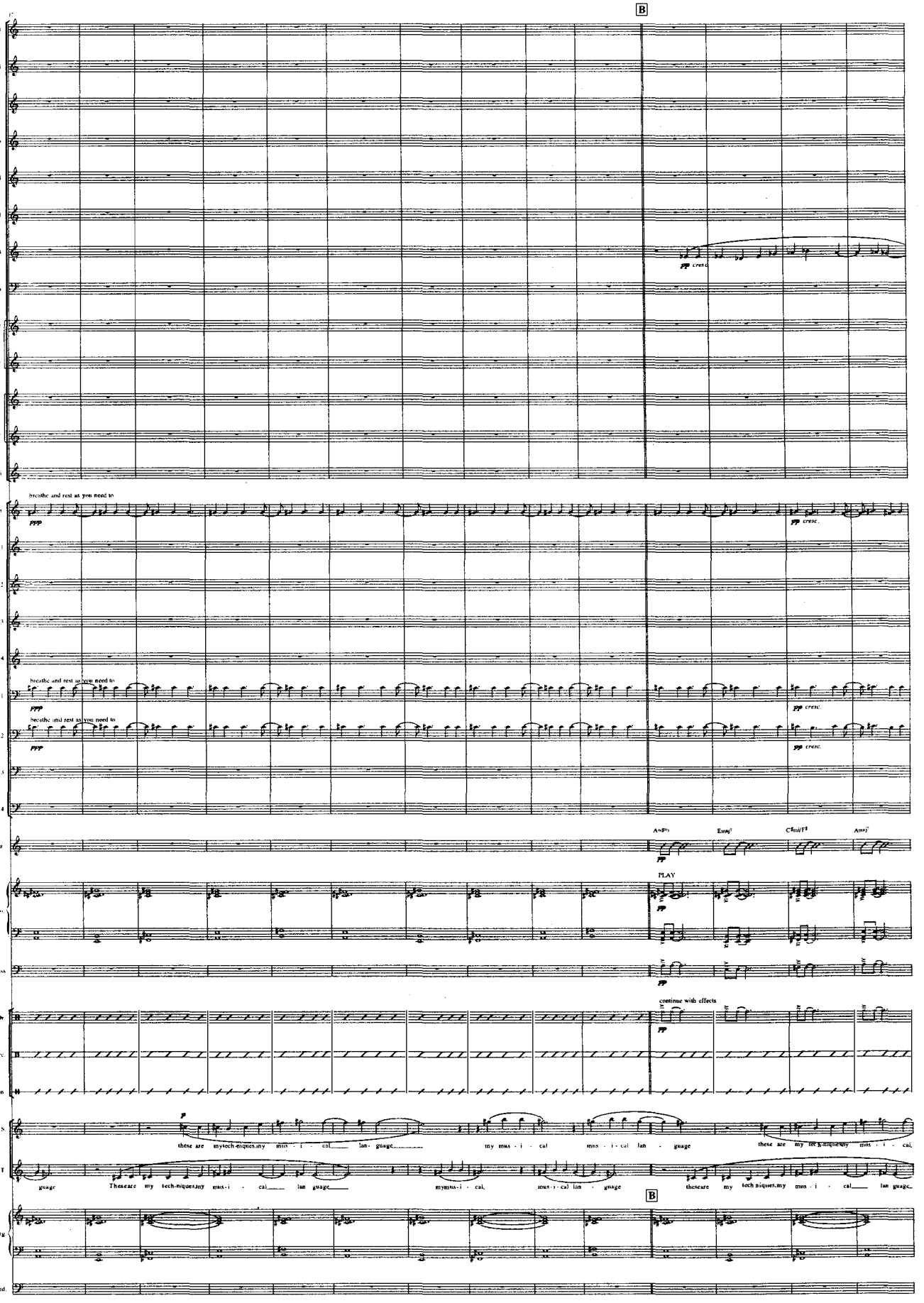
Tenor

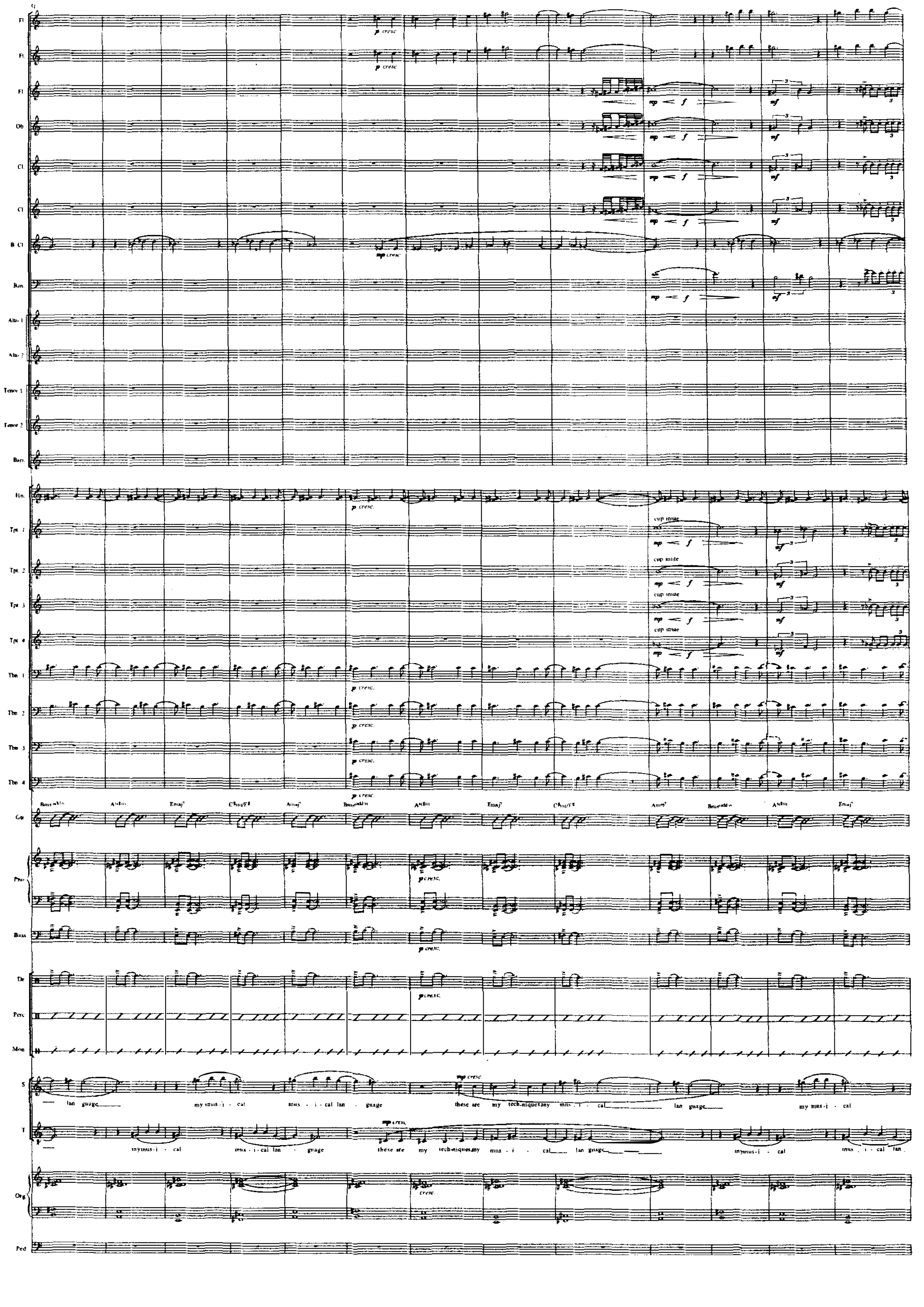
S: unda maris fl, salicornia fl.

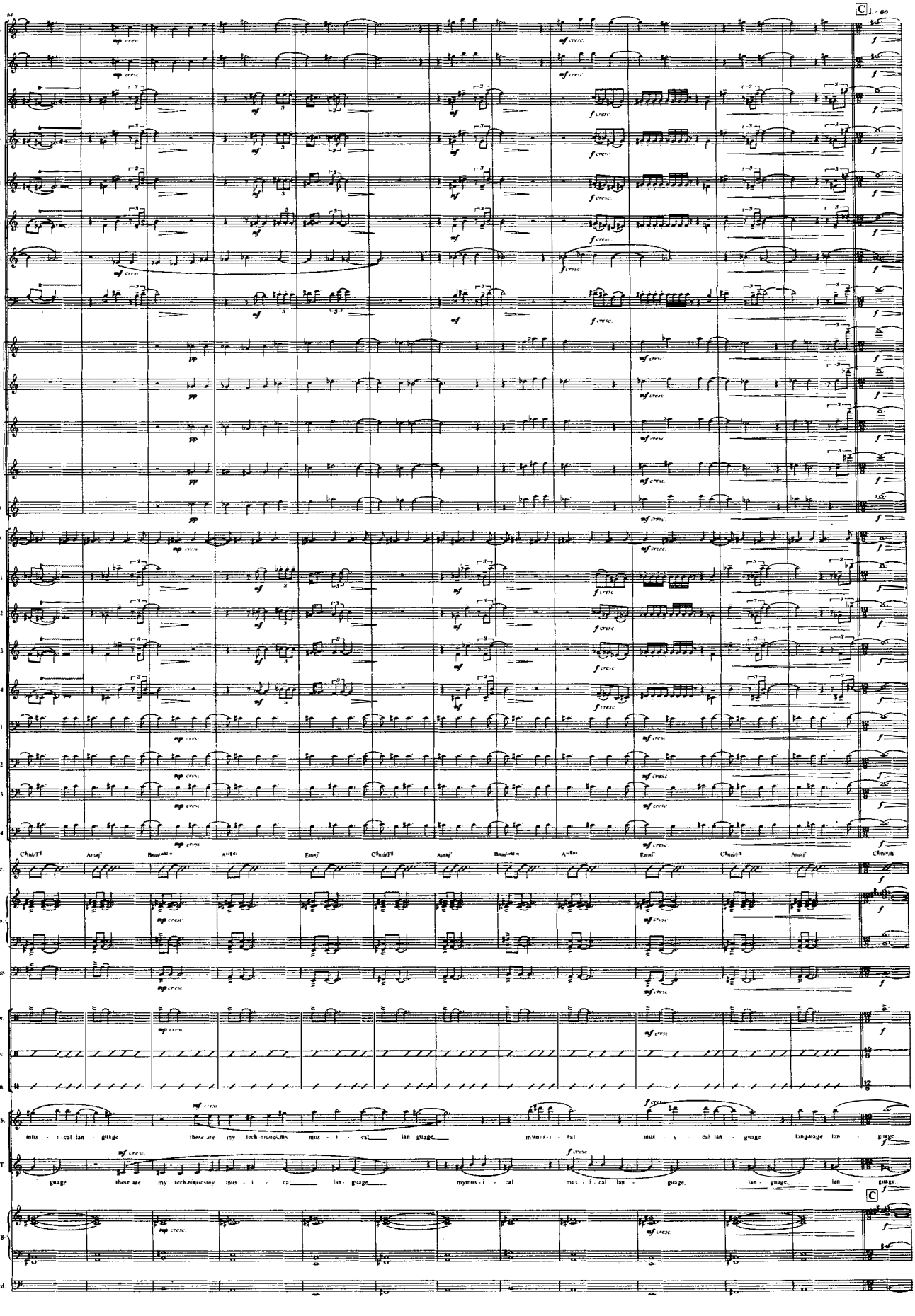
Organ: S *ppp very smooth and subtle crescendo*

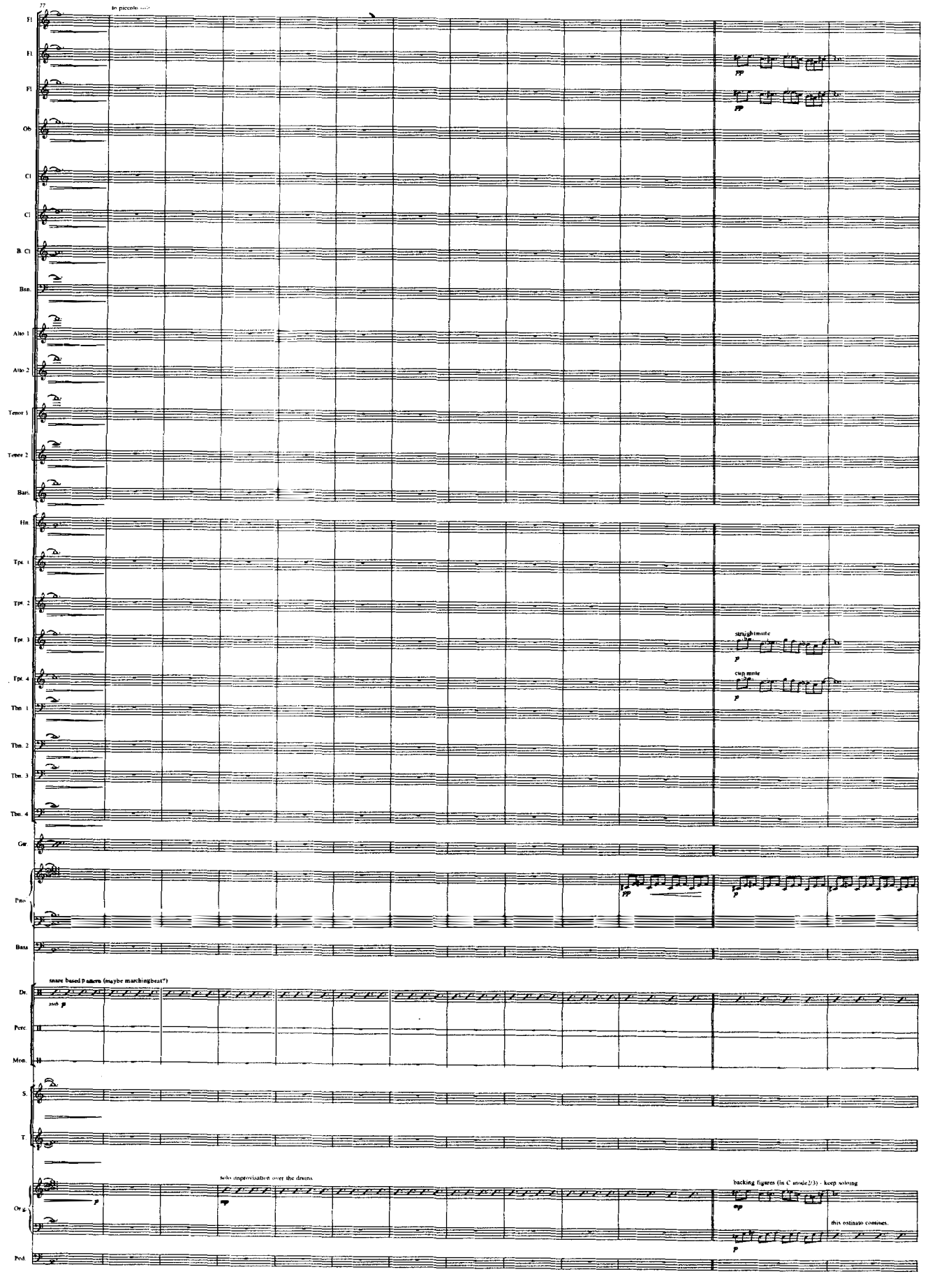
Pedals

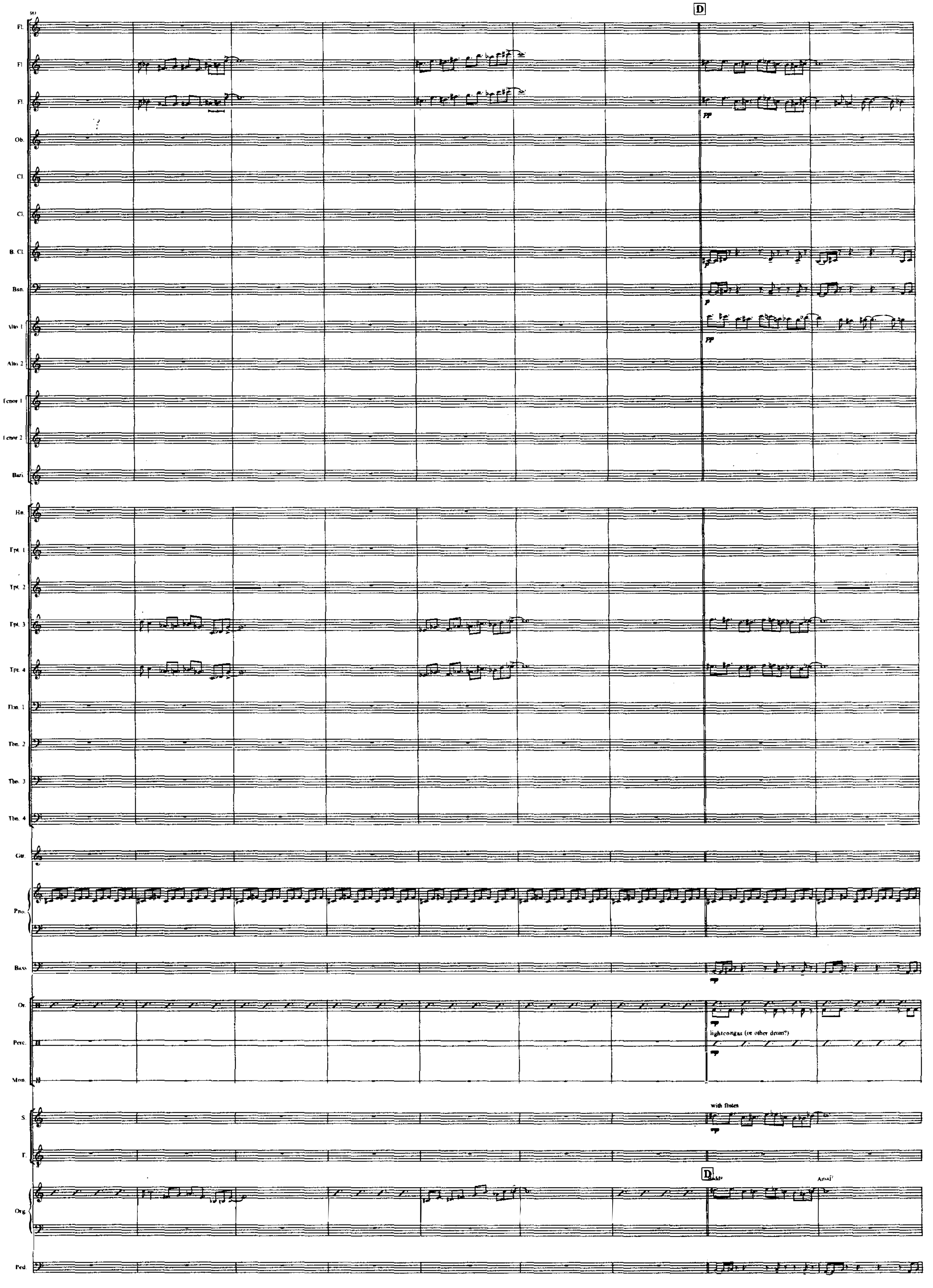

A
Fl.
Fl.
Fl.
Ob.
Cl.
Cl.
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mrm.
S.
T.
Org.
Ped.
theseare mysech-niques,my mus-i - cal lan-guage mysmus-i - cal, sous-i-callan - guage theseare mysech-niques,my mus-i - cal lan guage mysmus-i - cal, mus-i-cal lan
A
add Liebich Gedekt 8

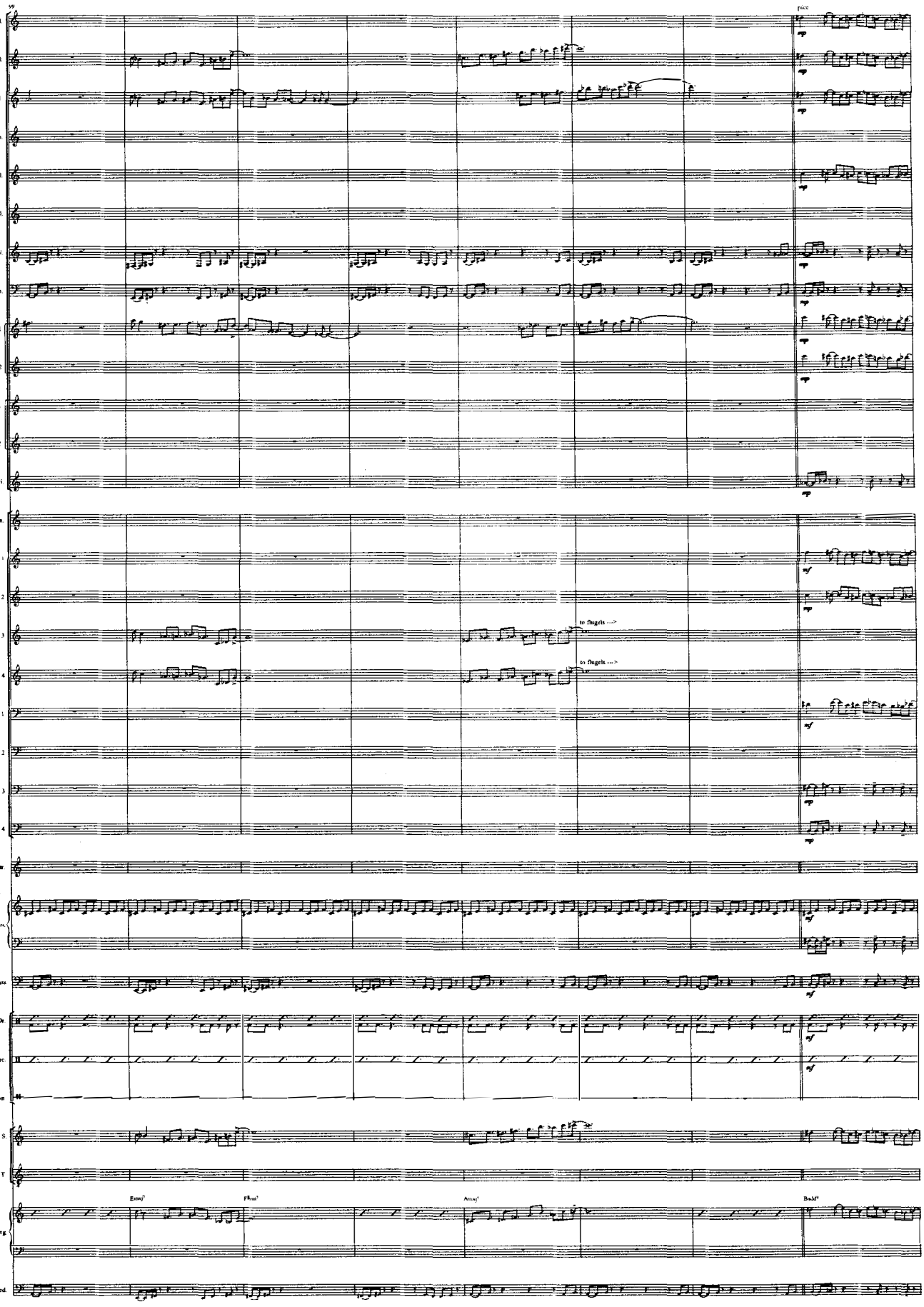

B
Fl
Fl
Fl
Ob
Cl
Cl
B Cl
Bsn
Alto 1
Alto 2
Tenor 1
Tenor 2
Bass
pp cresc.
breathe and rest as you need to
Hn
Tpt 1
Tpt 2
Tpt 3
Tpt 4
Tbn 1
Tbn 2
Tbn 3
Tbn 4
Gtr
Pno.
Bass
Dr
Perc
Marn
S.
T
Org.
Ped.
PLAY
continue with effects
these are mytech-niques,my mus - i - cal lan- guage
my mus - i - cal mus - i - cal lan - guage
these are my tech-niques,my mus - i - cal
guage
These are my tech-niques,my mus-i - cal lan guage
mymus-i - cal
sous-i-cal lan - guage
these are my tech niques,my mus - i - cal lan guage

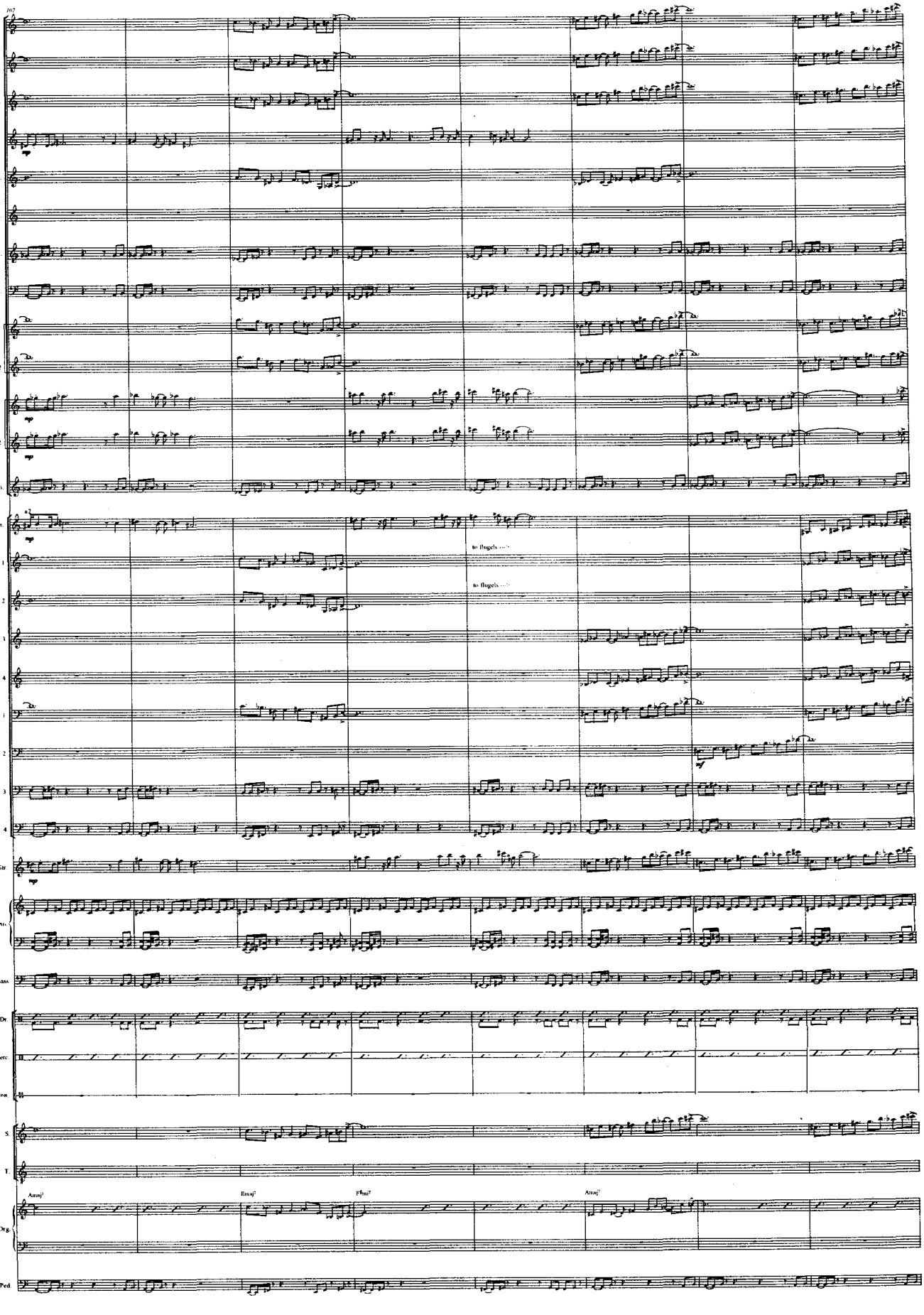

Fl
Fl
Fl
Ob
Cl
Cl
B Cl
Bsn
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari
Hn
Tpt 1
Tpt 2
Tpt 3
Tpt 4
Tbn 1
Tbn 2
Tbn 3
Tbn 4
Gtr
Pno
Bass
Dr
Perc
Mon
S
T
Org
Ped
p cresc.
mp cresc.
cup mute
lan guage my mus-i-cal mus-i-cal lan-guage these are my tech-niques,my mus-i-cal lan guage my mus-i-cal
my mus-i-cal mus-i-cal lan-guage these are my tech-niques,my mus-i-cal lan guage my mus-i-cal mus-i-cal lan

