CONFLUENCE

for piano and orchestra

Brian Ronald Sexton
Department of Music
McGill University, Montreal
November, 1988

A Thesis submitted to the Faculty of Graduate Studies and Research in partial fulfillment of the requirements for the degree of Master of Music

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ABSTRACT

This thesis consists of two main parts. The first part is the musical score of an original composition for piano and full orchestra entitled "Confluence". This is a single movement work of approximately thirteen minutes duration.

The second part is an essay containing a detailed aesthetic, conceptual and technical analysis of the musical work.

RÉSUMÉ

La présente thèse comporte deux grandes sections. "Confluence" constitue la première section, composition originale pour piano et grand orchestre; il s'agit d'une oeuvre en un mouvement d'une durée approximative de treize minutes.

La seconde section, sous forme d'essai, présente une analyse détaillée de cette oeuvre musicale, des points de vue esthétique, conceptuel et technique.

CONFLUENCE FOR PIANO AND ORCHESTRA

INTRODUCTION

"Confluence" is a bilingual French and English word (the French pronunciation is preferred) which means "flowing together". It was chosen to suggest a fluid amorphous entity, like a river, held together by some organizing principles or some common direction. The "river of sound" created by an orchestra, like a river of water, is not uniform but contains diverse and conflicting forces and materials; this piece focuses on the interplay of these diverse elements "flowing together". Accordingly, this composition contains much local detail and variety, as well as a core process which evolves organically from beginning to end.

One could say that music explores the nature of sensory perception; the ways in which sonic material and process form perceived structure. This composition, rather than expressing extra-musical ideas through music, uses extra-musical concepts - visual, dramatic and mathematical - to facilitate the organization of sound materials.

"Confluence" is the third of a series of musical essays considering the nature of the relationship between the "soloist" and "accompanying" ensemble from varying perspectives. The central relationship of this piece is that of the piano to the

orchestra - not so much of the soloist to the ensemble as of the piano as a smaller "unified orchestra" (with a wide range of registral, textural and dynamic variety) to the ensemble as a larger diverse orchestra (expanding and extending all aspects of the piano sonority).

The following chart delineates the grouping of the orchestral instruments in this piece and outlines the timbral relationships between the piano and each of the instrumental groups.

Instrumental Group	Timbral Comparison to Piano
1. mallet percussion	
a) glock, vibes, marimba	similar attack and generally decay.
b) xylophone	similar attack and similar timbre in upper register; differs because of extremely fast decay.
2. clarinets	similar large dynamic range and "moderate" timbre - neither very bright nor very mellow but colored by a few prominent harmonics - expecially in the "rich" mid-low register. The clarinet

sonority is sometimes used to dovetail with decaying piano tones and gradually mask them, seeming to reverse the natural decay of the individual piano sonority.

3. harp — similar attack, decay, large range, and ability to play large numbers of notes at one time, including clusters and glissandi.

4. strings — share sound of vibrating strings, large pitch range as a group, and large dynamic range. Non vibrato and thick textural effects emphasize similarity to piano.

5. brass — similar incisiveness of attack and brightness and fullness of chords in

		mid-low register at loud dynamics.
6.	other percussion and woodwinds (excluding malletophones and clarinets)	not closely related; used for contrast and support in heavily scored textures.

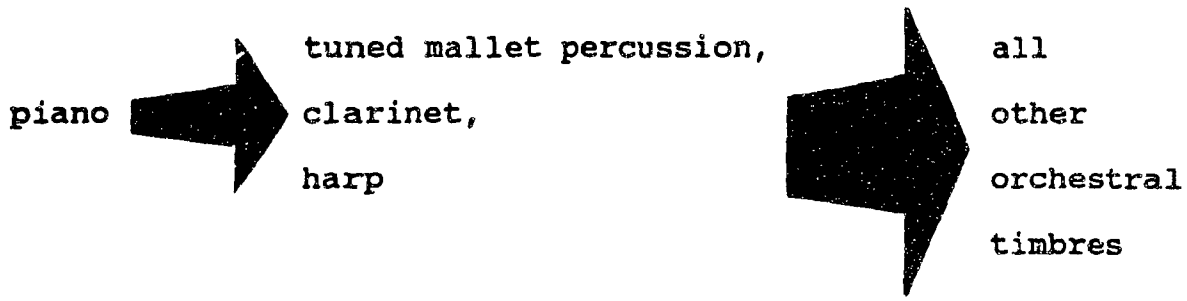
These timbral relationships determine the relative importance of the various instrumental groups and the ways in which they are used. Accordingly, there are two expansions of the standard medium-size orchestra: the percussion section is expanded to five players due to the frequent and complex use of malletophones, and the clarinets are treated as an individual section with four players - three playing standard B-flat clarinets, one playing the bass clarinet.