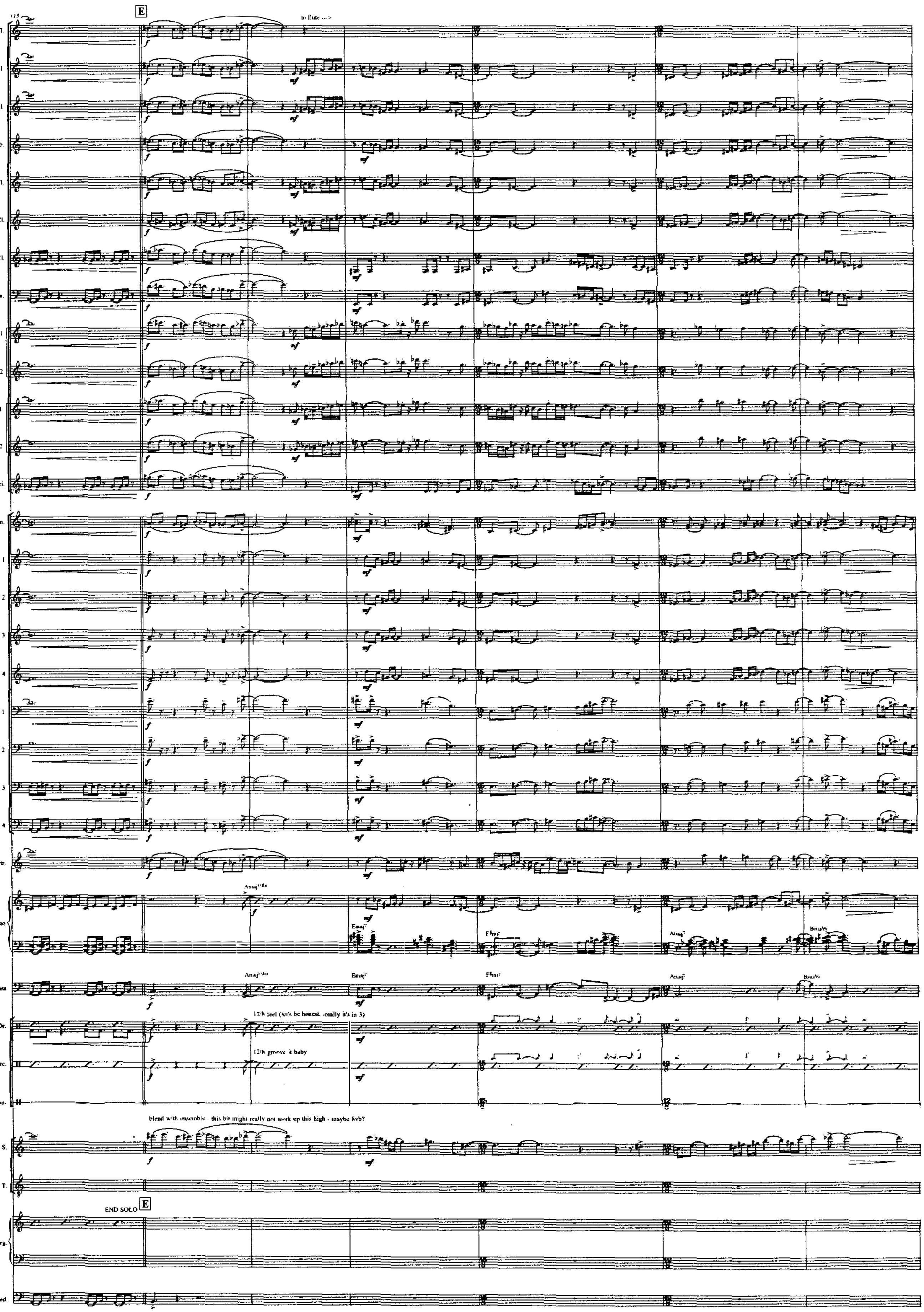

C
♩ = 80
Fl.
Fl.
Fl.
Ob.
Cl.
Cl.
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Piano
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.
mp cresc.
mf cresc.
f cresc.
f
pp
mus - i - cal lan - guage these are my tech-niques,my mus - i - cal lan guage
mymus-i - cal mus - i - cal lan - guage lang-uage lan - guage
guage these are my tech-niquesmy mus - i - cal lan - guage
mymus - i - cal mus - i - cal lan - guage. lan - guage lan guage

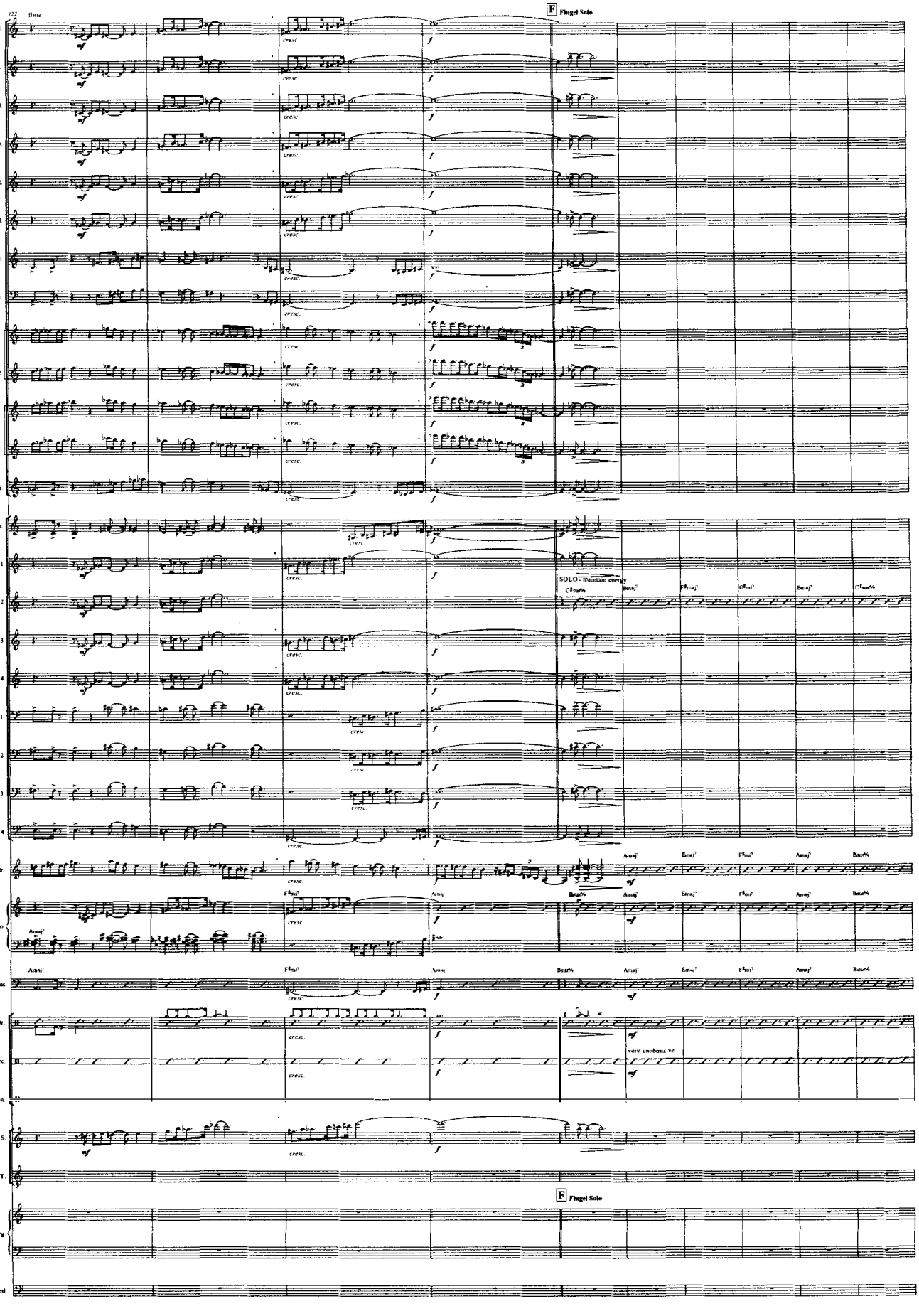

77
to piccolo
Fl
Fl
Fl
Ob
Cl
Cl
B. Cl
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr
Pno
Bass
Dr.
Perc
Mon.
S.
T
Org.
Ped.
straight mute
cup mute
snare based Pattern (maybe marchingbeat?)
solo improvisation over the drums
backing figures (in C minor?/3) - keep solving
this ostinato continues.

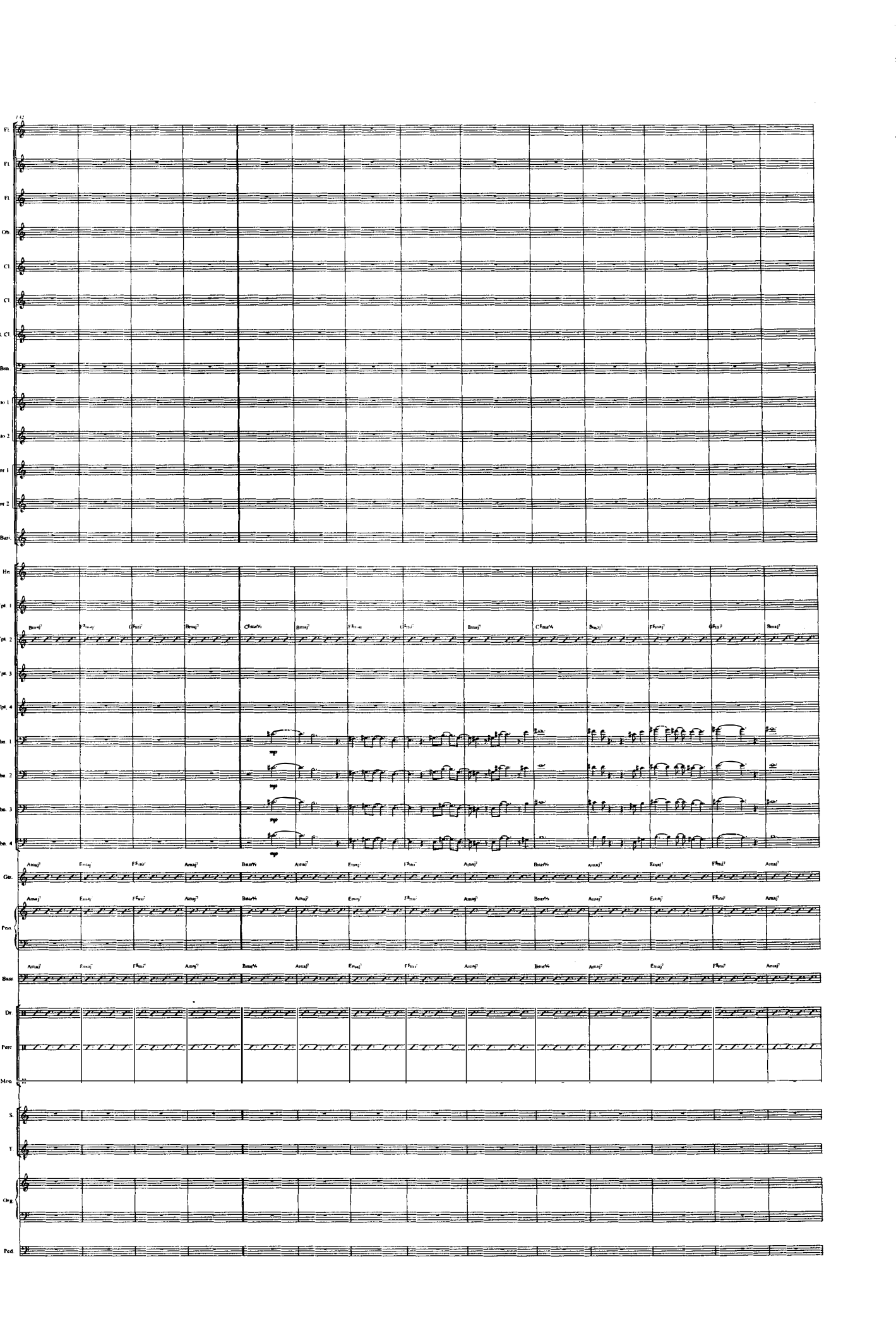

D
Fl.
Fl.
Fl.
Ob.
Cl.
Cl.
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Perc.
light congas (or other drum?)
with flutes
S.
T.
Org.
Ped.
pp
p
mp

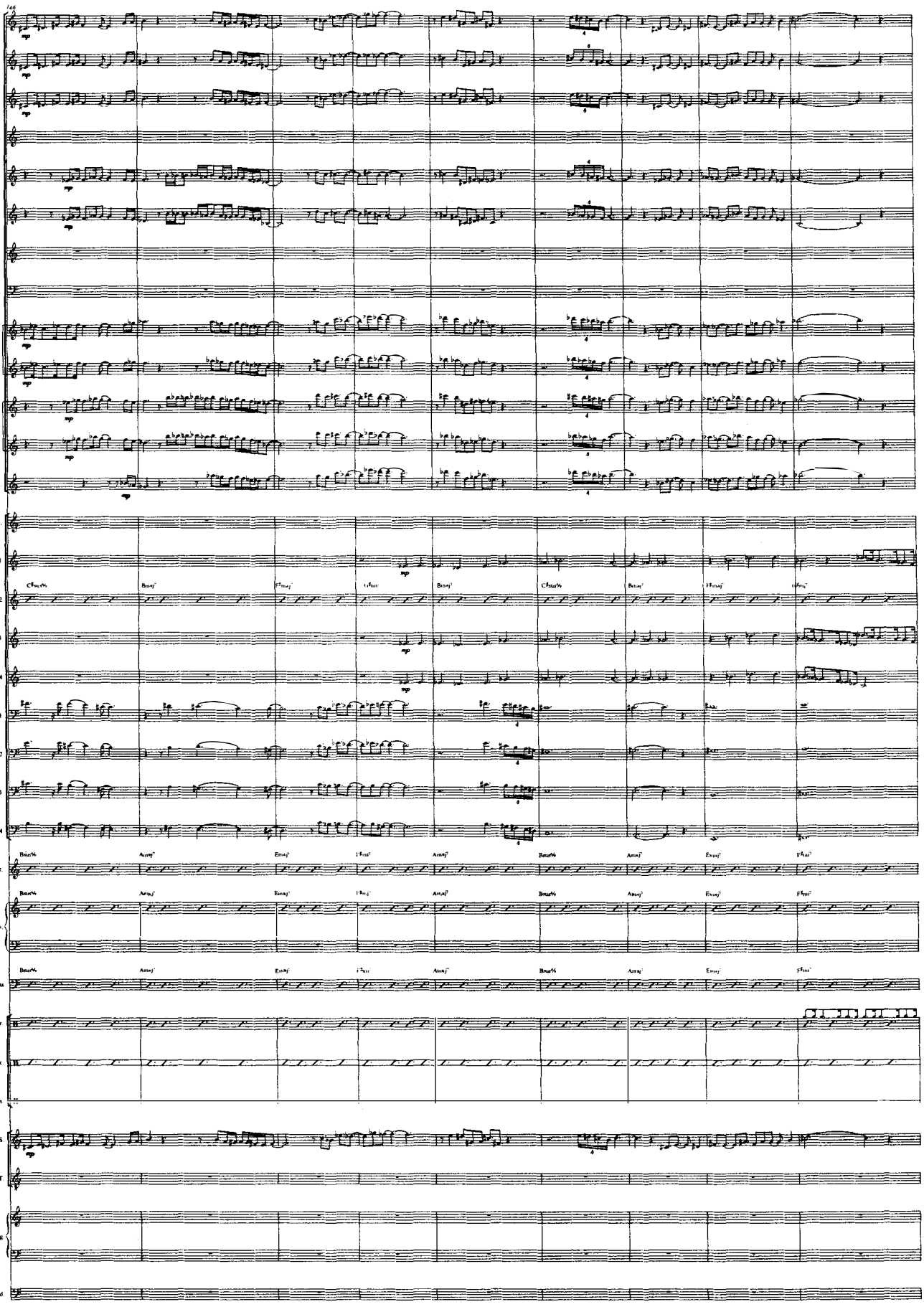

99
piece
Fl.
Fl.
Fl.
Ob.
Cl.
Cl.
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
to flugels --->
to flugels --->
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Perc.
Bass
Dr.
Perc.
Mim.
S.
T.
Org.
Ped.
Emaj7
Fmaj7
Amaj7
Bmaj7

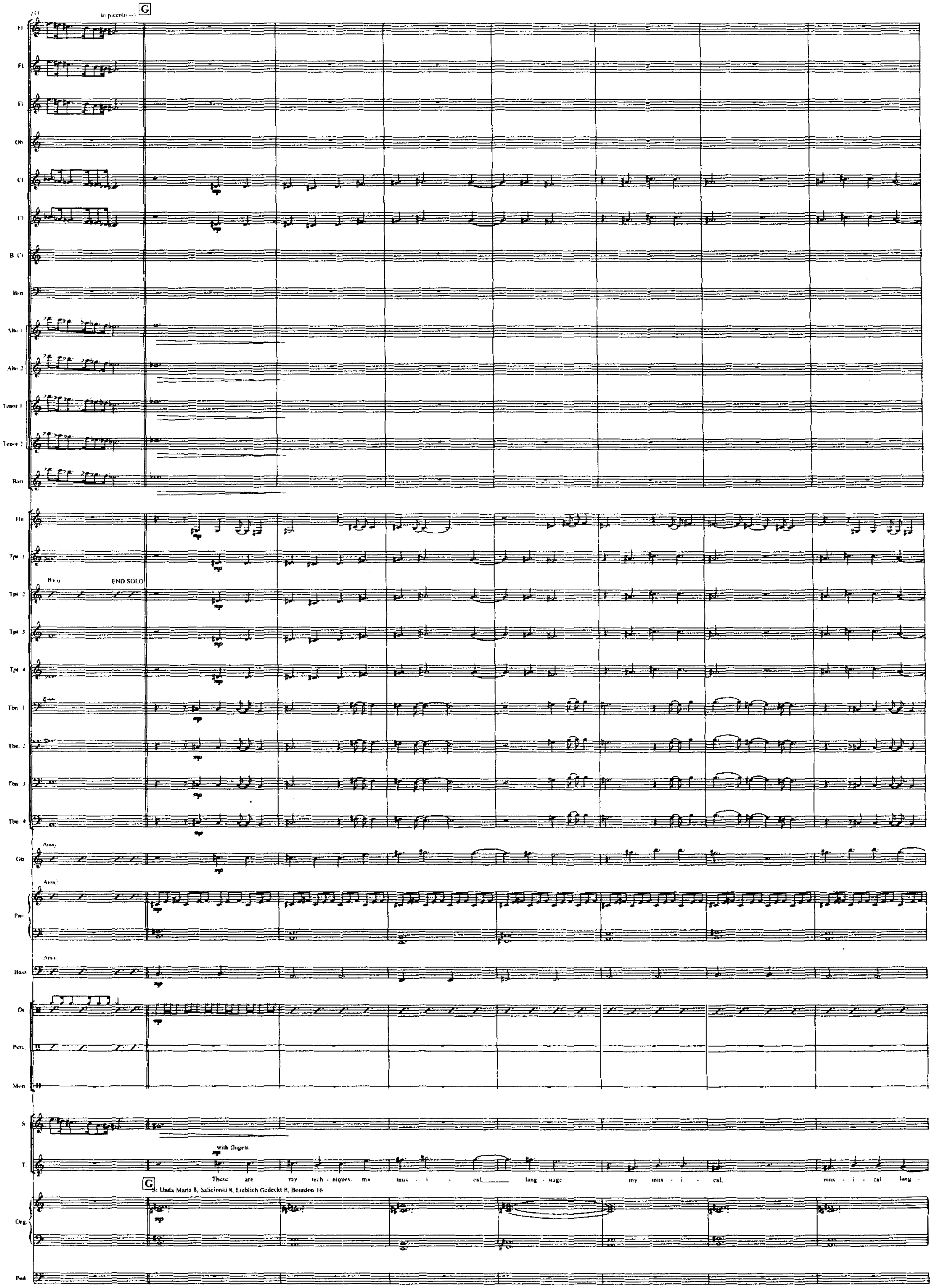

107
Fl.
Fl.
Fl.
Ob.
Cl.
Cl.
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Bass
Dr.
Perc.
Mrm.
S.
T.
Org.
Ped.
to flugels
to flugels
Amaj7
Emaj7
F#m7
Amaj7


115
E
to flute --->
Fl.
Fl.
Fl.
Ob.
Cl.
Cl.
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.
12/8 feel (let's be honest, -really it's in 3)
12/8 groove it baby
blend with ensemble - this bit might really not work up this high - maybe 8vb?
END SOLO
E

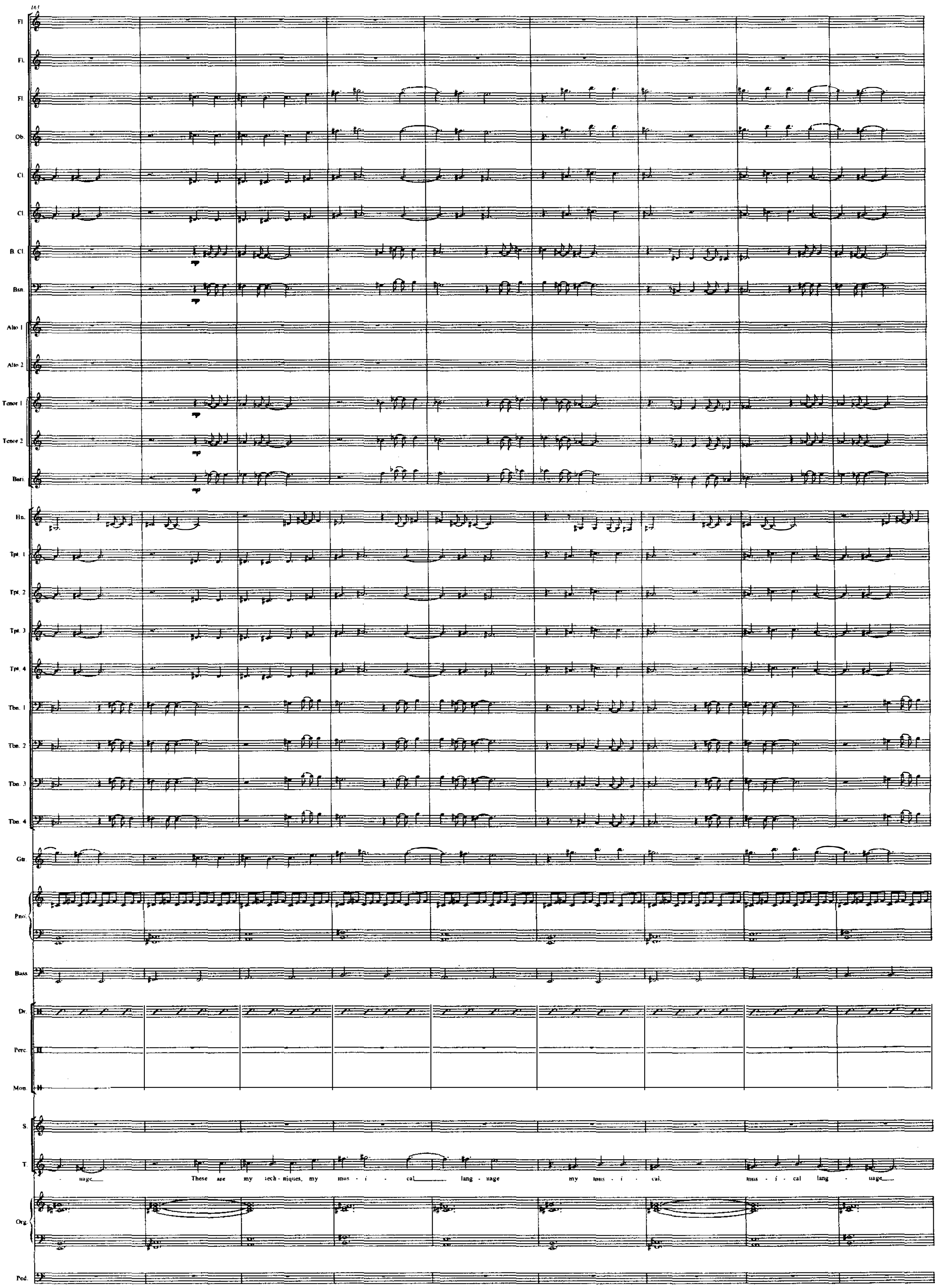

F Flugel Solo
SOLO - Maintain energy
very unobtrusive
F Flugel Solo

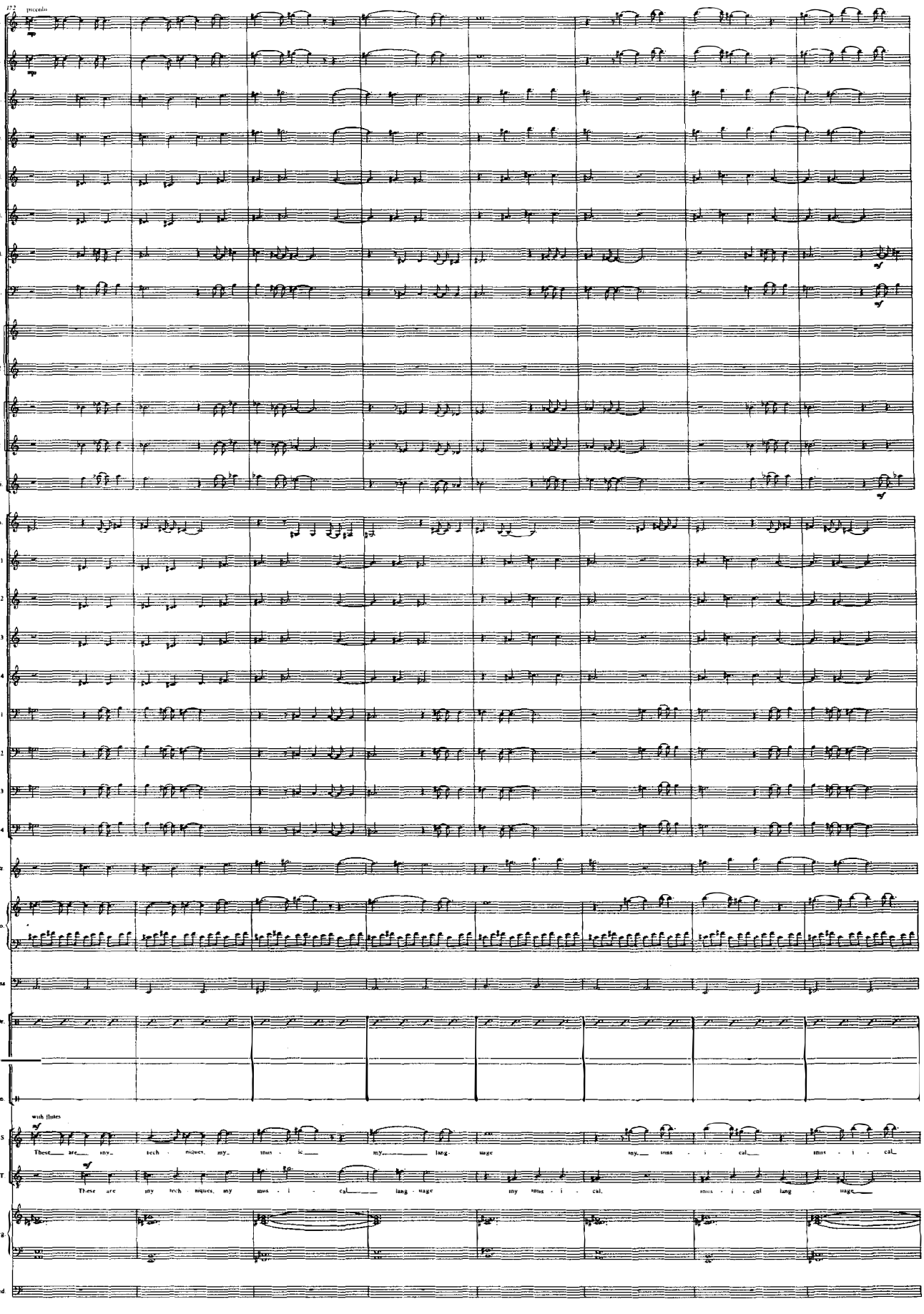


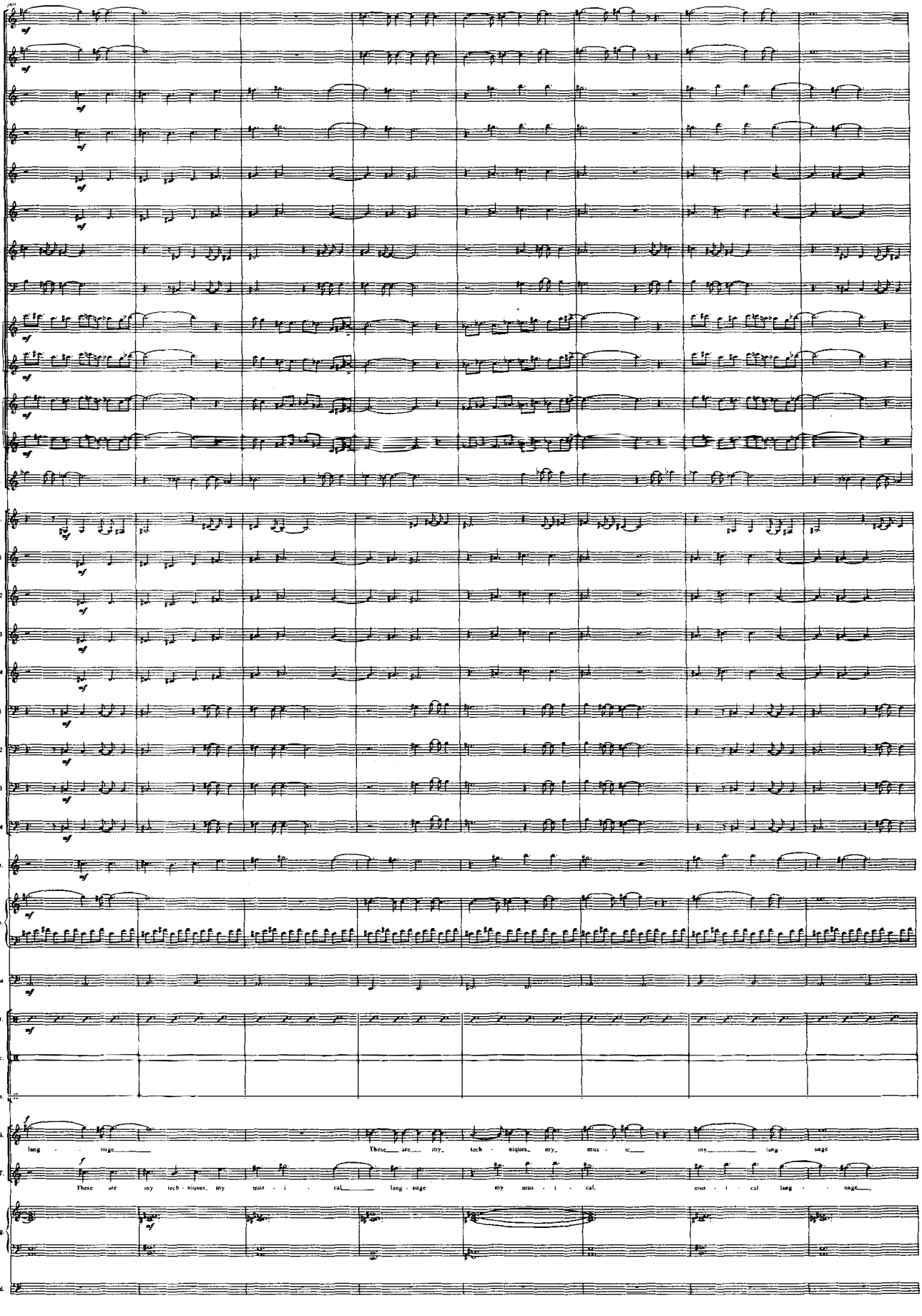

Fl.
Fl.
Fl.
Ob.
Cl.
Cl.
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.

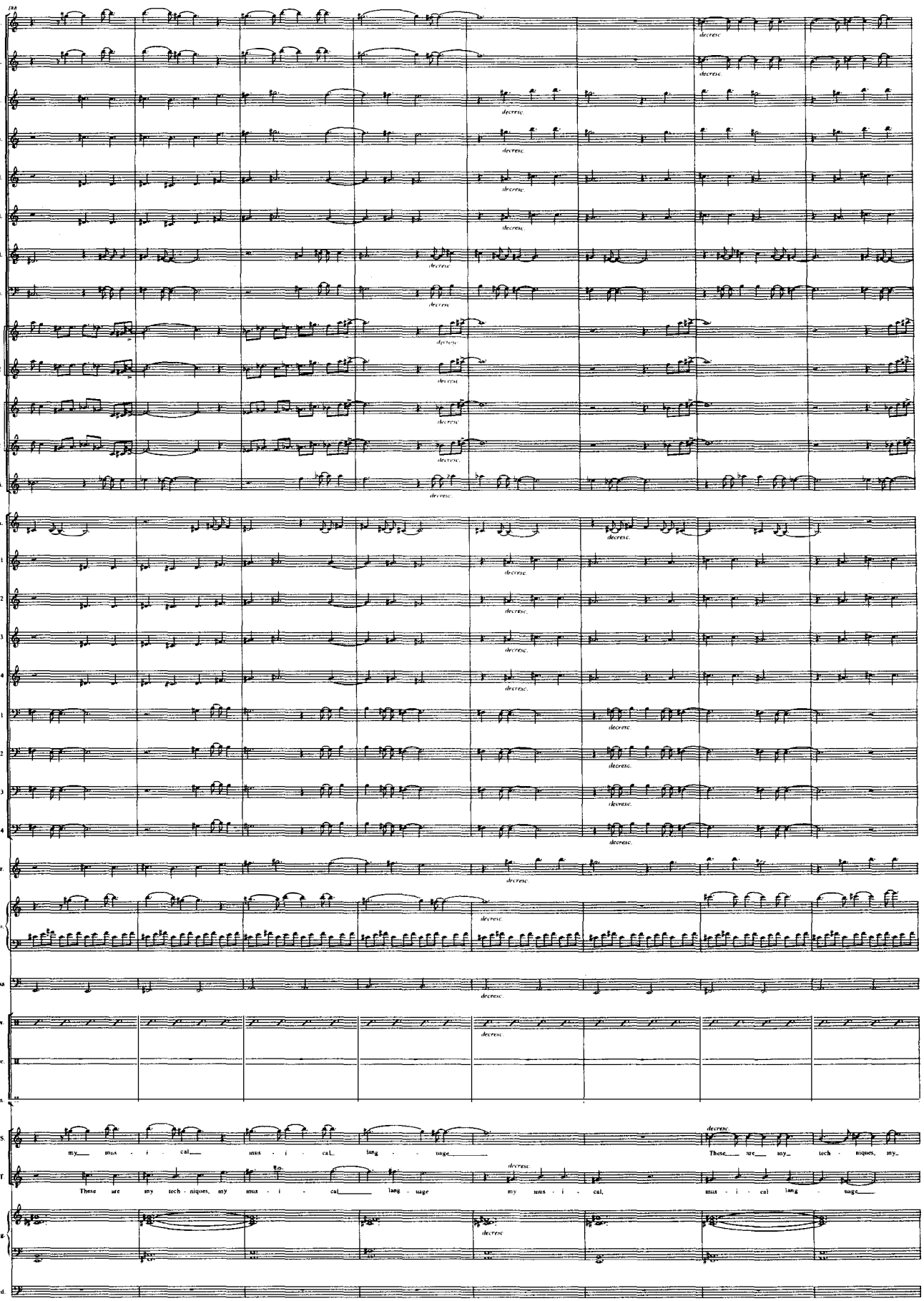


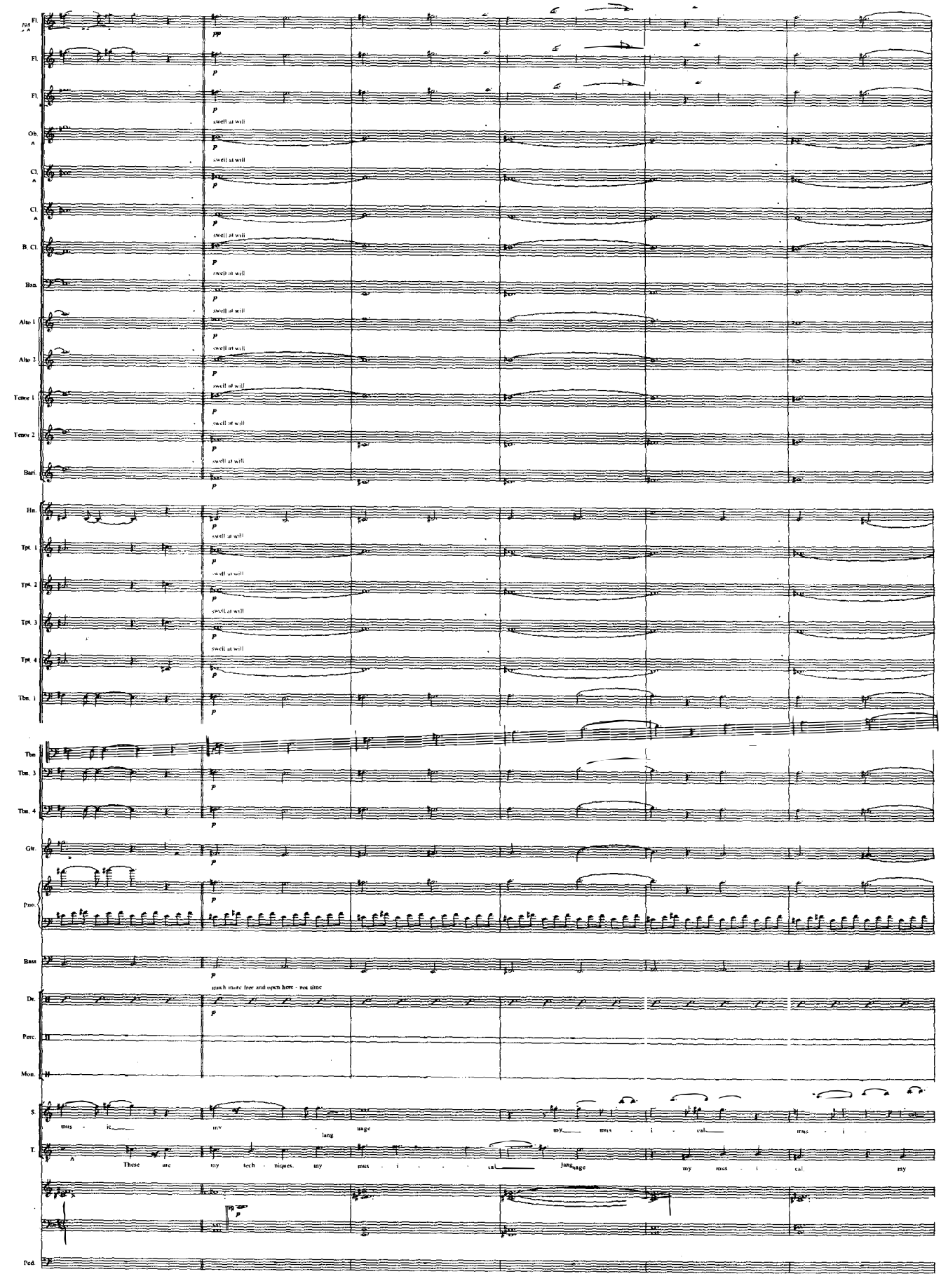
153
to piccolo
G
Fl
Fl
Fl
Ob
Cl
Cl
B Cl
Bsn
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari
Hn
Tpt 1
Tpt 2
END SOLO
Tpt 3
Tpt 4
Tbn 1
Tbn 2
Tbn 3
Tbn 4
Gtr
Pno
Bass
Dr
Perc
Mon
S
T
with flugels
These are my tech - niques, my mus - i - cal lang - uage my mus - i - cal, mus - i - cal lang -
G
S: Unda Maris 8, Salicional 8, Lieblich Gedeckt 8, Bourdon 16
Org.
Ped

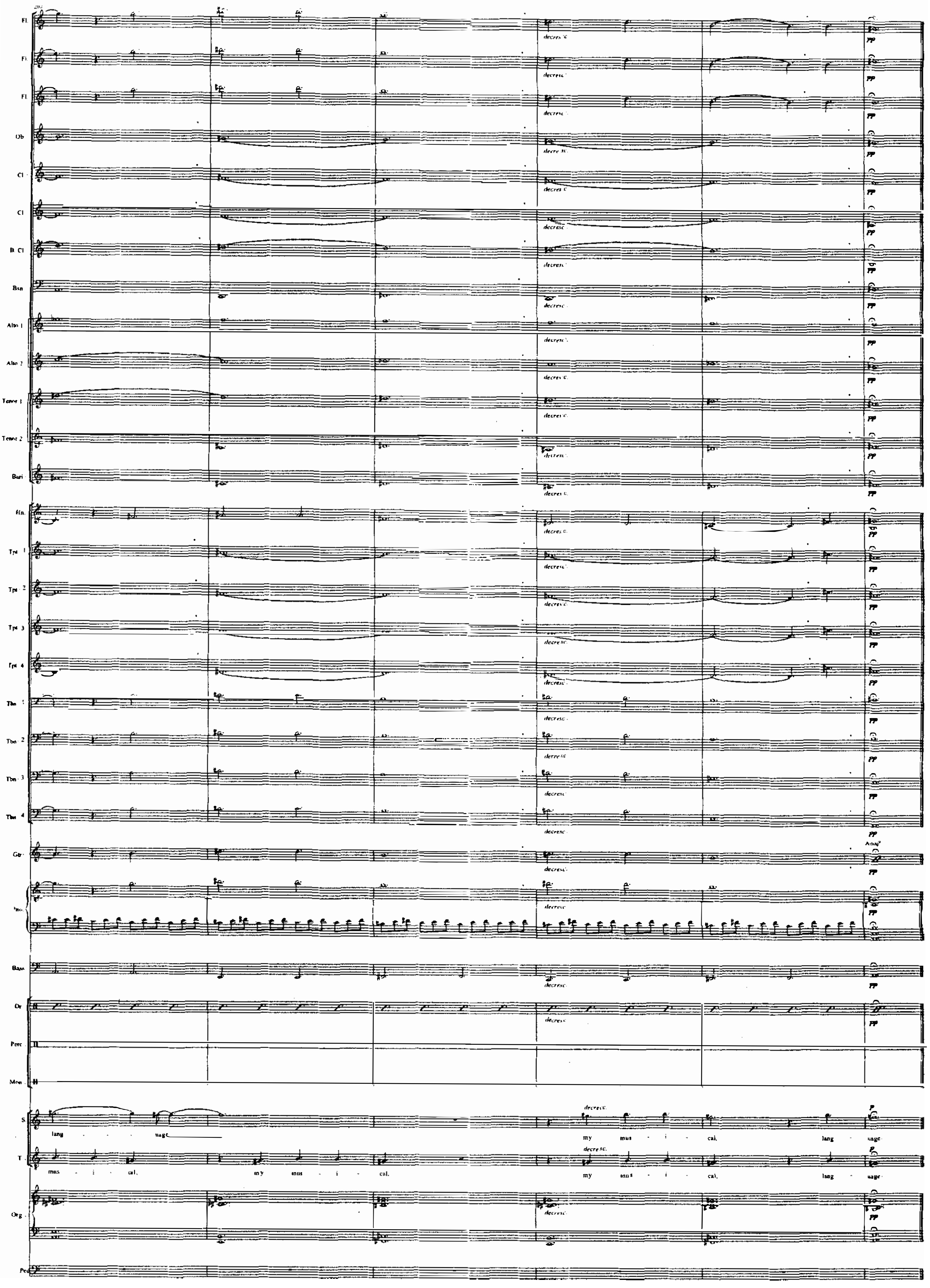

161
Fl.
Fl.
Fl.
Ob.
Cl.
Cl.
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
- uage___ These are my tech - niques, my mus - i - cal___ lang - uage my mus - i - cal, mus - i - cal lang - uage___
Org.
Ped.

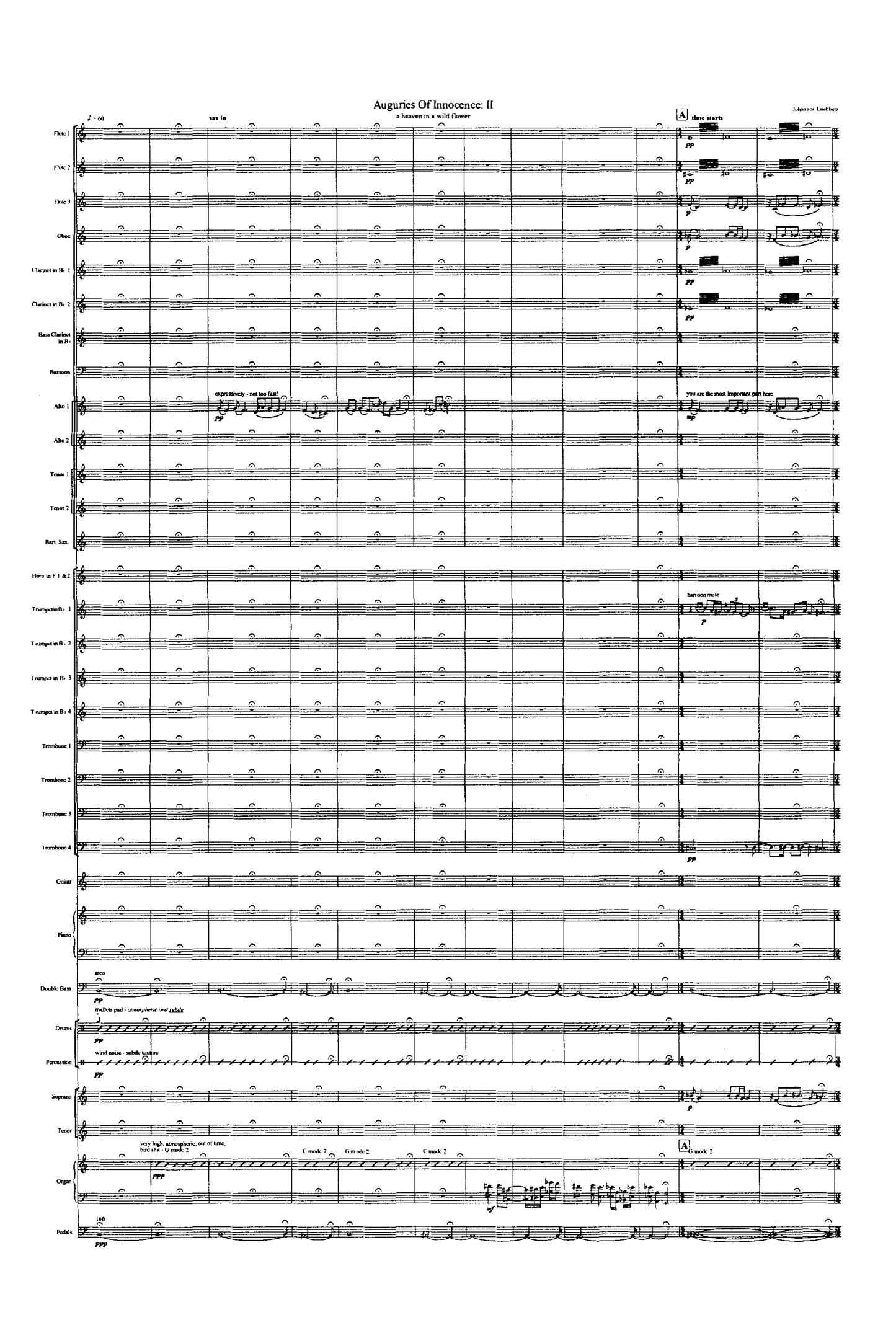

172
poco rit.
Fl.
Fl.
Fl.
Ob.
Cl.
Cl.
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc
Mon.
with flutes
S
These are my tech - niques, my mus - ic my lang - uage my mus - i - cal mus - i - cal
T
These are my tech - niques, my mus - i - cal lang - uage my mus - i - cal, mus - i - cal lang - uage
Org.
Ped.

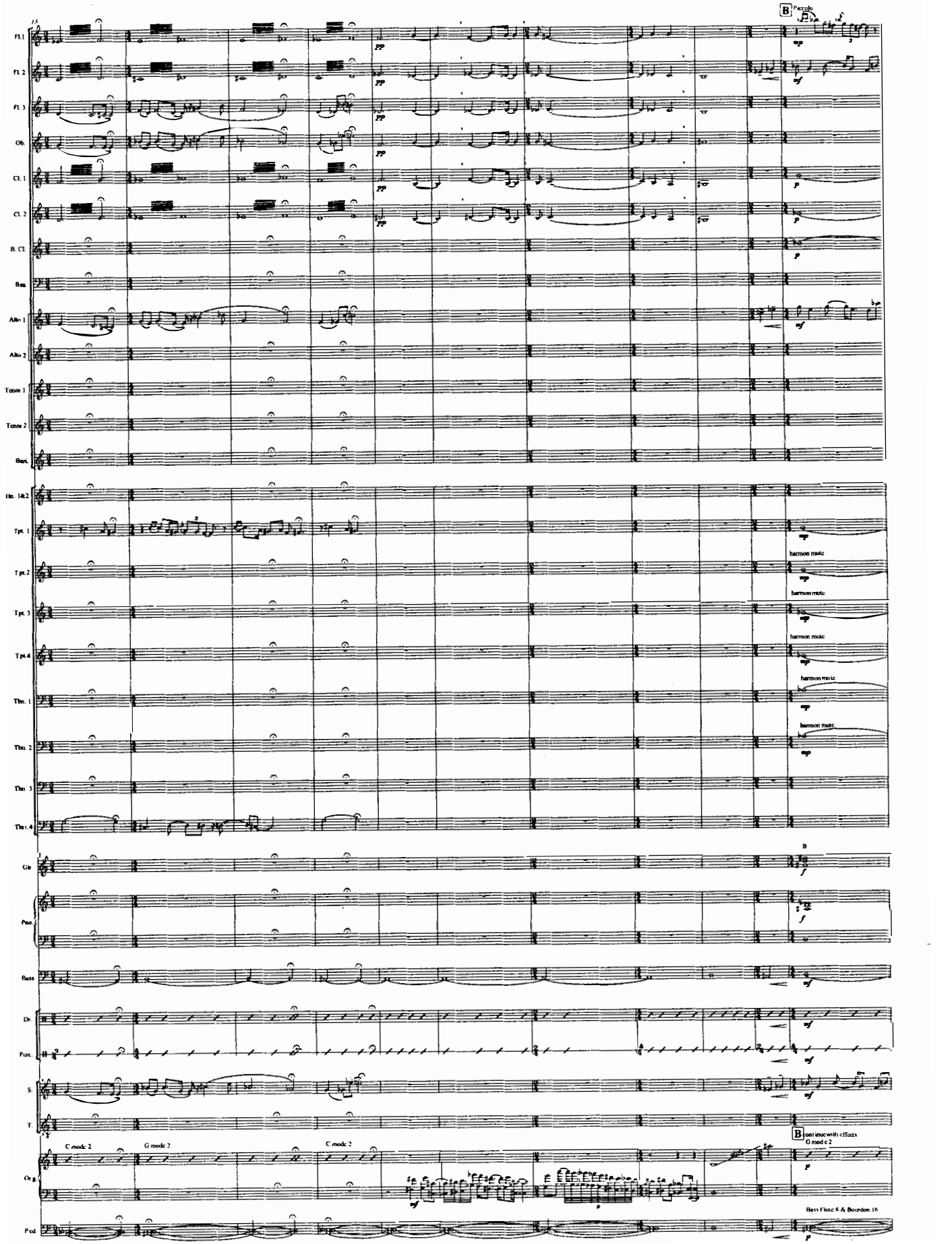

Fl.
Fl.
Fl.
Ob.
Cl.
Cl.
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
lang - nage These are my tech - niques my mus - ic my lang - uage
T.
These are my tech - niques my mus - i - cal lang - nage my mus - i - cal mus - i - cal lang - nage
Org.
Ped.

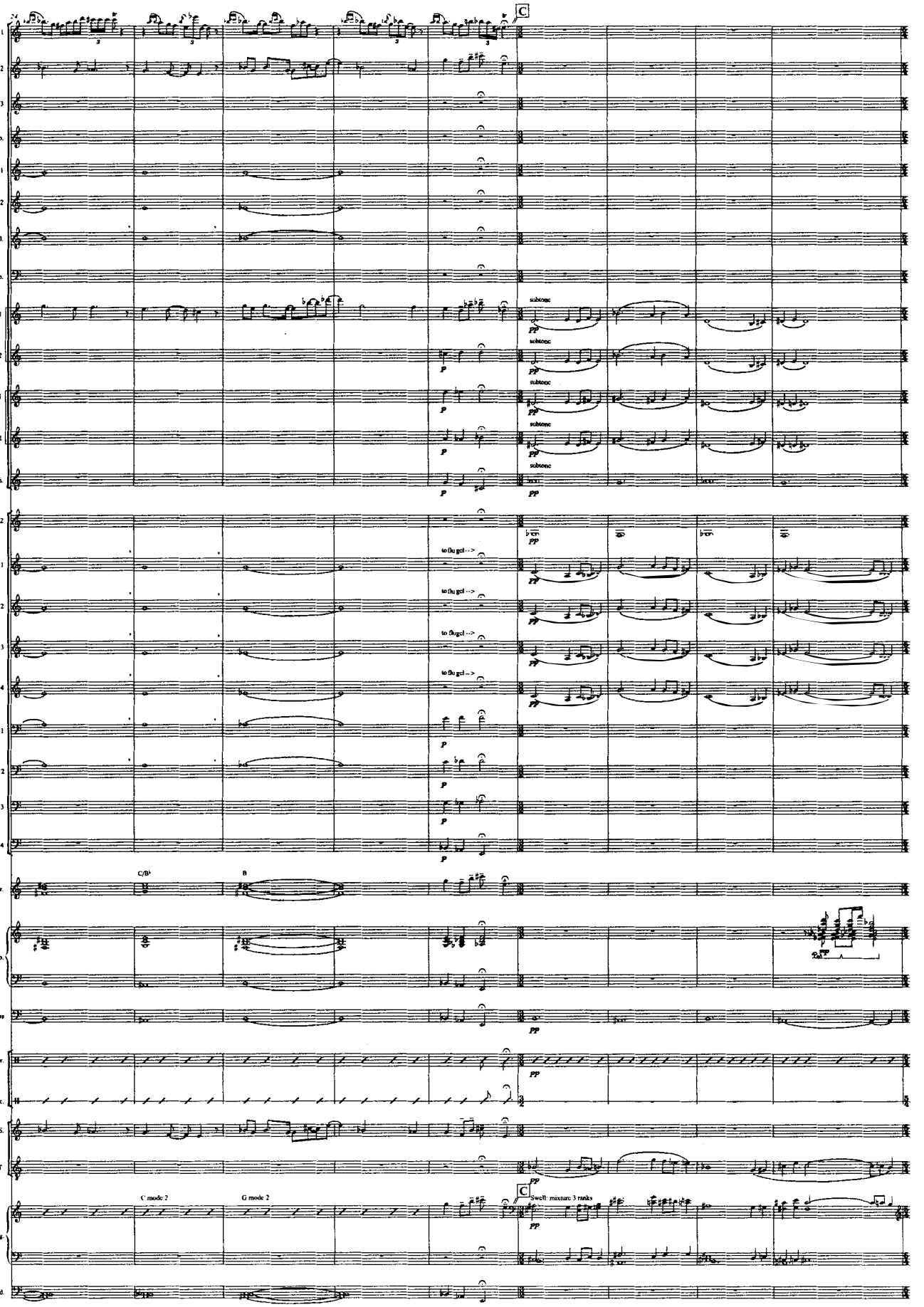

Fl.
Fl.
Fl.
Ob.
Cl.
Cl.
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mca.
S.
T.
Org.
Ped.
decresc.
my___ mus - i - cal___ mus - i - cal_ lang - uage_____
These___ are___ my_ tech - niques, my_
These are my tech - niques, my mus - i - cal_____ lang - uage
my mus - i - cal,
mus - i - cal lang - uage____

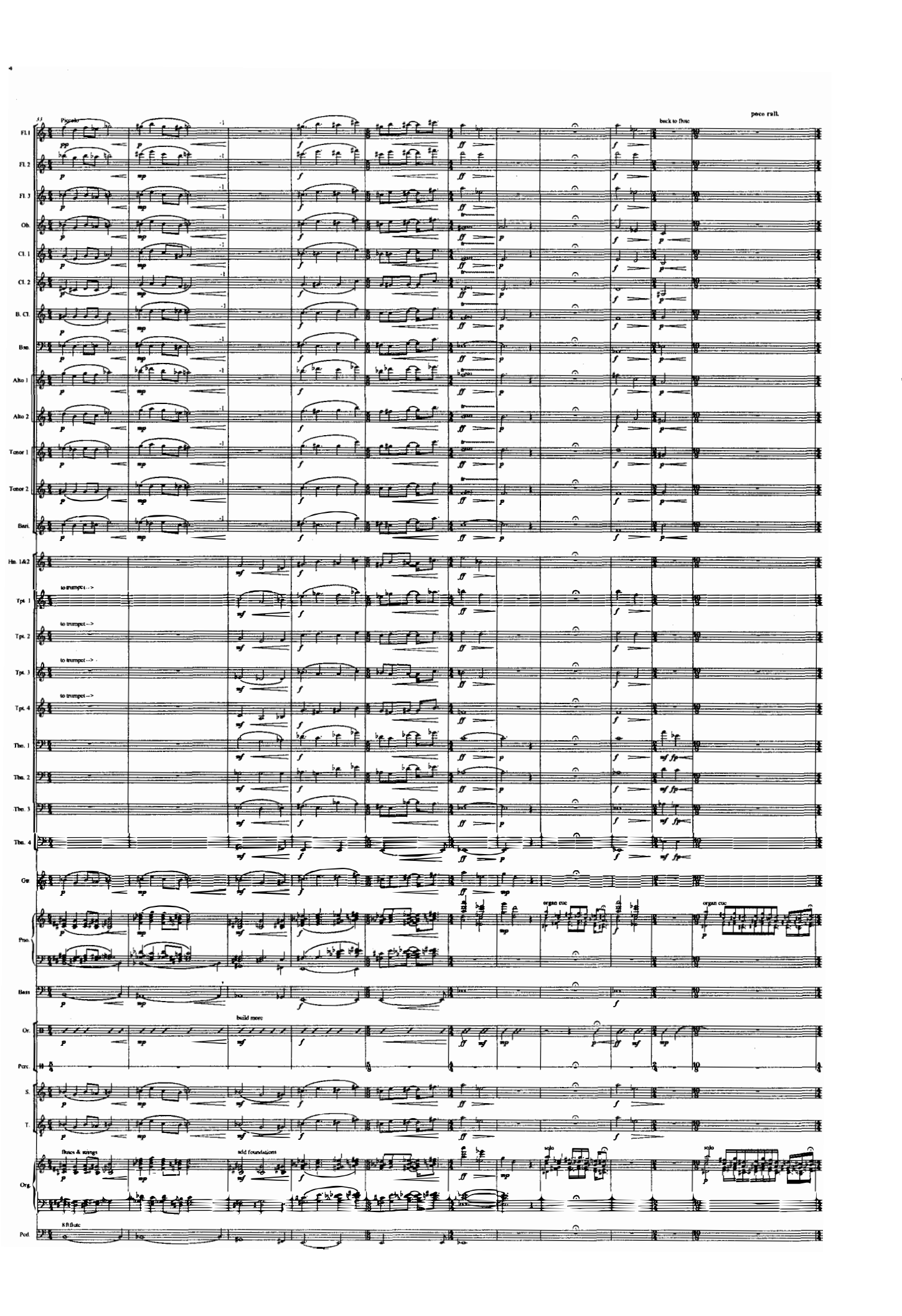

Fl.
Fl.
Fl.
Ob.
Cl.
Cl.
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Ped.
pp
p
swell at will
much more free and open here - not time
mus - ic
my lang uage
my mus - i - cal
mus - i -
These are my tech - niques. my mus - i - cal lan guage my mus - i - cal my

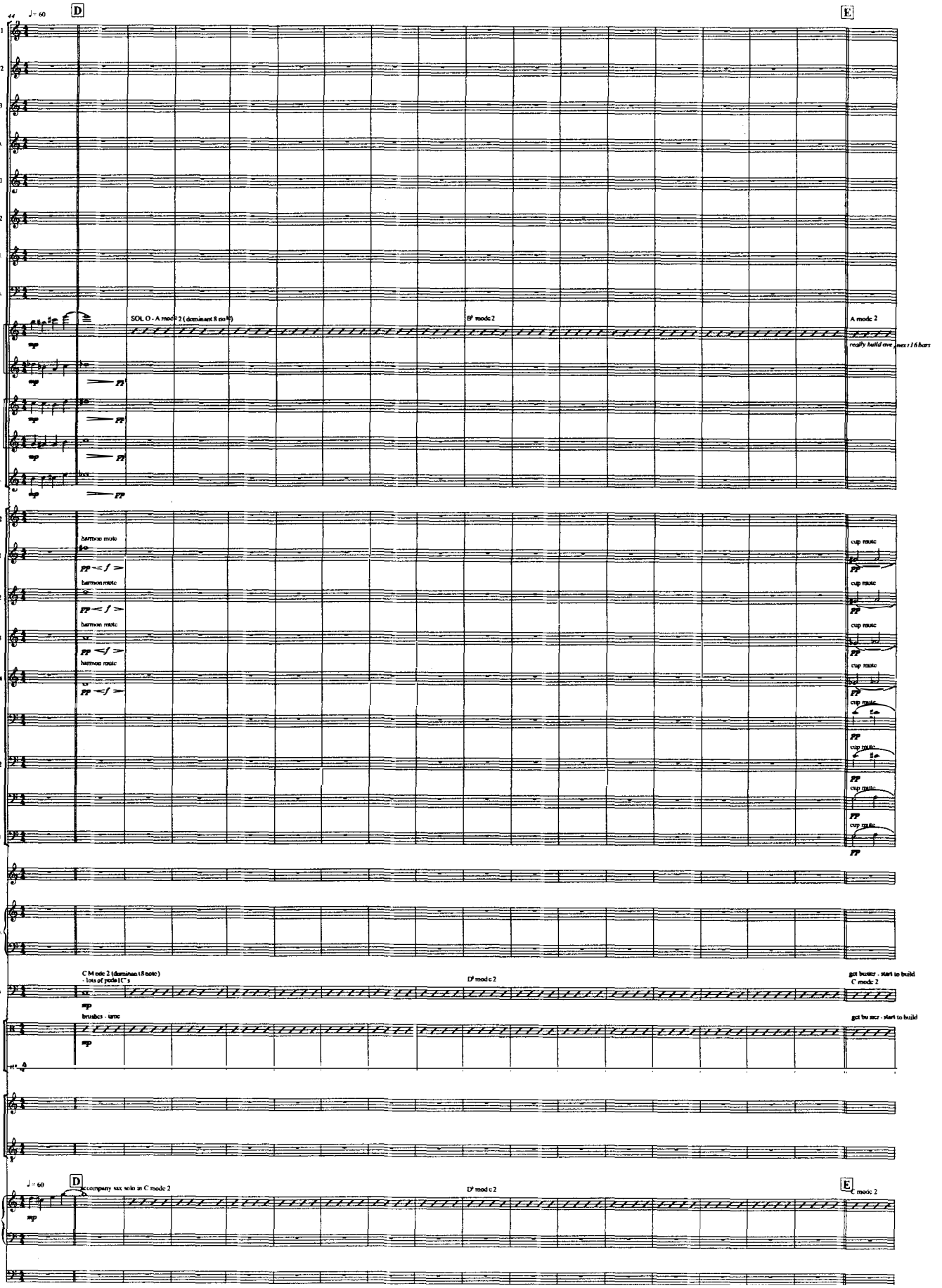

Fl
Fl
Fl
Ob
Cl
Cl
B. Cl
Bsn
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari
Hn
Tpt 1
Tpt 2
Tpt 3
Tpt 4
Tbn 1
Tbn 2
Tbn 3
Tbn 4
Gtr
Bass
Perc
S
lang - - - uage
my mus - i - cal, lang - uage
T
mus - i - cal, my mus - i - cal,
my mus - i - cal, lang - uage
Org
decresc.
pp

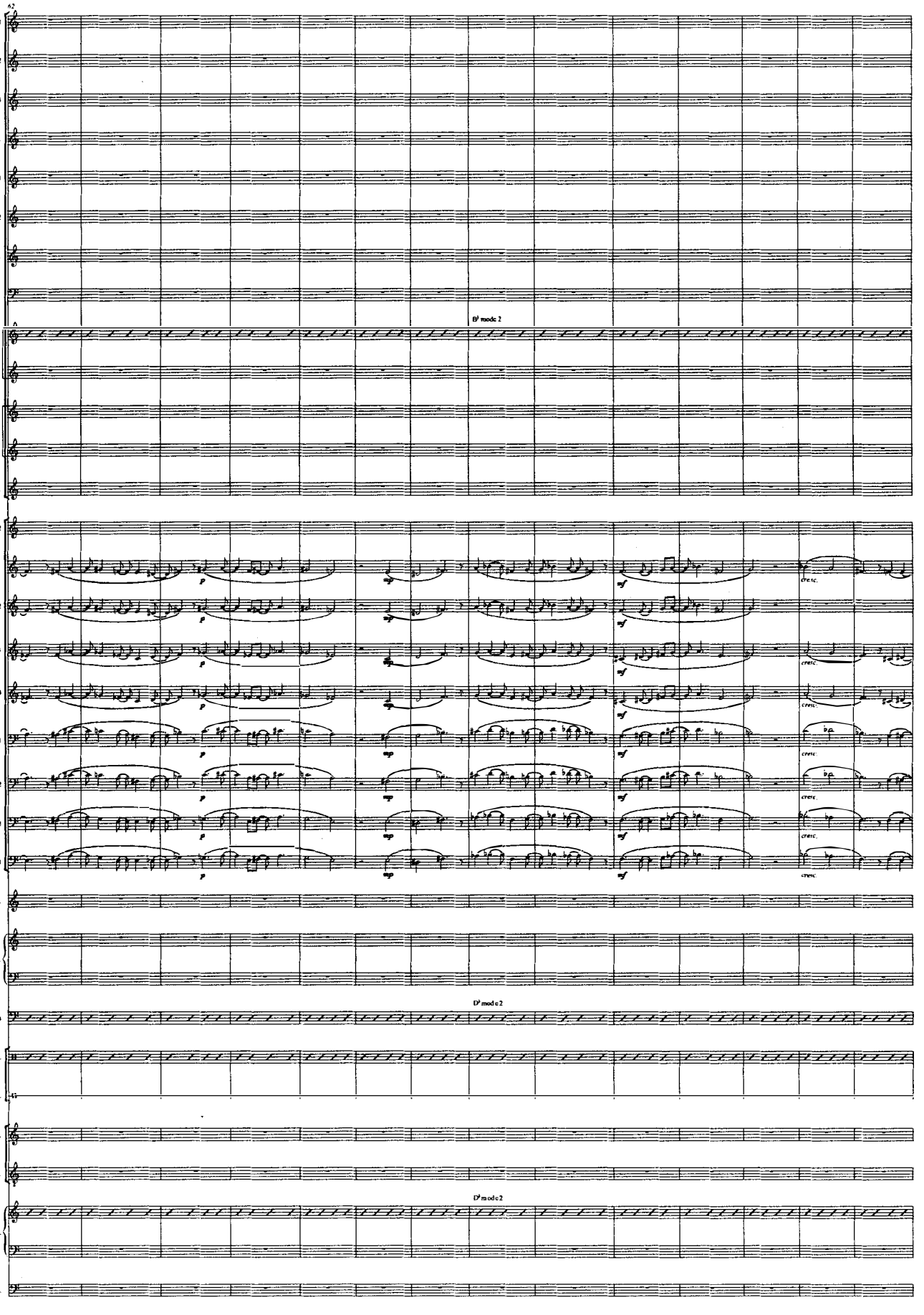

Auguries Of Innocence: II
Johannes Luebbers
♪ = 60
sax in
a heaven in a wild flower
A
time starts
Flute 1
Flute 2
Flute 3
Oboe
Clarinet in B♭ 1
Clarinet in B♭ 2
Bass Clarinet in B♭
Bassoon
Alto 1
expressively - not too fast!
you are the most important part here
Alto 2
Tenor 1
Tenor 2
Bari. Sax.
Horn in F 1 & 2
Trumpet in B♭ 1
harmon mute
Trumpet in B♭ 2
Trumpet in B♭ 3
Trumpet in B♭ 4
Trombone 1
Trombone 2
Trombone 3
Trombone 4
Guitar
Piano
Double Bass
arco
mallets pad - atmospheric and subtle
Drums
wind noise - subtle texture
Percussion
Soprano
Tenor
very high, atmospheric, out of time,
bird shit - G mode 2
C mode 2
G mode 2
C mode 2
A
G mode 2
Organ
168
Pedals

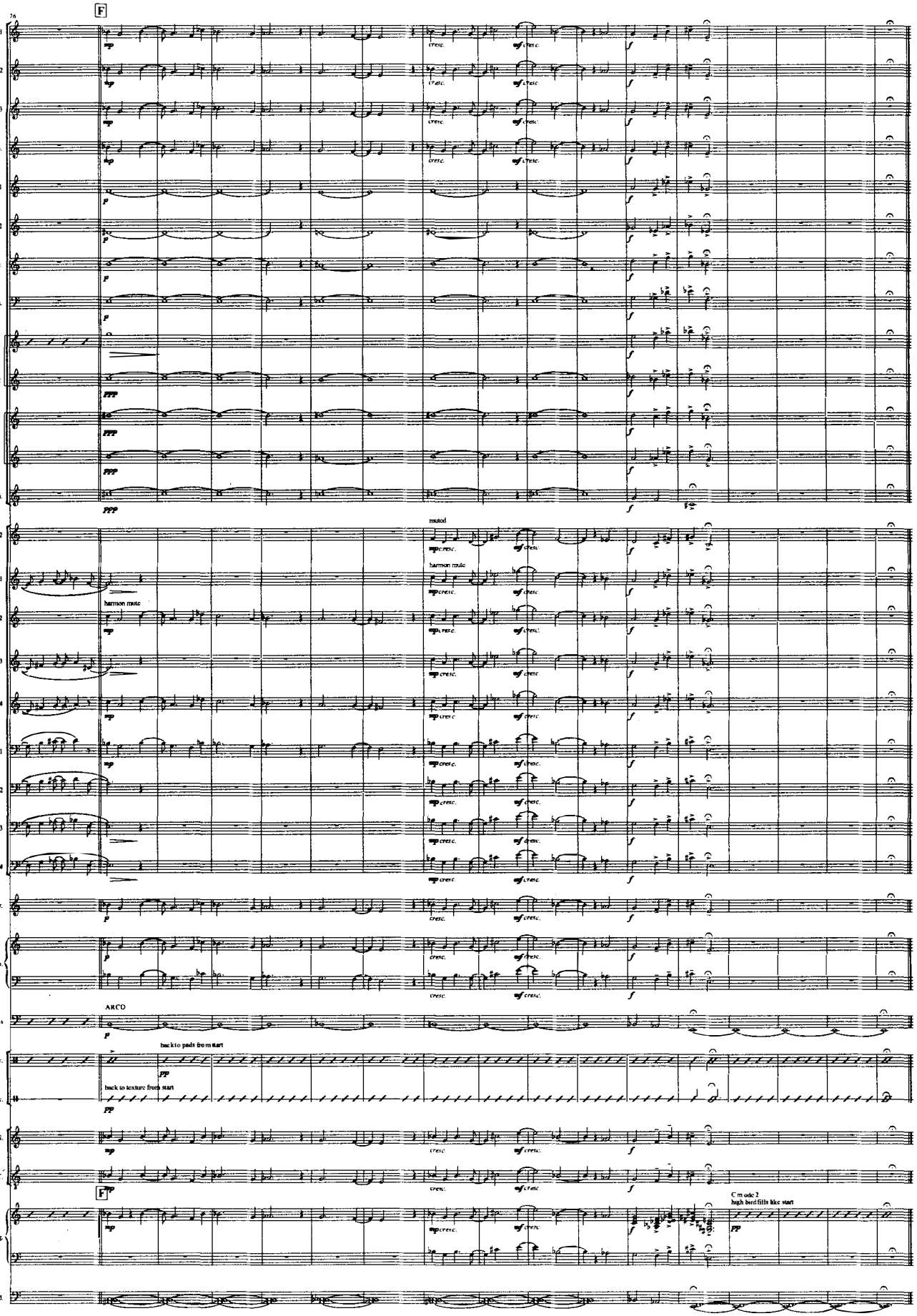

B Parade
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn. 1&2
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
S.
T.
Org.
Ped.
harmon mute
C mode 2
G mode 2
C mode 2
B cont. true with effects
G mode 2
Bass Flute 8 & Bourdon 16




Piccolo
back to flute
poco rall.
to trumpet -->
to trumpet -->
to trumpet -->
to trumpet -->
organ cue
organ cue
build more
flutes & strings
add foundations
solo
solo
8 ft flute


♩= 60
D
E
Fl.1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
SOL O - A mode 2 (dominant 8 note)
B♭ mode 2
A mode 2
really build ove
mes : 16 bars
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
harmon mute
cup mute
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
C M ode 2 (dominan t8 note)
- lots of pedal C's
D♭ mode 2
get busier - start to build
C mode 2
Bass
brushes - tame
Dr.
Perc.
S.
T.
♩= 60
D
accompany sax solo in C mode 2
D♭ mode 2
E
C mode 2
Org.
Ped.

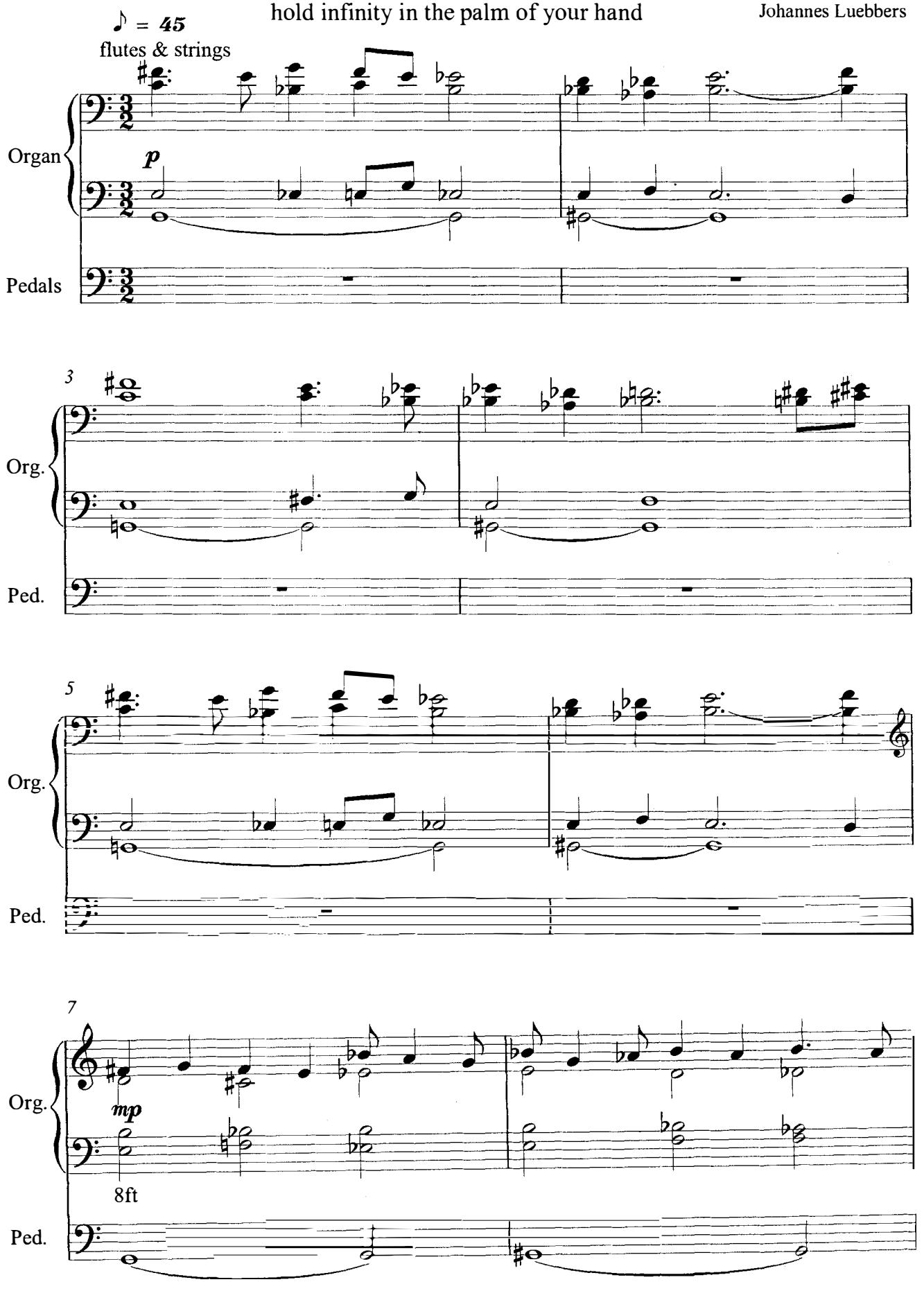

A2
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
B♭ mode 2
Alto 1
Alto 2
Tenor 1
Tenor 2
Bars.
Hn. 1& 2
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
D♭ mode 2
Bass
Dr.
Perc.
S.
T.
D♭ mode 2
Org.
Ped.
p
mp
mf
cresc.

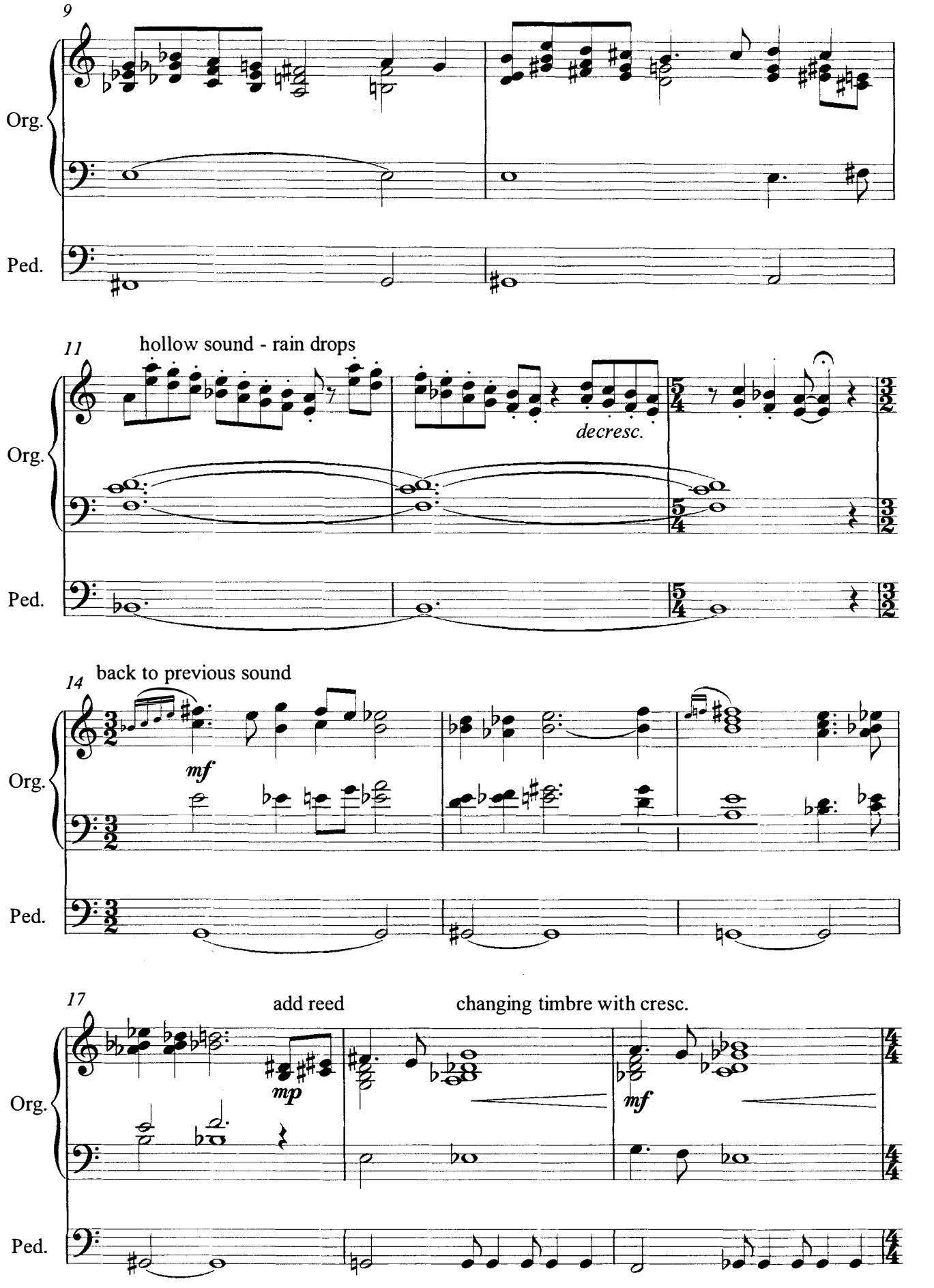

76
F
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Alto 1
Alto 2
Tenor 1
Tenor 2
Bari.
Hn. 1&2
muted
Tpt. 1
harmon mute
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbe. 4
Gtr.
Pno.
Bass
ARCO
Dr.
back to pads from start
Perc.
back to texture from start
S.
T.
F
Org.
C m ode 2
high bird fills like start
Ped.

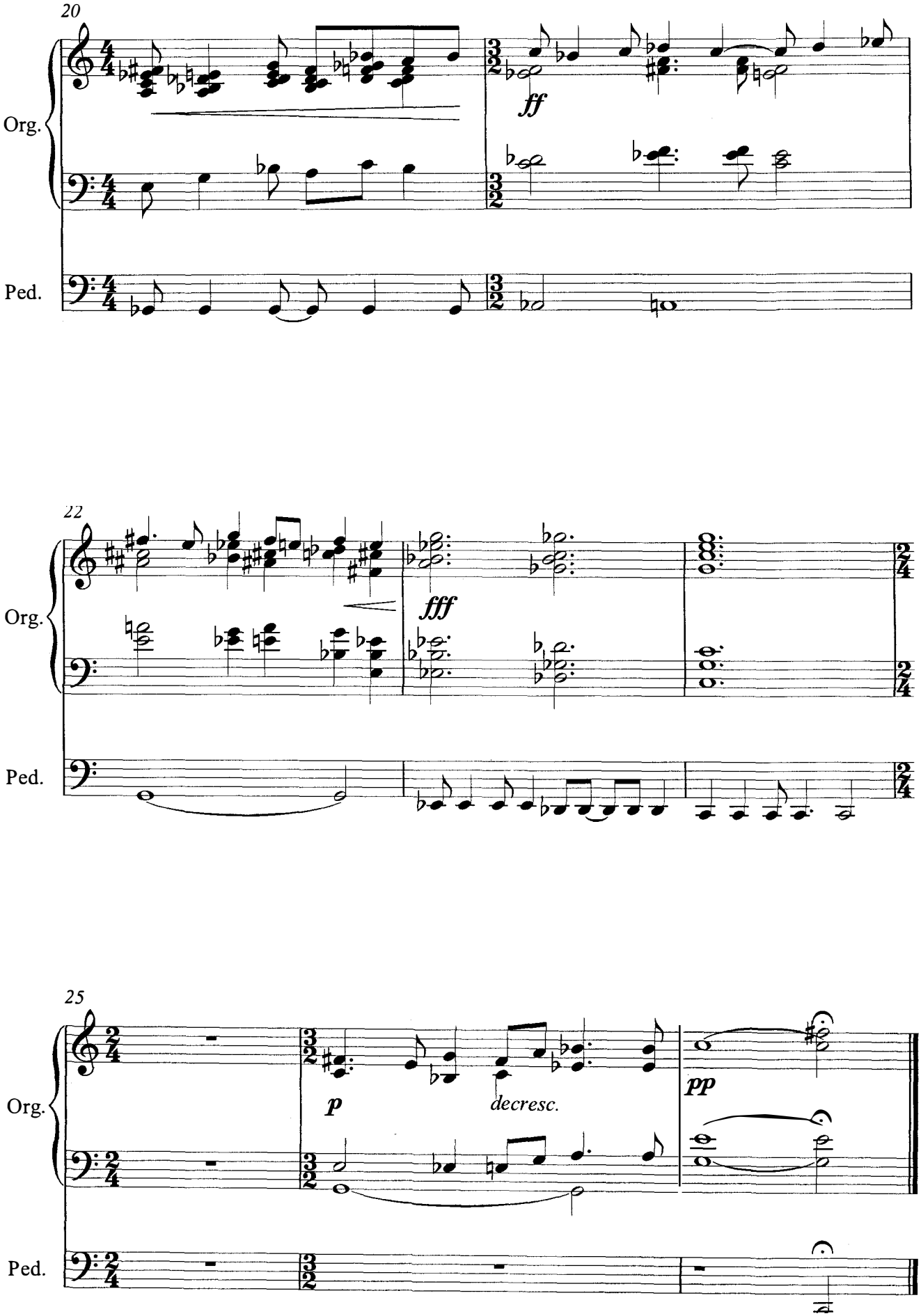
Auguries of Innocence: III

hold infinity in the palm of your hand

Johannes Luebbers




9
Org.
Ped.
11
hollow sound - rain drops
decresc.
Org.
Ped.
14
back to previous sound
mf
Org.
Ped.
17
add reed
changing timbre with cresc.
mp
mf
Org.
Ped.

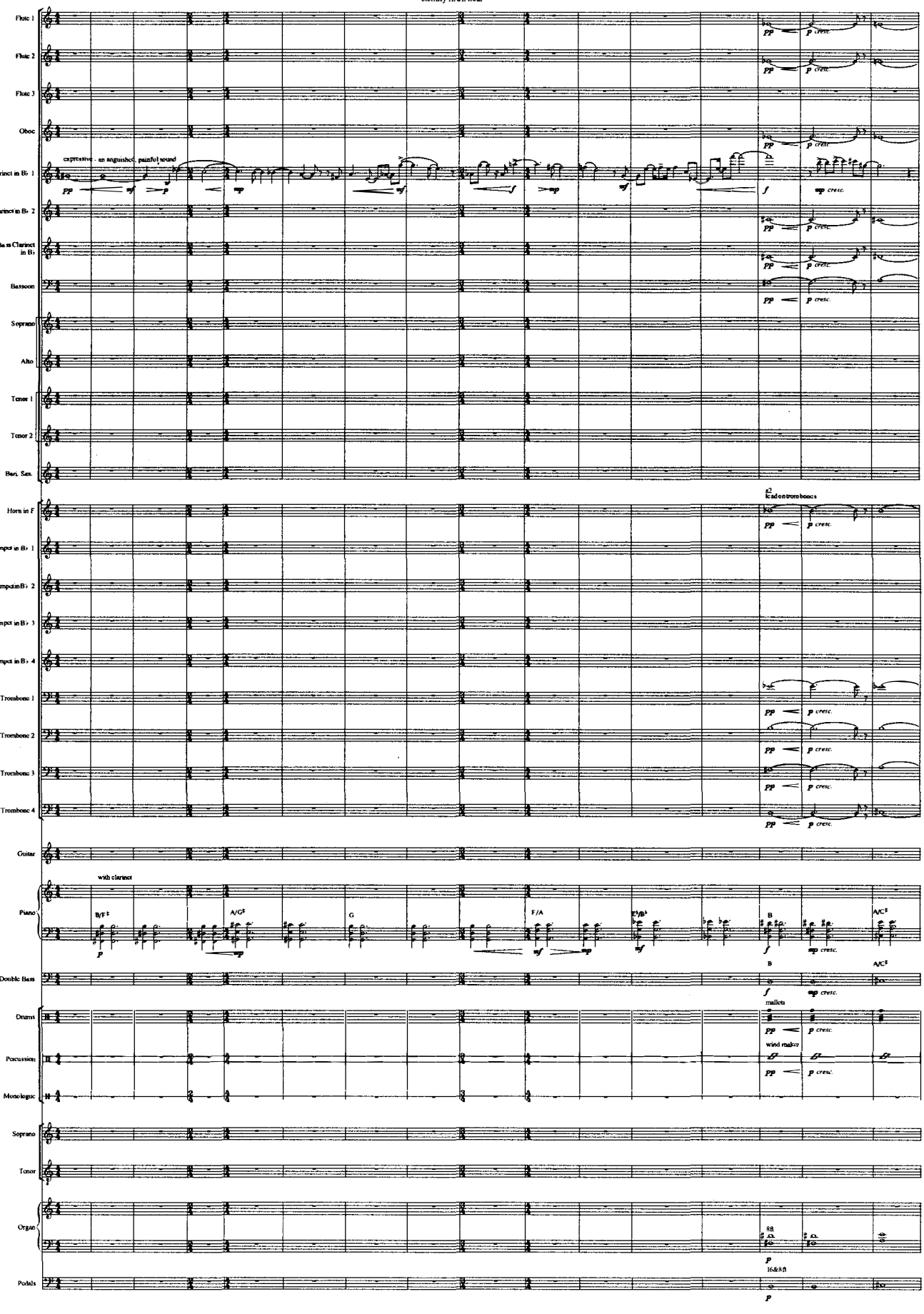

20
Org.
Ped.
ff
22
Org.
Ped.
fff
25
Org.
Ped.
p
decresc.
pp

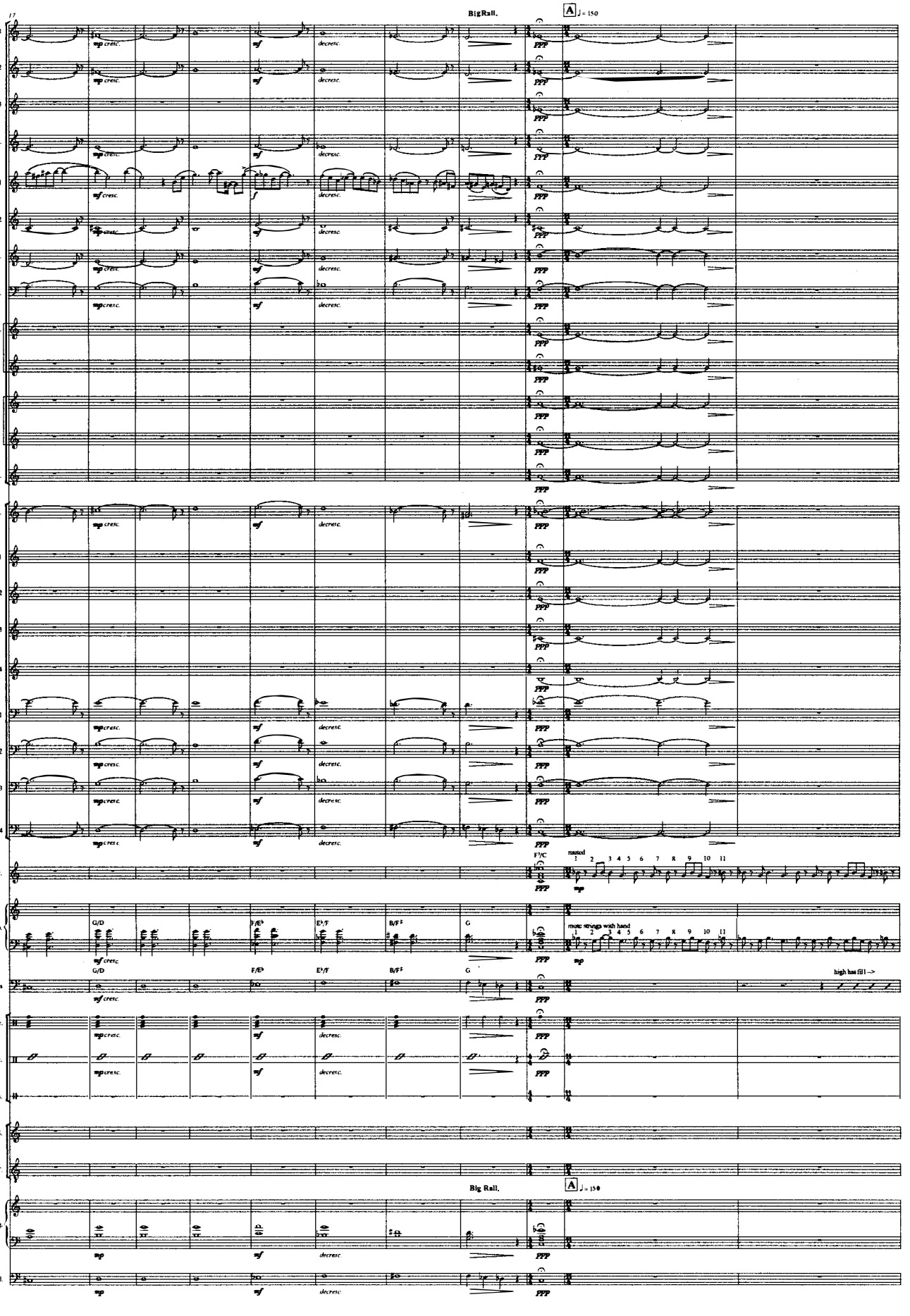
♩ = 50

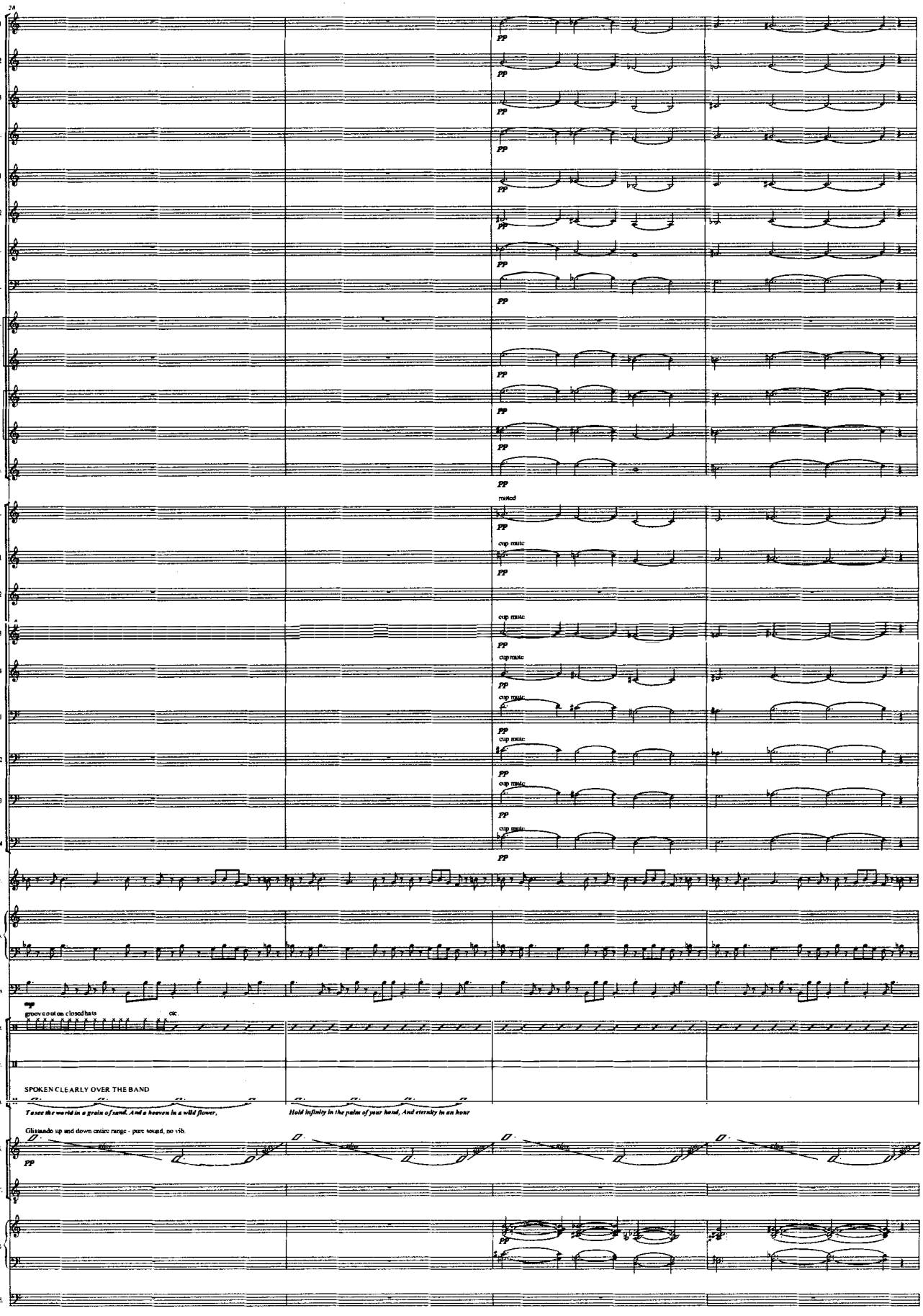
Auguries of Innocence: IV

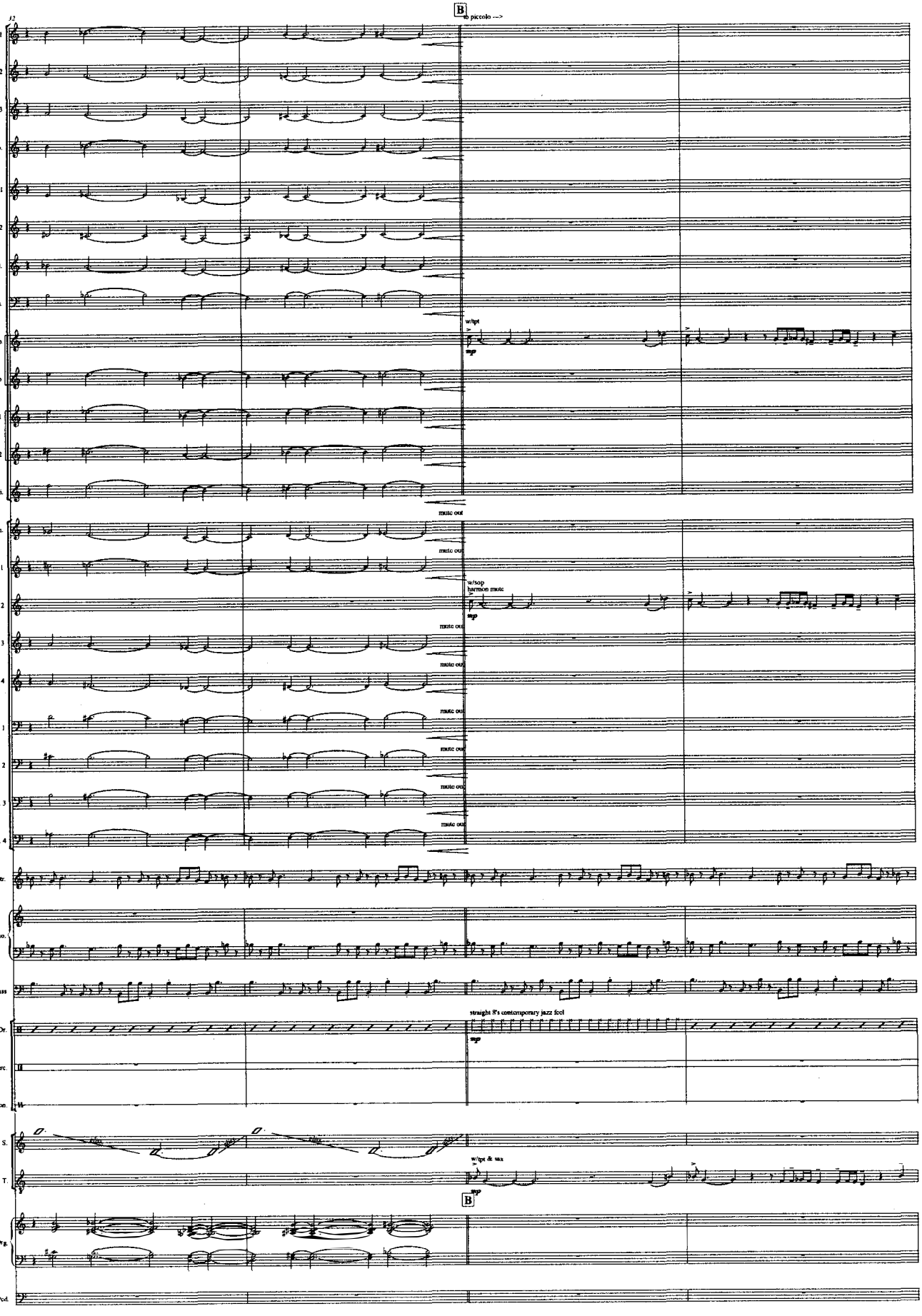
eternity in an hour

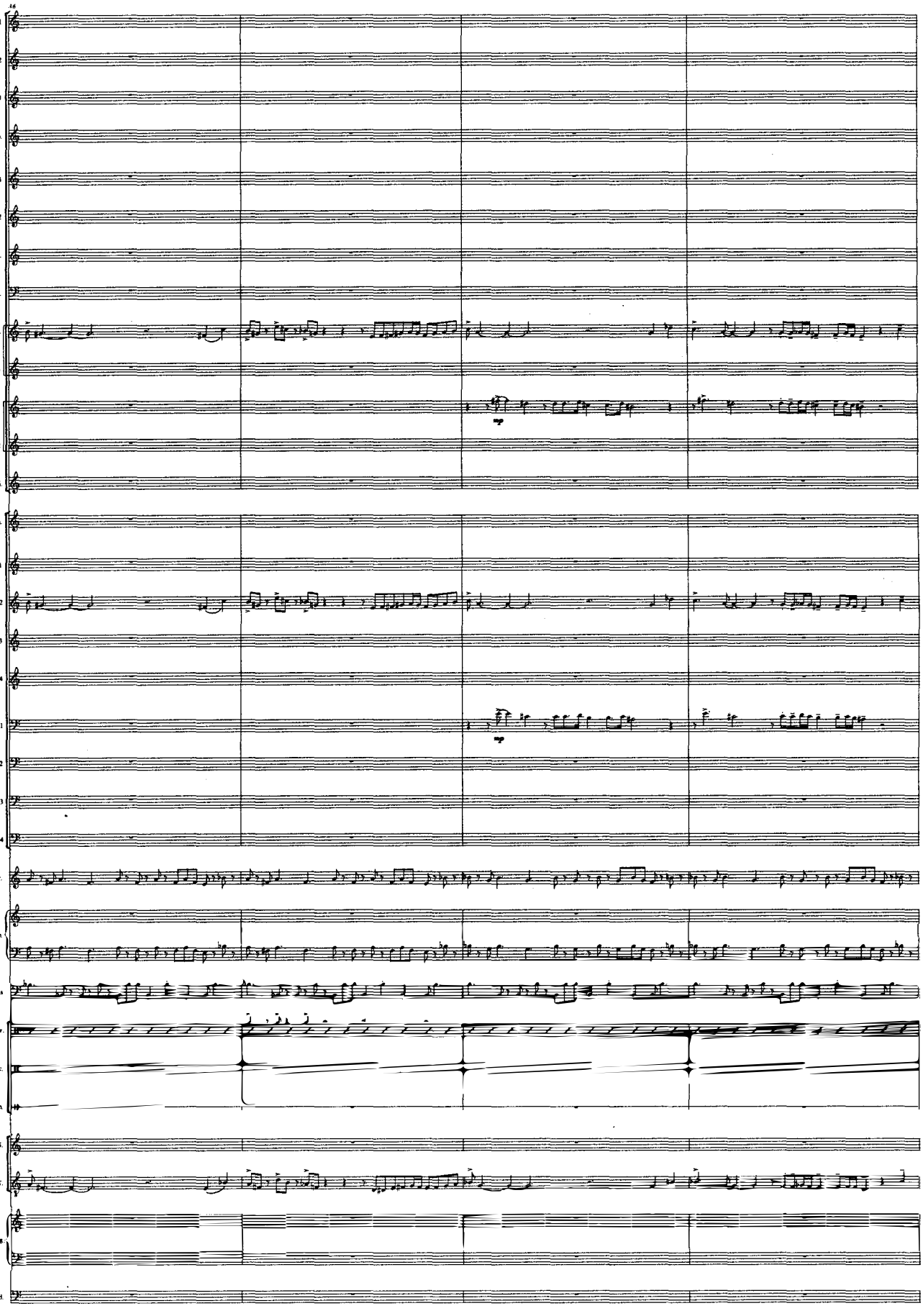
Johannes Luebbers

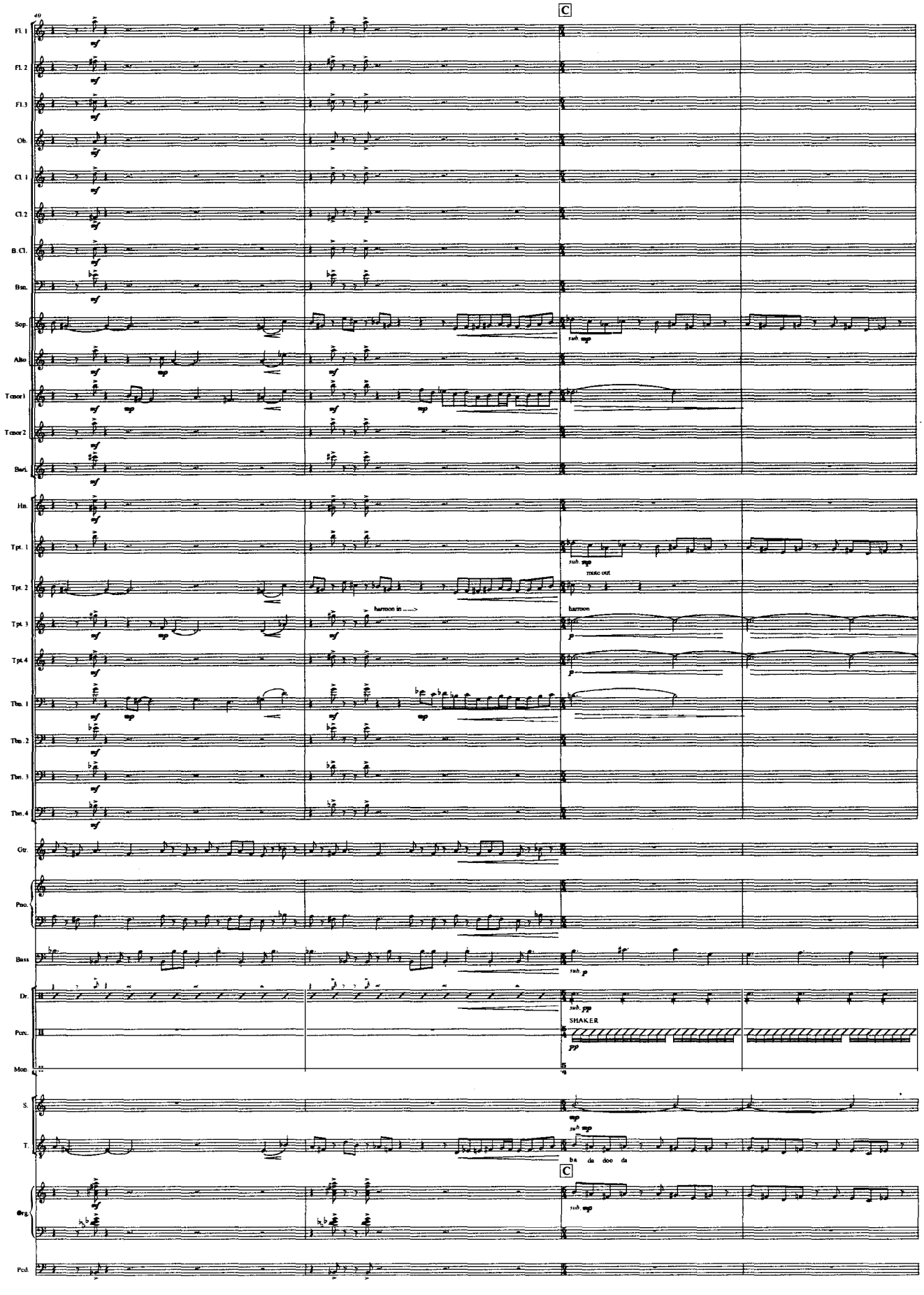


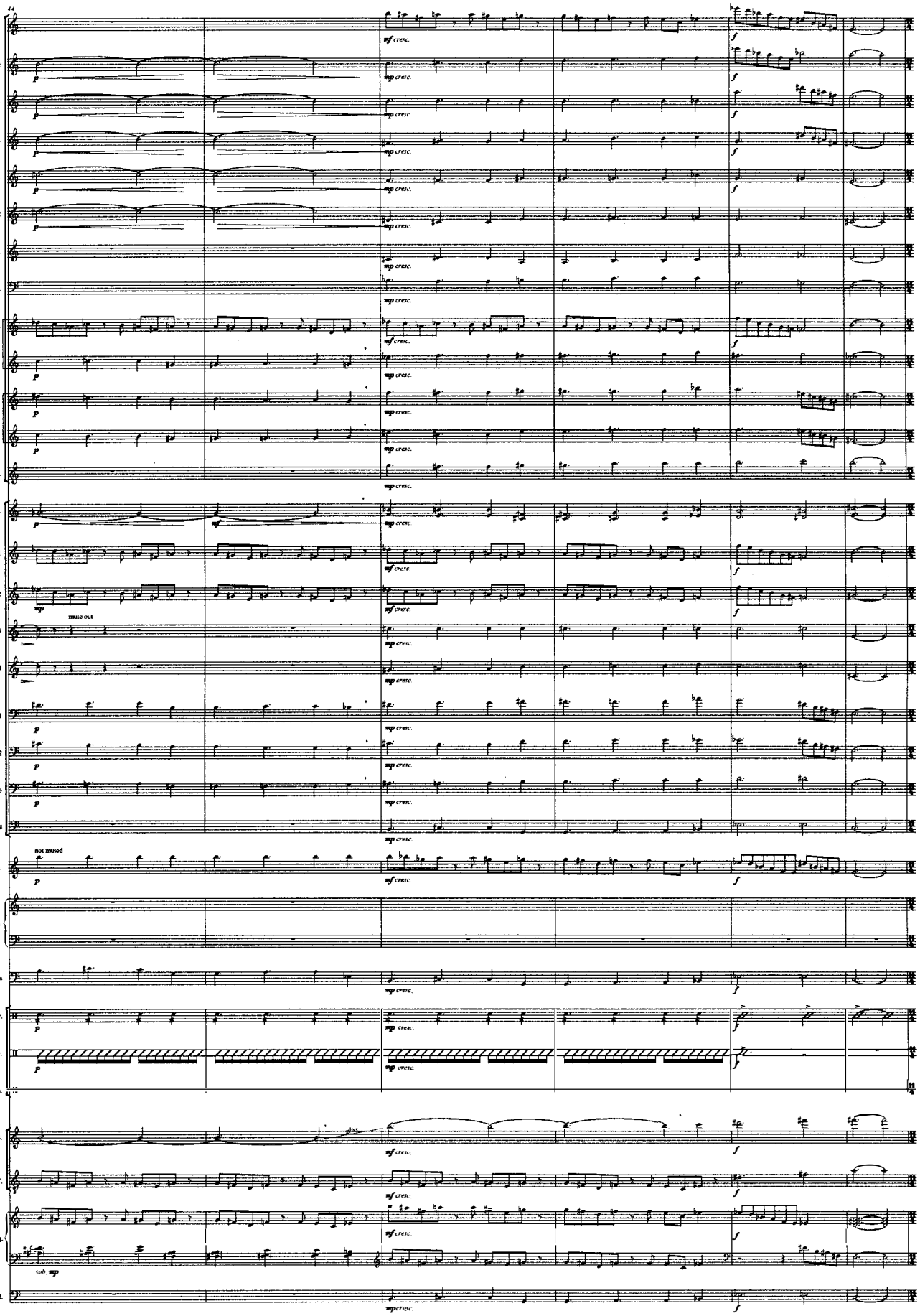

17
BigRall.
A ♩= 150
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Perc.
mp cresc.
sf
decresc.
ppp
f
F7/C
muted
mp
G/D
F/E♭
E♭/F
B/F
G
mute strings with hand
high hat fill -->
Big Rall.
A ♩= 150

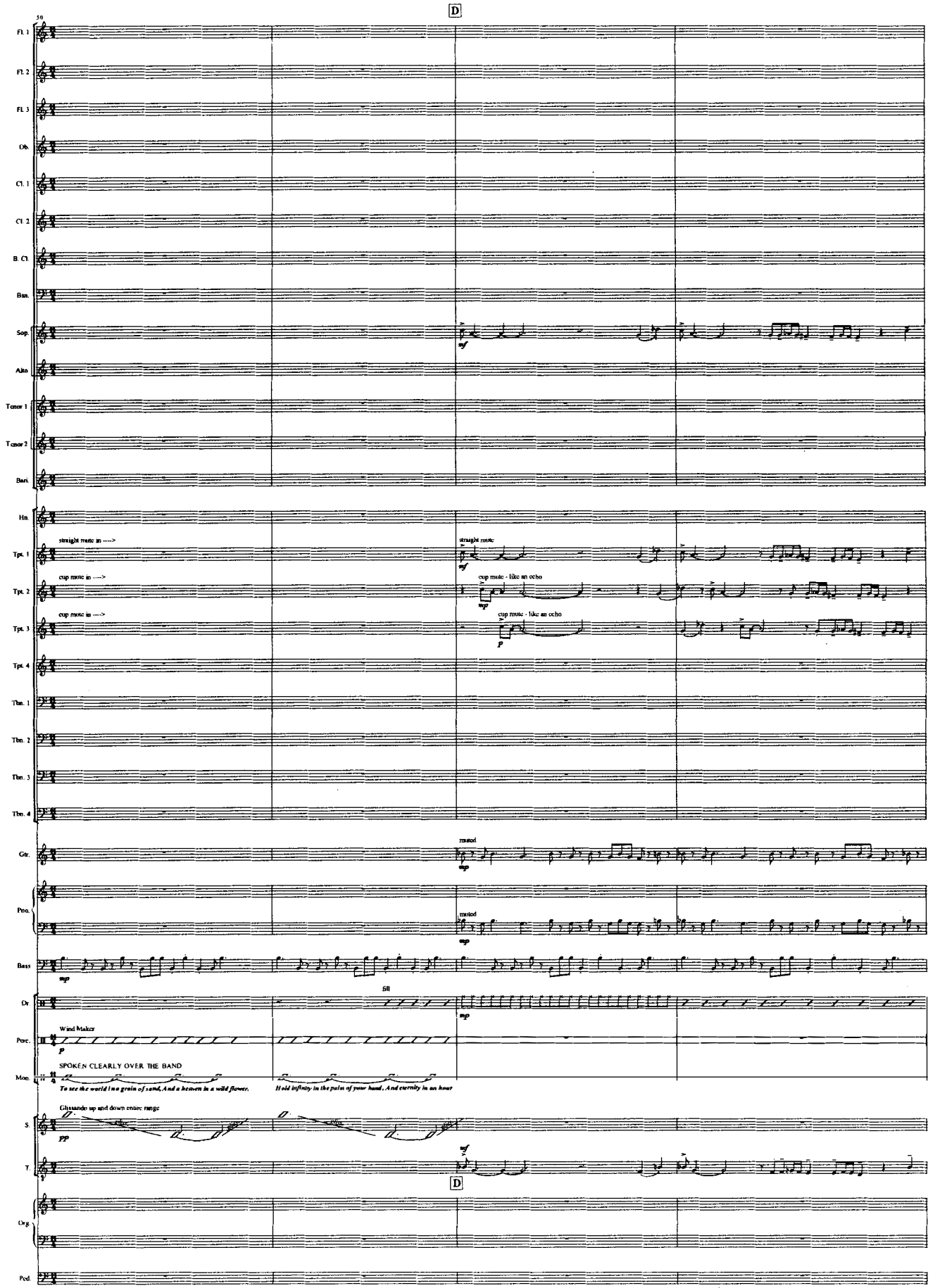

2#
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.
PP
muted
cup mute
SPOKEN CLEARLY OVER THE BAND
To see the world in a grain of sand, And a heaven in a wild flower,
Hold Infinity in the palm of your hand, And eternity in an hour
Glissando up and down entire range - pure sound, no vib.

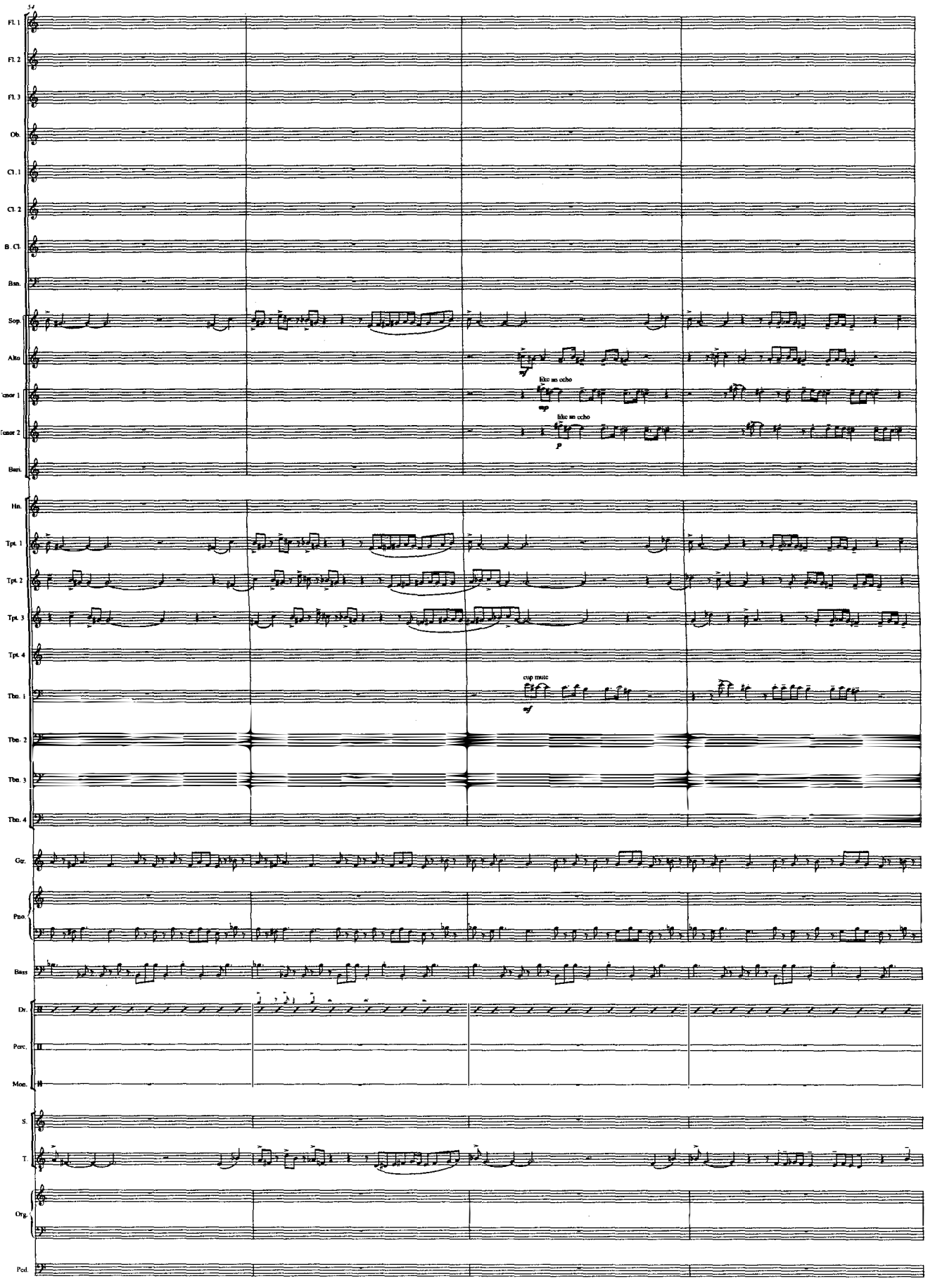

B
to piccolo --->
Fl. 1
Fl. 2
Fl 3
Ob.
Cl. 1
Cl. 2
B.Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
w/tpt
mp
mute out
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
w/sop
harmon mute
Gtr.
Pno.
Bass
straight 8's contemporary jazz feel
Dr.
Perc.
Mon.
S.
T.
w/tpt & sax
B
Org.
Ped.

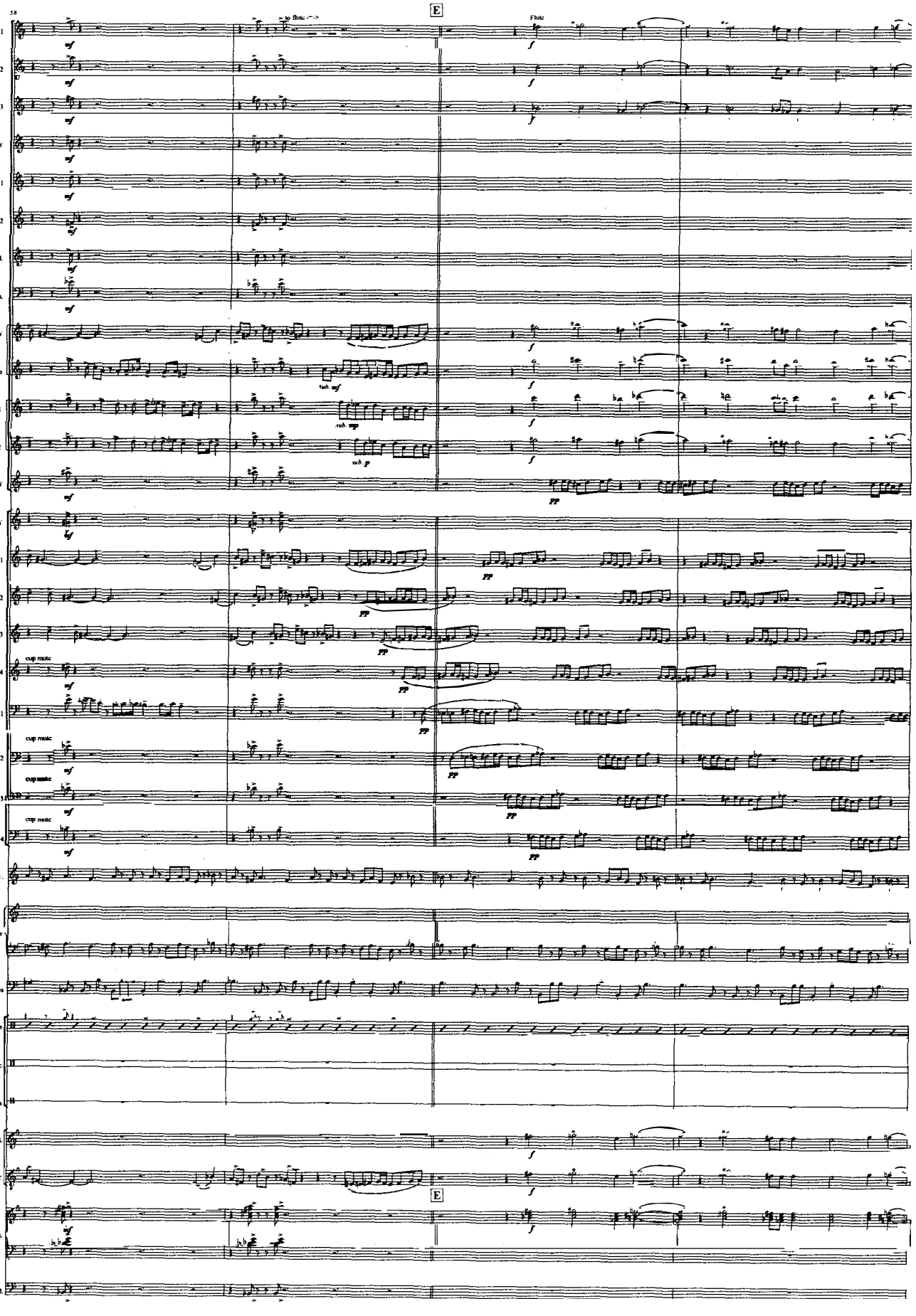

46
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.
mp
mp

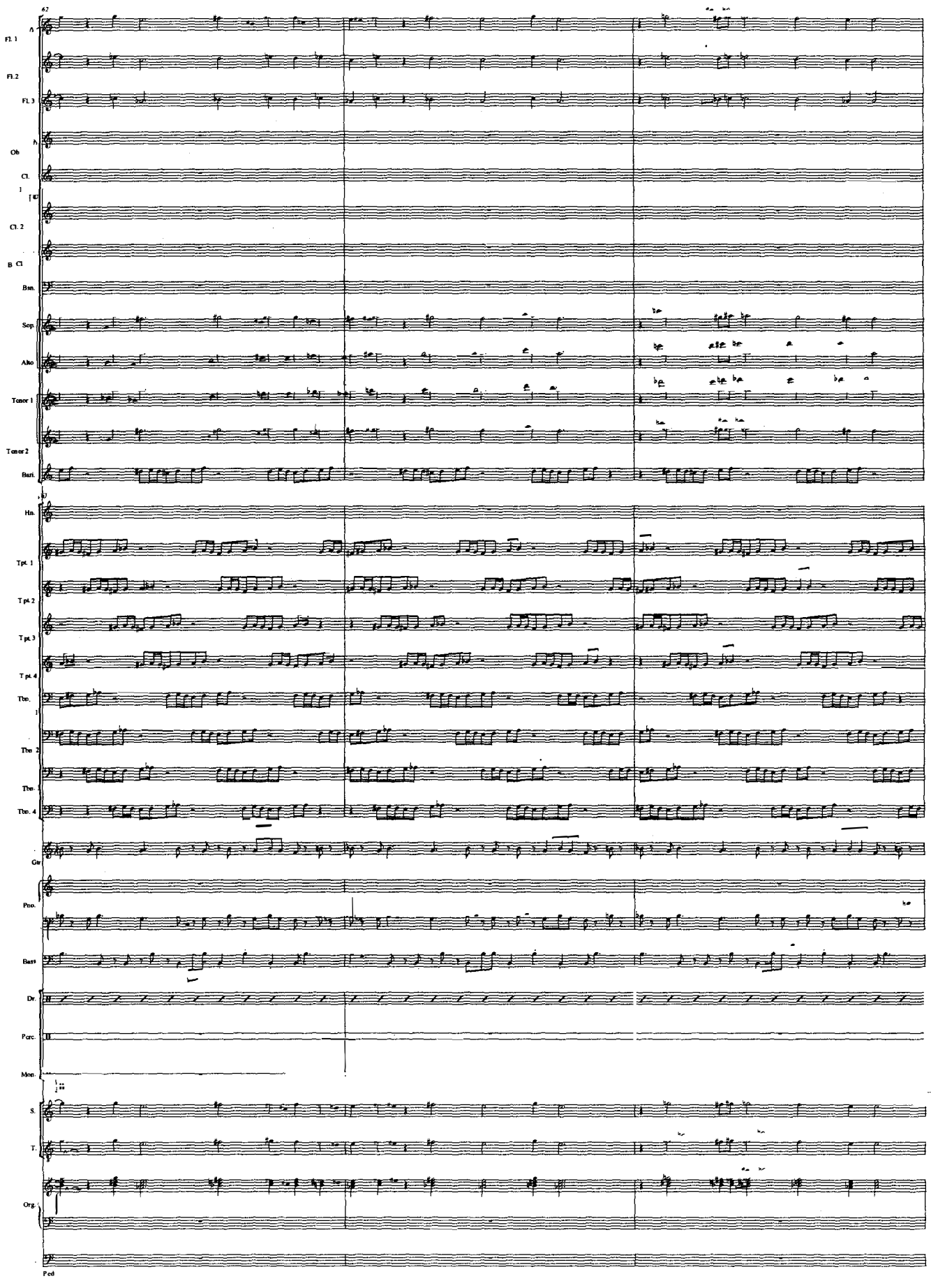

C
Fl. 1
Fl. 2
Fl.3
Ob.
Cl. 1
Cl.2
B. Cl.
Bsn.
Sop.
Alto
Tenor1
Tenor2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt.4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn.4
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Pcd.
sub. mp
mute out
harmon in ---->
harmon
SHAKER
ba da doo da
C

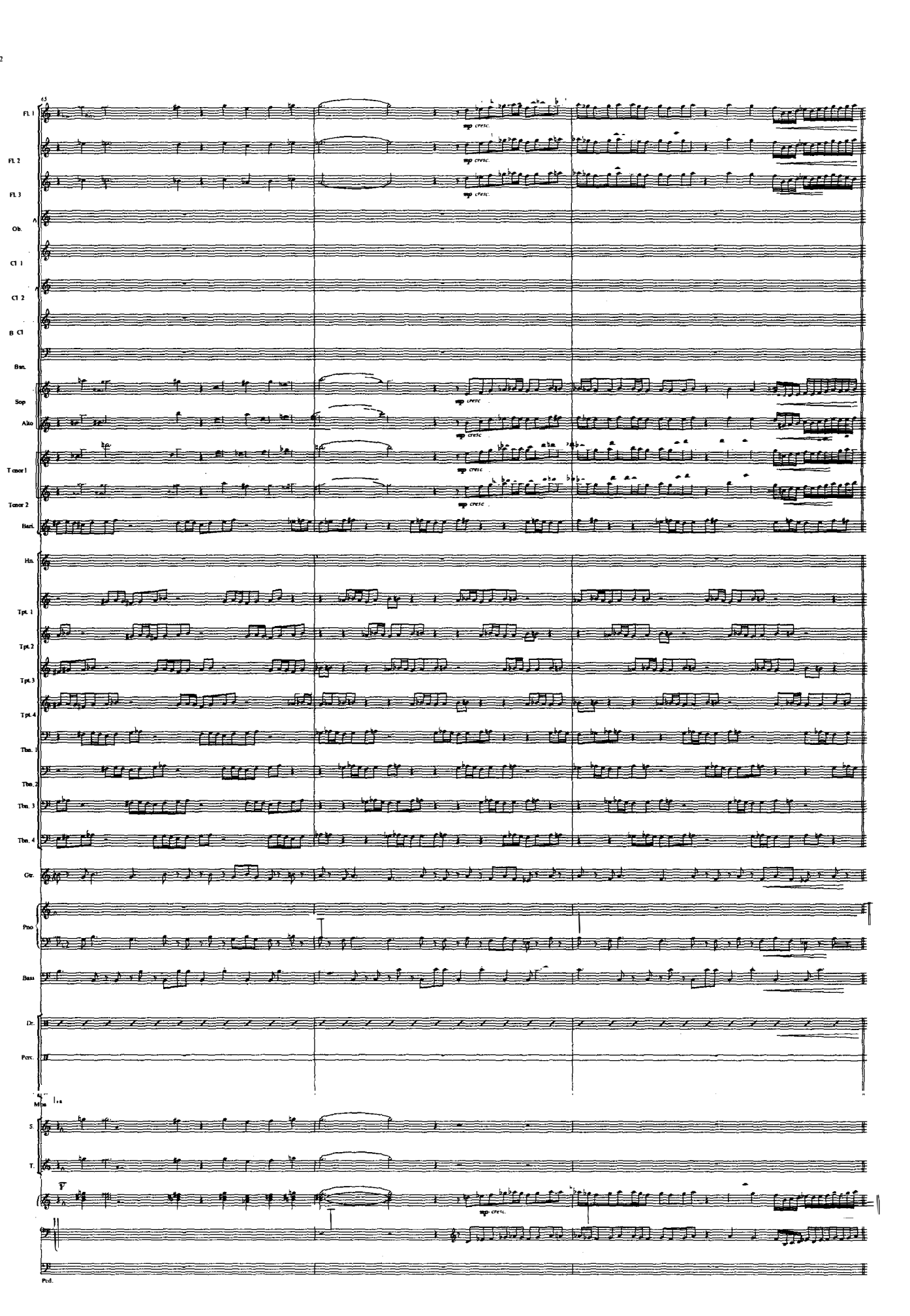

Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Or.
Perc.
Mon.
S.
T.
Org.
Pcd.
mute out
not muted
sub. mp

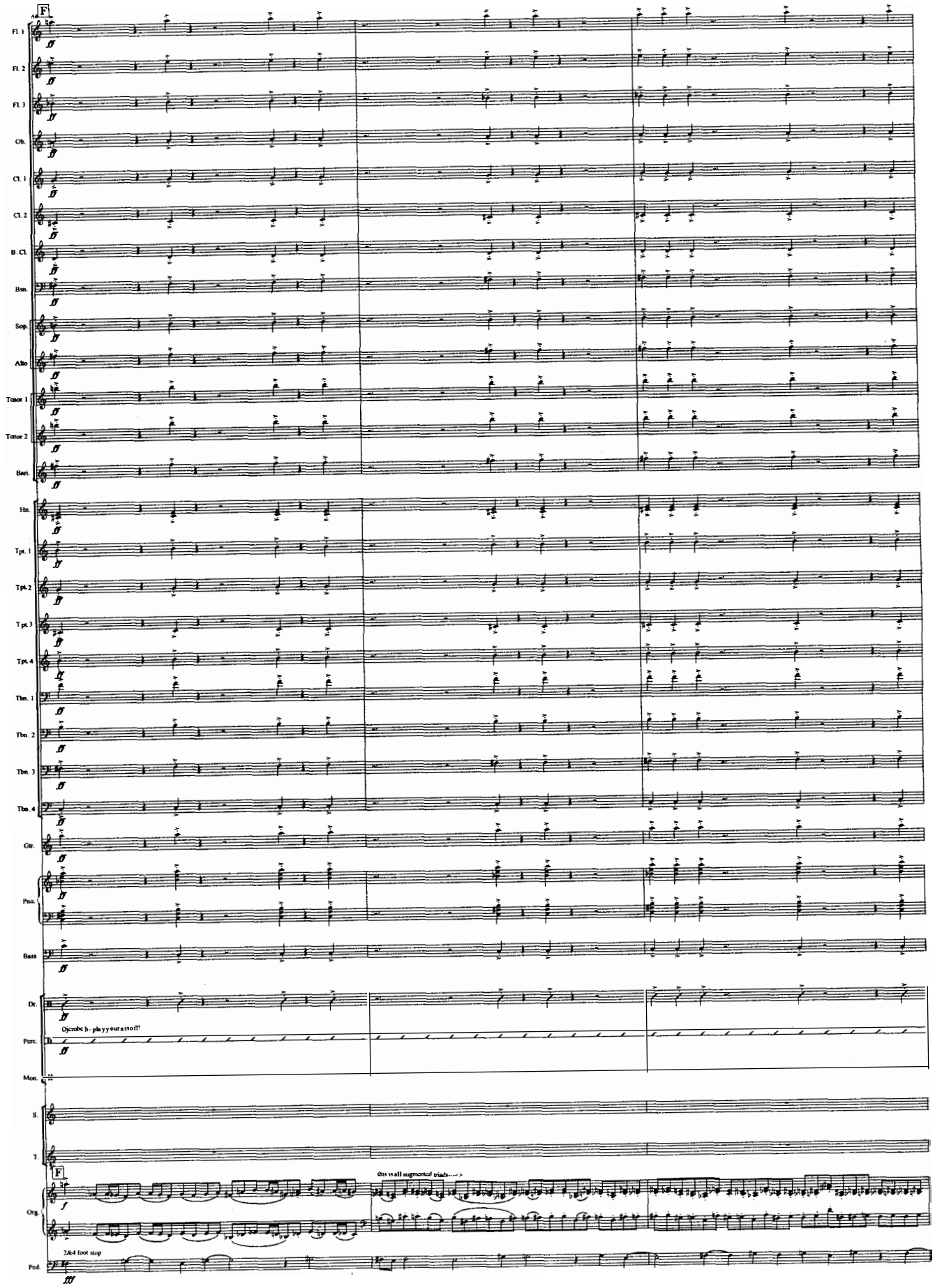

D
59
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.
straight mute in ---->
cup mute in ---->
cup mute in ---->
straight mute
cup mute - like an echo
cup mute - like an echo
muted
muted
fill
Wind Maker
SPOKEN CLEARLY OVER THE BAND
To see the world in a grain of sand, And a heaven in a wild flower.
Hold infinity in the palm of your hand, And eternity in an hour
Glissando up and down entire range
D

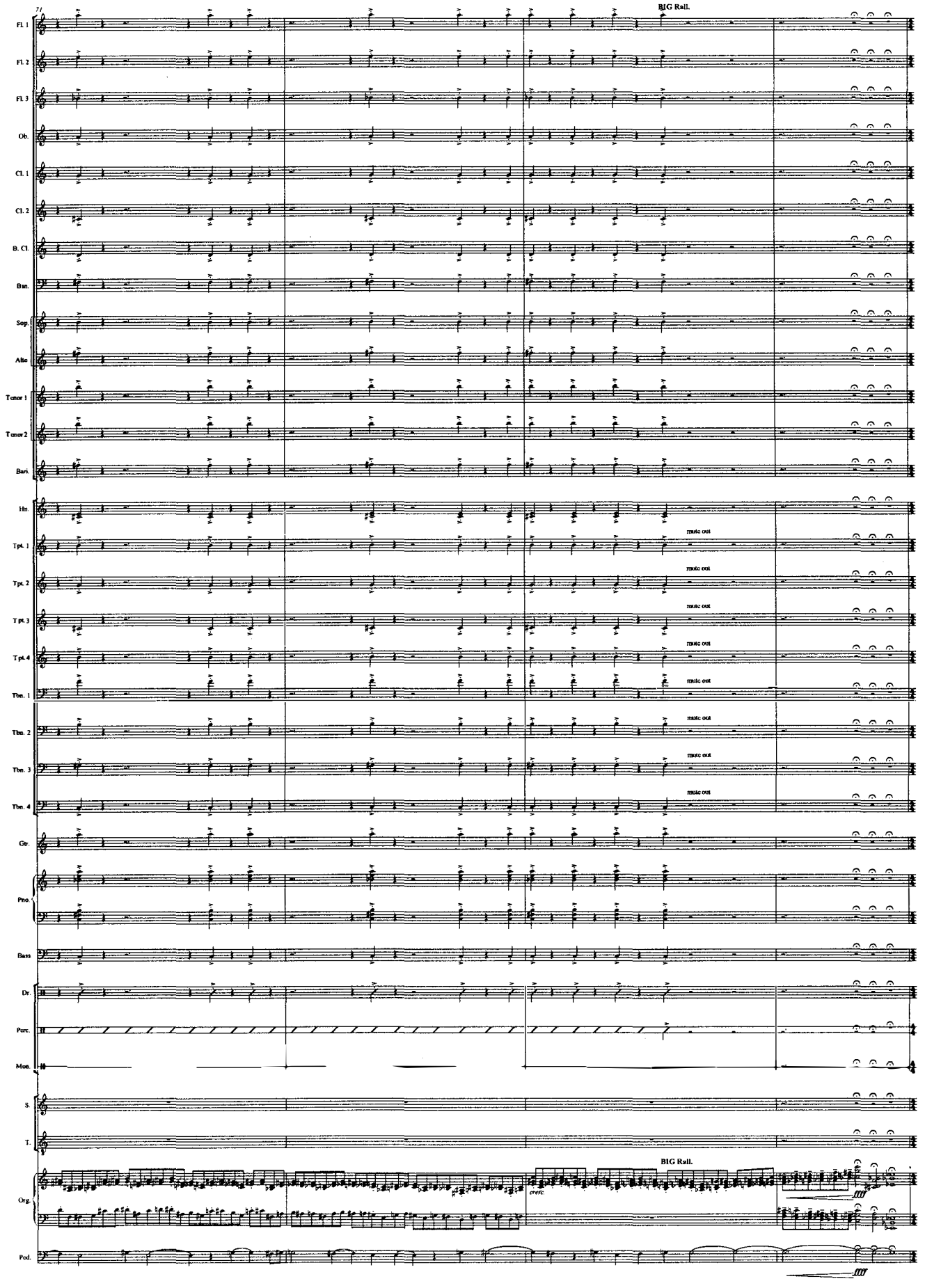

Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
like an echo
like an echo
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
cup mute
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.

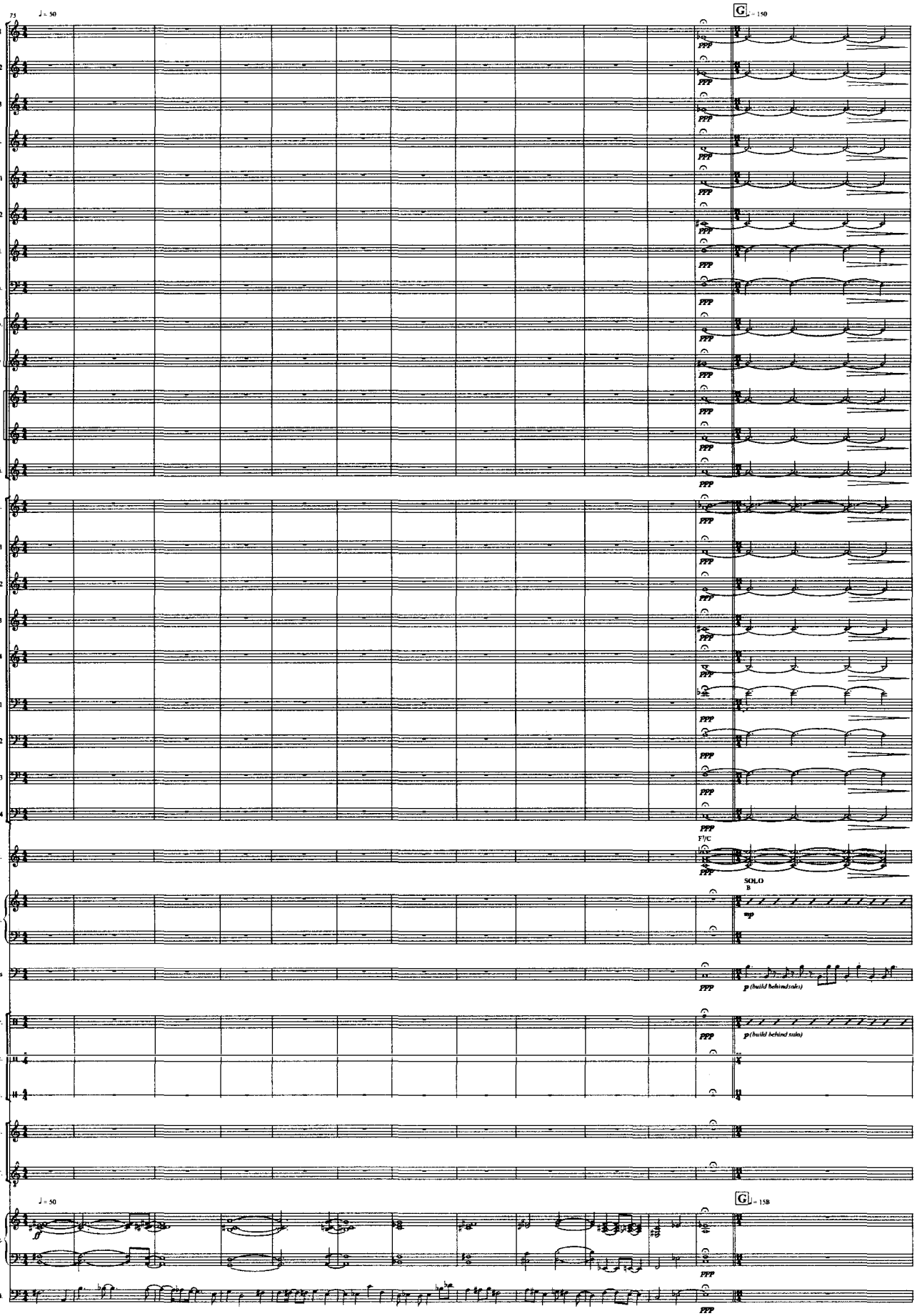

58
E
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Pcd.
cup mute
E

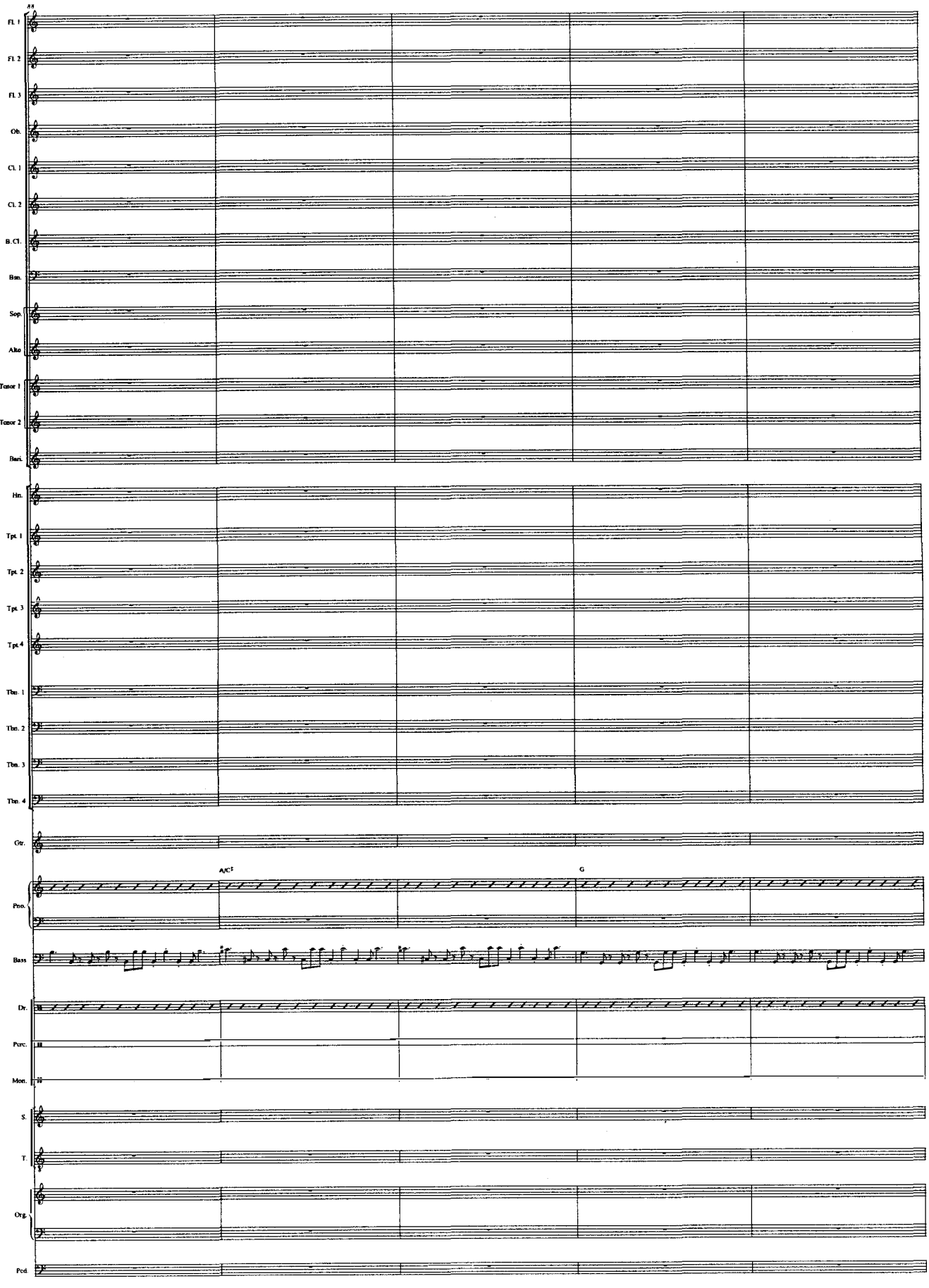

62
Fl. 1
Fl. 2
Fl. 3
Ob
Cl.
Cl. 2
B Cl
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt 2
Tpt 3
Tpt 4
Tbn.
Tbn 2
Tbn. 3
Tbn. 4
Gtr
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped

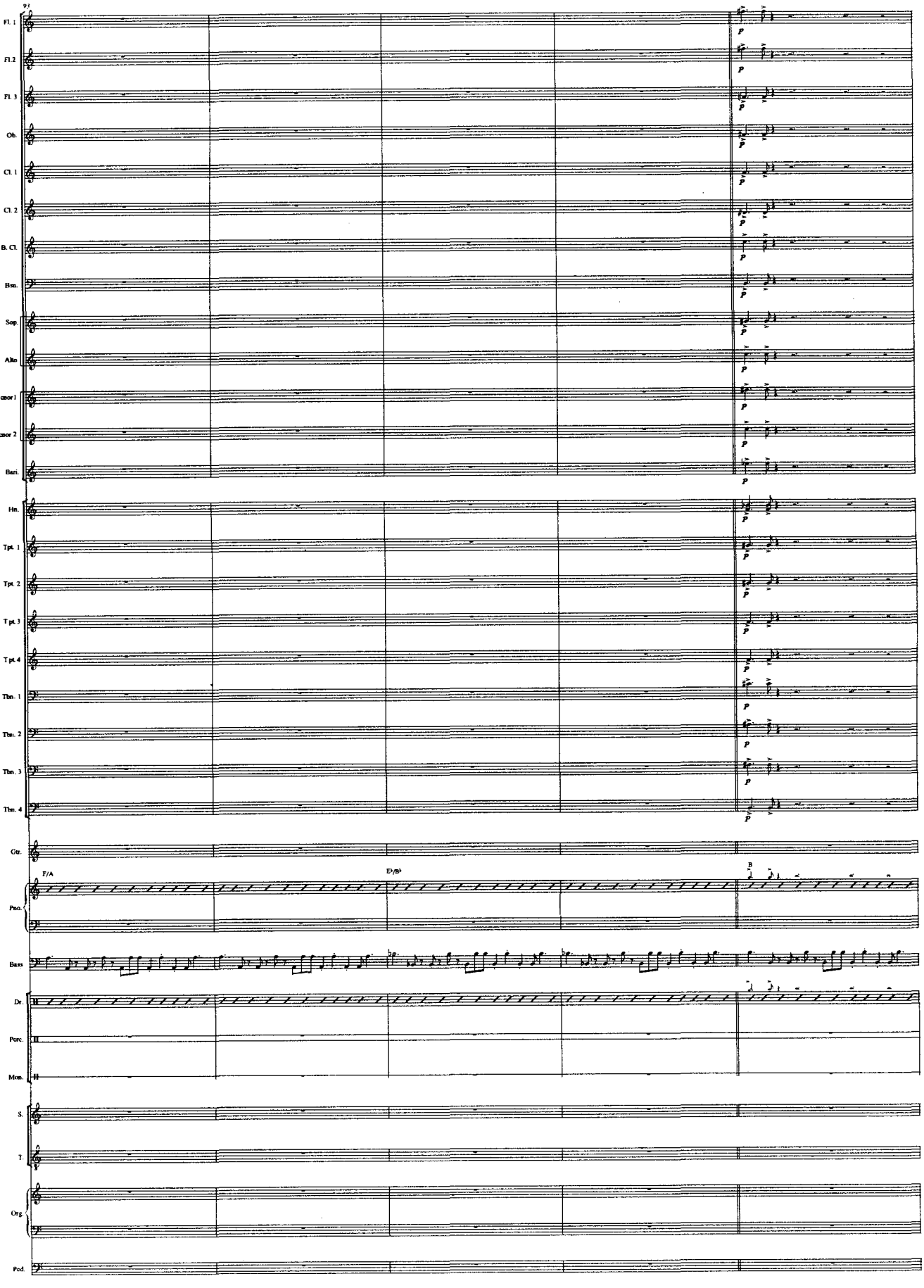

65
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mlts.
S.
T.
Pcd.
mp cresc.

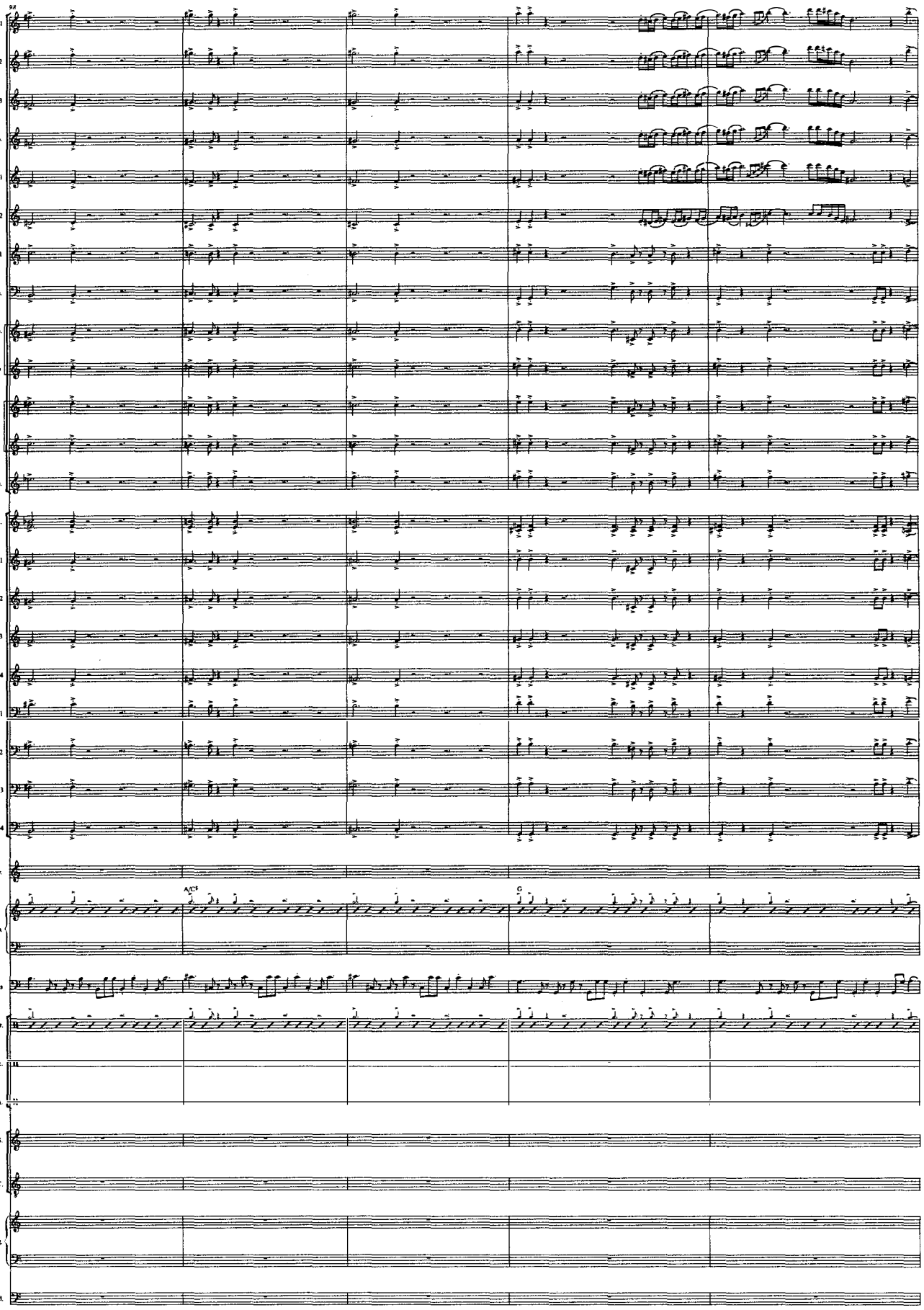

F
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt.2
Tpt.3
Tpt.4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn.4
Gtr.
Pno.
Bass
Dr.
Djembe h - play your ass off!
Perc.
Mon.
S.
T.
F
this is all augmented triads... - >
Org.
2&4 foot stop
Ped.

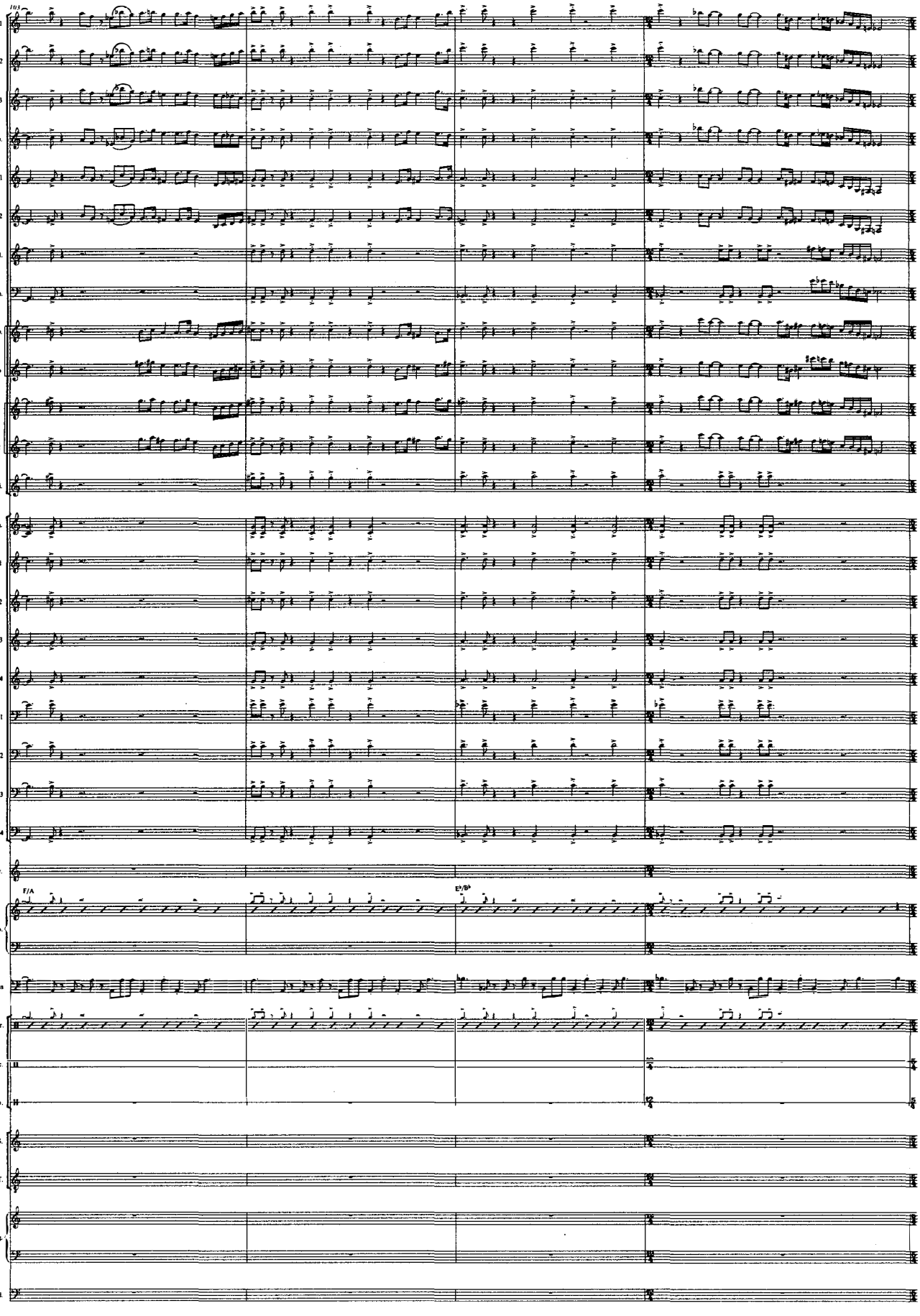

71
BIG Rall.
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.
mute out
cresc.
BIG Rall.
fff

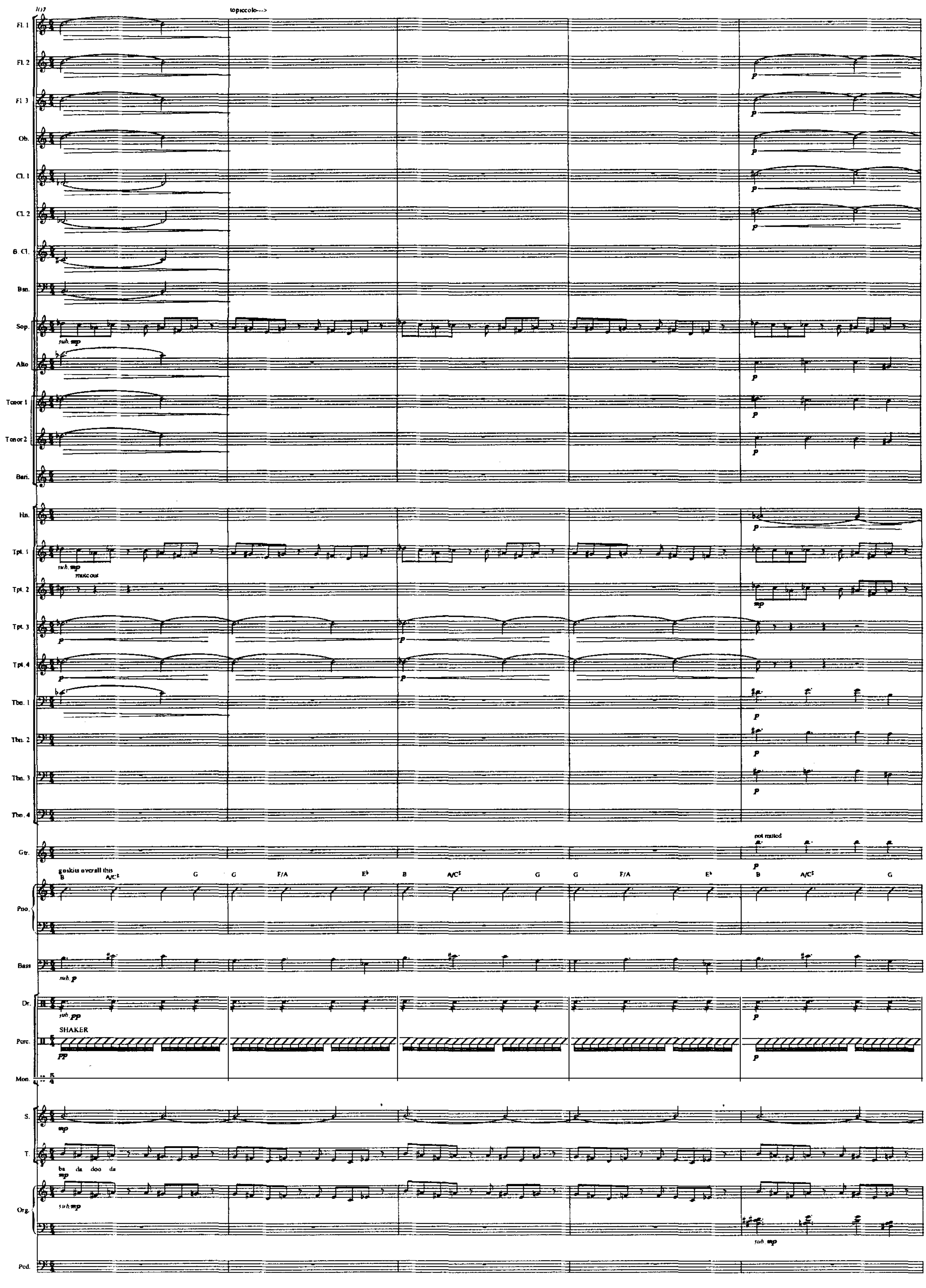

75
♩= 50
G ♩= 150
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
F7/C
SOLO
B
mp
Pno.
Bass
p (build behind solo)
Dr.
p (build behind solo)
Perc.
Mon.
S.
T.
♩= 50
G ♩= 158
Org.
Ped.
PPP

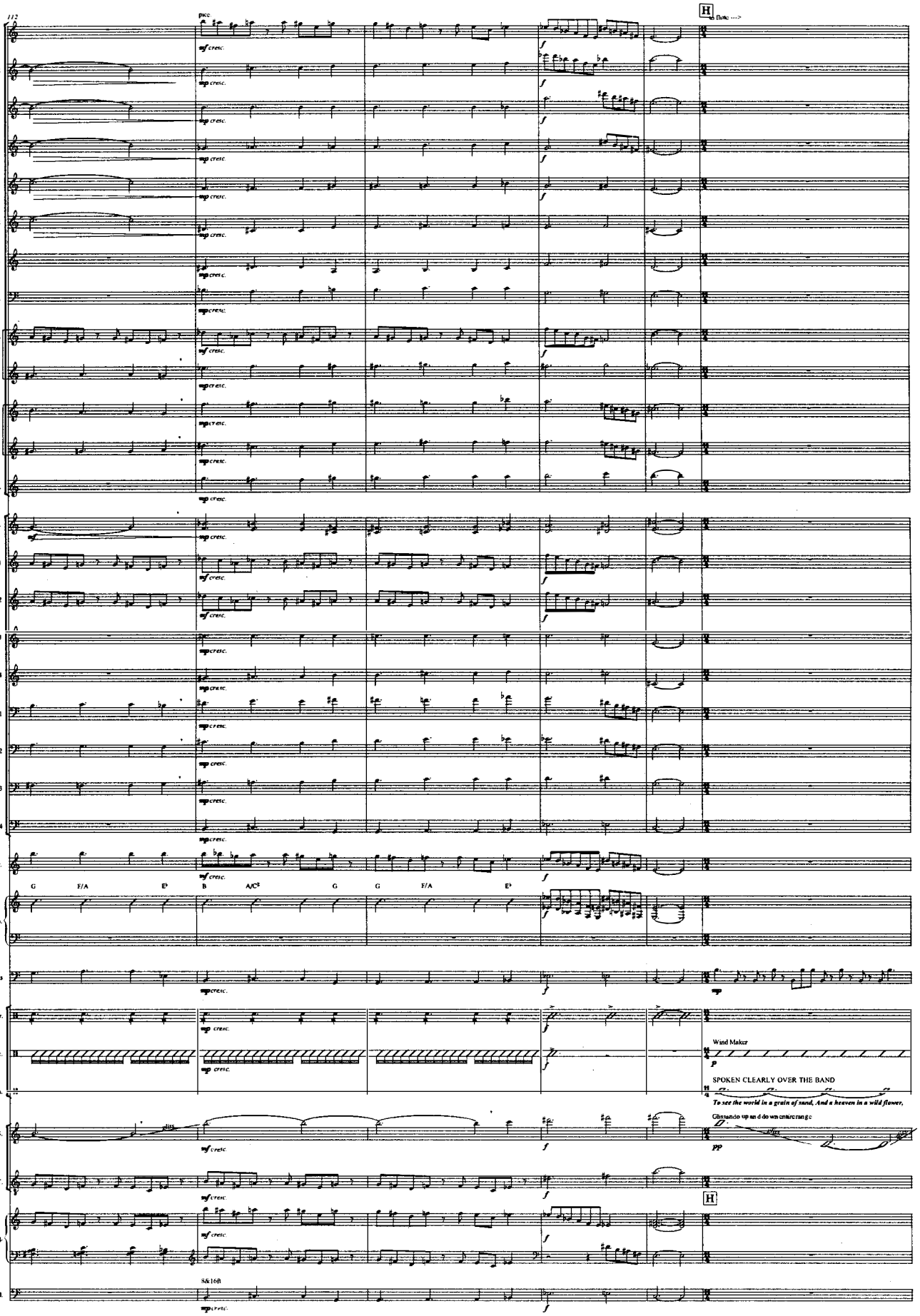

Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B.Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
A/C♯
G
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.

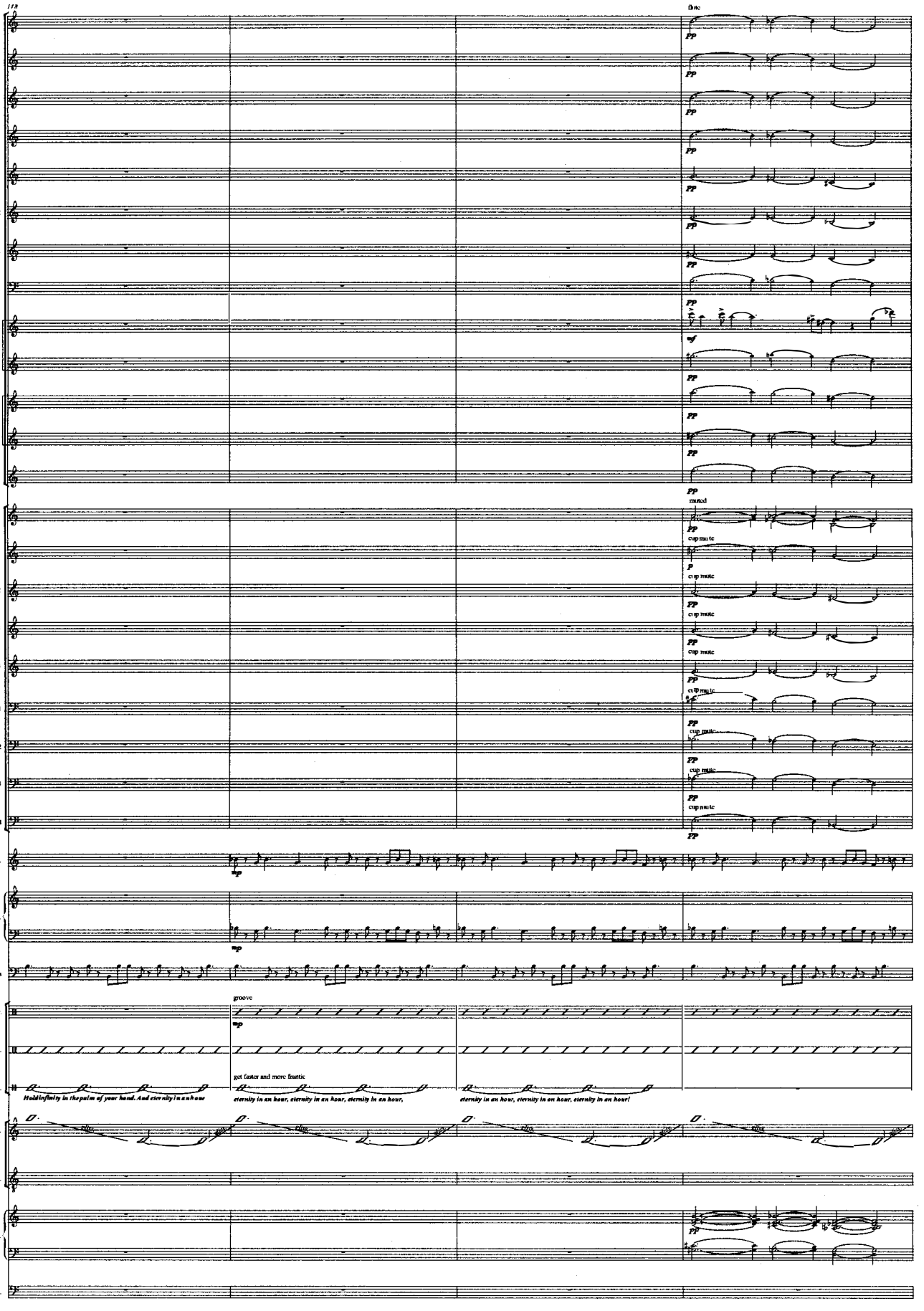

9
Fl. 1
Fl.2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
F/A
Eb/Bb
B
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.

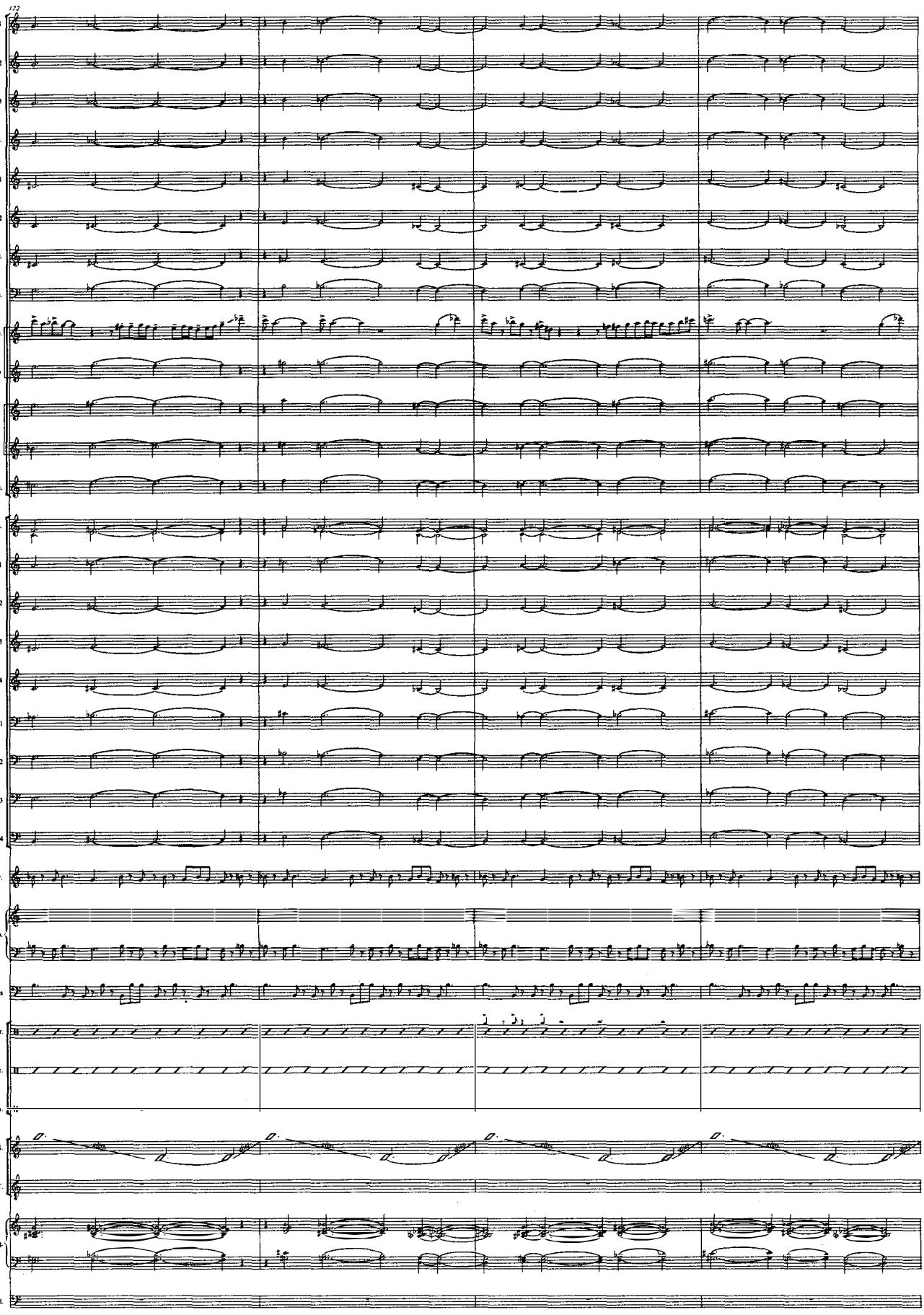

9X
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
A/C#
C
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.

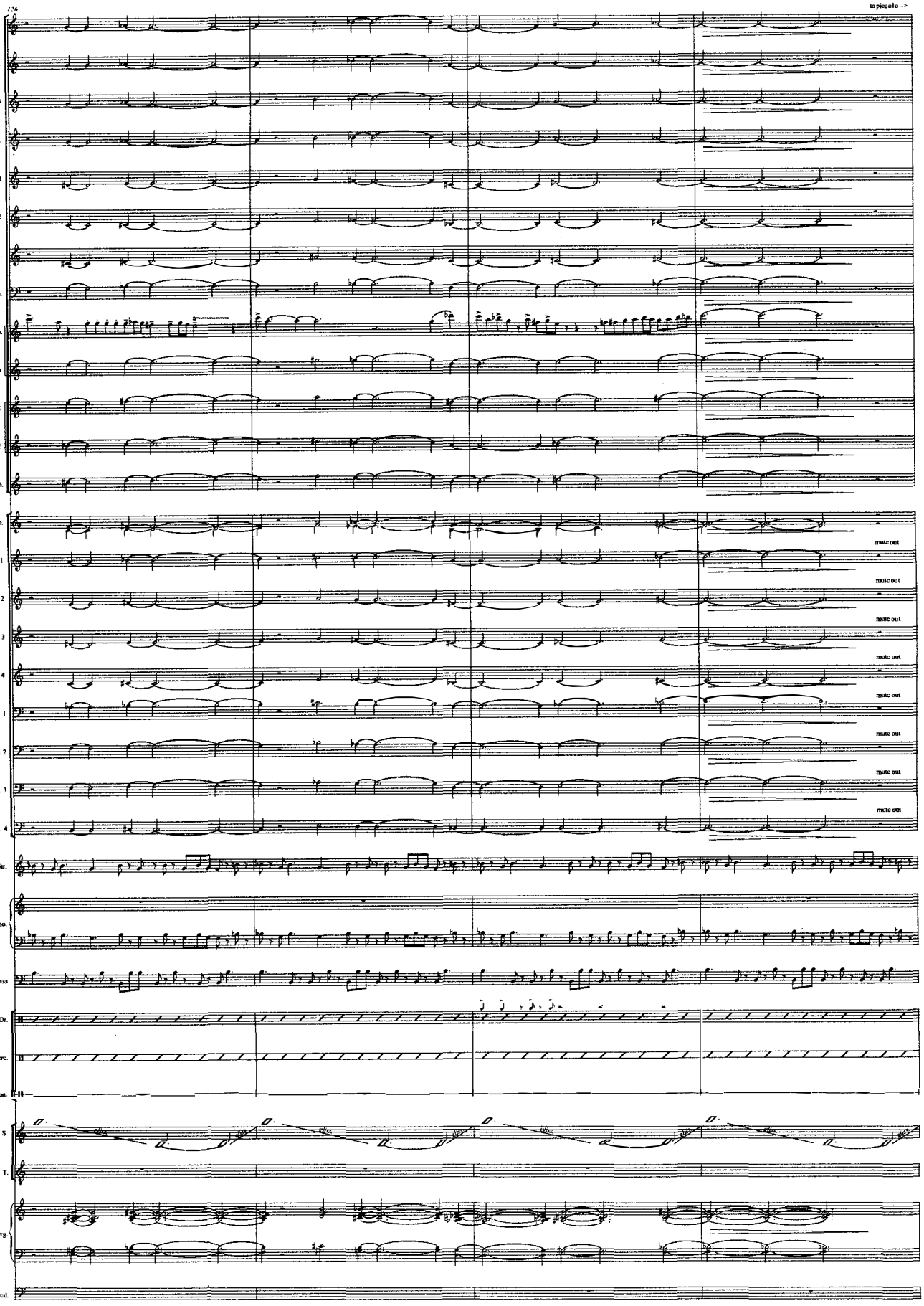

103
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
F/A
E♭/B♭
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.

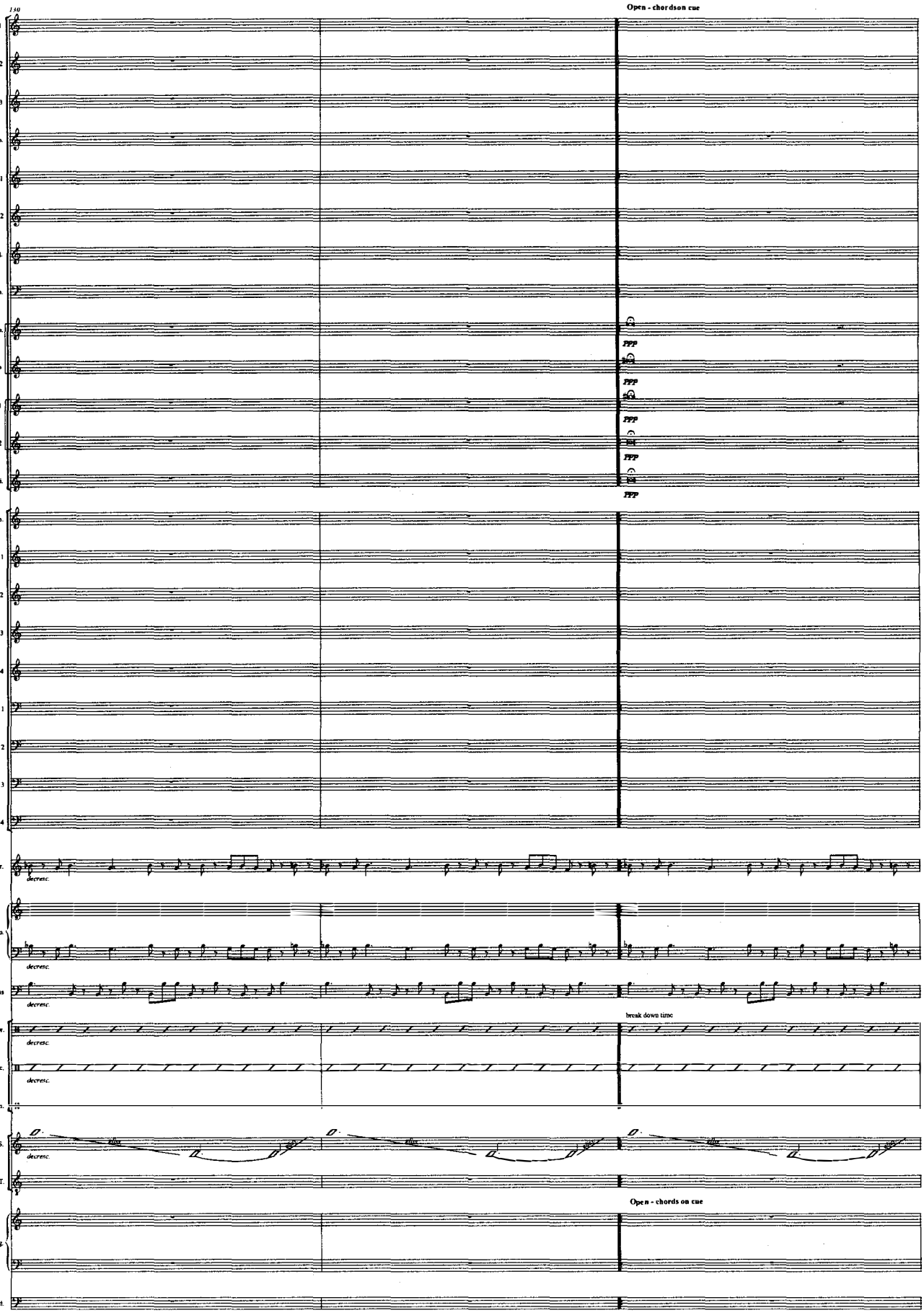

107
to piccolo--->
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.
mute out
not muted
B A/C♯ G G F/A E♭ B A/C♯ G G F/A E♭ B A/C♯ G
SHAKER
ba da doo da

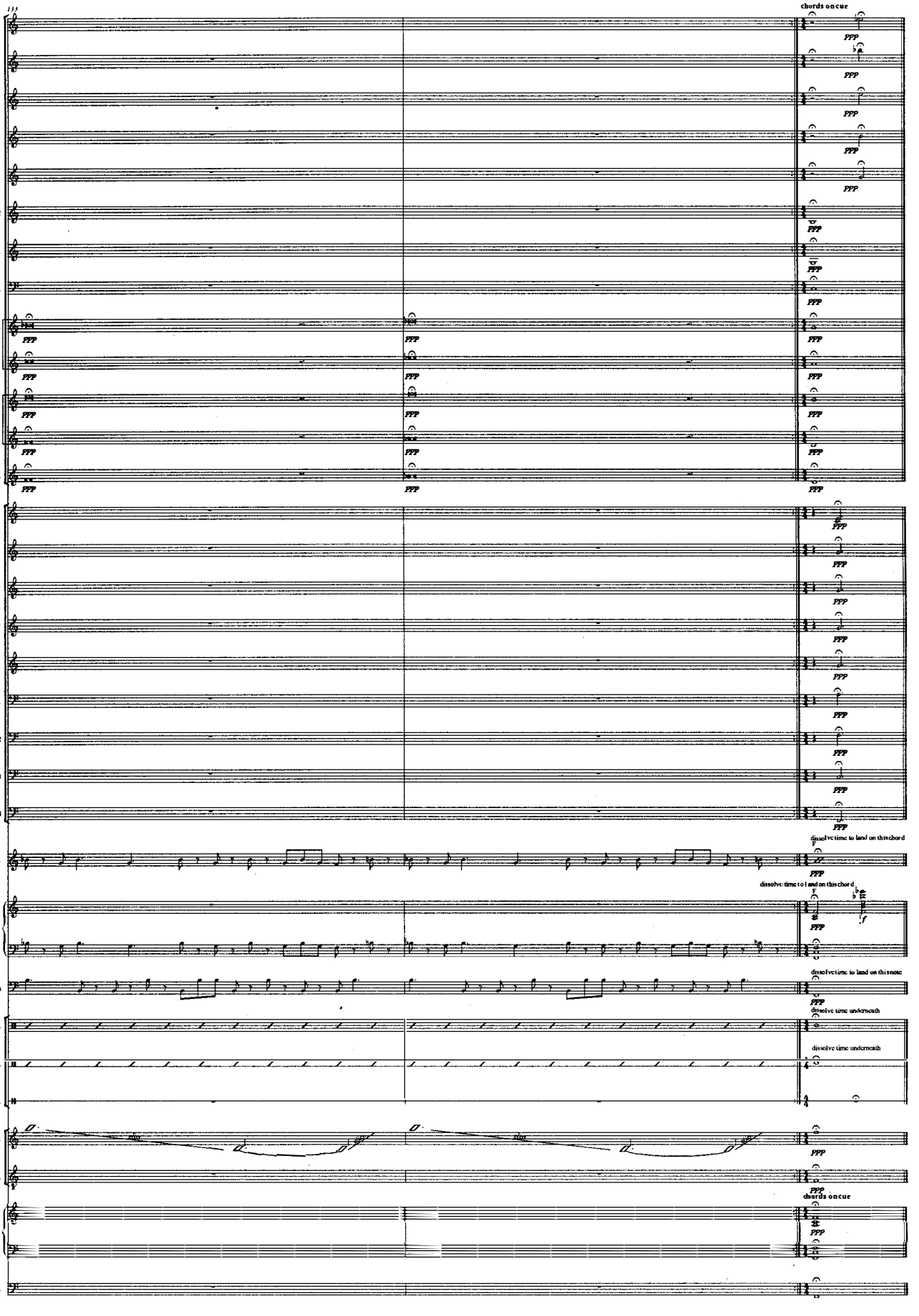

112
picc.
H
to flute: --->
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B.Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
G F/A E♭ B A/C♯ G G F/A E♭
Pno.
Bass
Dr.
Perc.
Mon.
Wind Maker
SPOKEN CLEARLY OVER THE BAND
To see the world in a grain of sand, And a heaven in a wild flower,
S.
Glissando up and down entire range
T.
H
Org.
8&16ft
Ped.


118
flute
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bass
muted
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
cup mute
Gtr.
Pno.
Bass
groove
Dr.
Perc.
Mon.
get faster and more frantic
Holdinfinity in thepalm of your hand. And eternity in anhour
eternity in an hour, eternity in an hour, eternity in an hour,
eternity in an hour, eternity in an hour, eternity in an hour!
S.
T.
Org.
Ped.


122
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.


126
to piccolo -->
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
mute out
Gtr.
Pno.
Bass
Dr.
Perc.
Mon.
S.
T.
Org.
Ped.


130
Open - chords on cue
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor I
Tenor 2
Bari.
PPP
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
decresc.
Pno.
decresc.
Bass
decresc.
break down time
Dr.
decresc.
Perc.
decresc.
Mon.
S.
decresc.
T.
Open - chords on cue
Org.
Ped.


133
chords on cue
Fl. 1
Fl. 2
Fl. 3
Ob.
Cl. 1
Cl. 2
B. Cl.
Bsn.
Sop.
Alto
Tenor 1
Tenor 2
Bari.
Hn.
Tpt. 1
Tpt. 2
Tpt. 3
Tpt. 4
Tbn. 1
Tbn. 2
Tbn. 3
Tbn. 4
Gtr.
dissolve time to land on this chord
Pno.
dissolve time to land on this chord
Bass
dissolve time to land on this note
Dr.
dissolve time underneath
Perc.
dissolve time underneath
Mon.
S.
T.
chords on cue
Org.
Ped.