Timbre is used to mold and clarify texture and context by giving individual sound-characters to the various materials and relating these materials by timbral contrast, similarity and change. The use of timbre for intrinsic interest is secondary to this.

The degree of overtone richness of each timbre is considered in terms of its potential to add complexity and fullness to the texture by adding to such accoustic phenomena as sympathetic vibration and harmonic beating. These aspects of sound, along

with the variety of attack characteristics among the various instrumental timbres, are used to create and manipulate a wide variety of subtle and transient effects within the total musical texture, giving it timbral "depth".

PRIMARY TIMBRAL RELATIONSHIPS



GENERAL TIMBRAL PRINCIPLES AND PROCESSES

(a continuum from simplest to most complex)

1. Uniform, non-changing timbres - use of a single instrument or instrumental choir;
2. closely related timbres (such as oboe and harmon-muted trumpet);
3. contrast of two or more different timbres - simultaneously or sequentially;
4. change of timbre - gradually, quickly or instantaneously;
5. pointalistic timbres - very frequent and var d changes;
6. many different timbres simultanously within a complex texture.

LOCAL TIMBRAL EFFECTS

(adding local interest and textural depth)

1. Non-standard instruments: thundersheet, revolving plastic hose (which "whistles" a random harmonic series), metal wind chimes;
2. A few non-standard uses of standard instruments: timpani played with hard mallets; harp played exclusively "près de la table" with fingernails (the absence of a comparison with standard harp timbre suggests the use of a new, different instrument);
3. the unique (or extremely rare) very sudden and brief use of a single timbre;
4. "implosion": many different instrumental colors on one or a few pitches, usually in an extreme register; adds depth and intensity of sound due to the many conflicting and interacting tunings, overtones and vibrati;
5. "cushion": almost imperceptible doubling by a second timbre to slightly color predominant timbre; adds "warmth" and "body" to the sound;
6. "echo": a) notated "phasing", one instrument tracks another at a short time interval; b) the piano is used as a reverberation chamber, doubling other instruments very softly with the damper pedal down;
7. overtone interaction and reinforcement: wide spacing, use of several different pitches, timbres and registers, prominence of "open" intervals such as perfect fifths and fourths, and

moderately slow tempi contribute to this effect;

8. ambiguity of exact pitch and/or octave:
   a) melodic - scalar passages with octave expansion played extremely fast so that the ear has insufficient time to perceive how the melodic line jumps several octaves so quickly (see score pages 17 to 30);
   b) harmonic -- extreme registers with very wide spacing, combined with a variety of highly colored timbres (high partial content), obscure exact perception of register, of "separate notes" (upper notes tend to be perceived as partials of lower notes) and of "separate parts" (examples: pages 7 to 9, high percussion, piano and woodwinds).

TIMBRAL TREATMENT OF THE "SOLO" PIANO

1. Restriction of register to the very low ("rich, full") and/or the very high ("bright, percussive");
2. "transparency": spreading pitches sparsely throughout the entire range for greater resonance (without "thickness");
3. "thick" texture: clusters and large chords; close spacing and "dissonant" intervals; many conflicting harmonic partials; "harshness" of sound when combined

with percussive attacks and loud dynamics;

4. varied, changing, amorphous texture; a variety of articulation and dynamics (attacks and decays) over a short period of time, sometimes in conjunction with
5. continuous use of damper pedal to mix these materials fluidly.

CONTINUUM OF SIMPLICITY/COMPLEXITY

The "Primary Timbral Relationships" chart and the "General Timbral Principles and Processes" chart on page 5 above are examples of the organization of musical elements according to the general conceptual model. This organization has facilitated the integration of eclectic, diverse and sometimes conflicting ideas (technical, conceptual, dramatic, mathematical and philosophical) into a whole. Sound information varies along a continuum between two opposite poles, as delineated by the following:

SIMPLICITY/COMPLEXITY SCALE

Level 1 ——	Level 2 ——	Level 3 ——	Level 4 ——→	Level 5
extreme simplicity	simple order	moderate complexity	ambiguity	extreme complexity

This conceptual model also functions to describe activity or energy levels. It can be applied to more specific concepts, such as mathematical organization, predictability and focus:

MATHEMATICAL ORGANIZATION SCALE

1	2	3	4	5
uniformity	simple regularity; symmetry	logical change; evolution	irregularity; distortion; fragmentation	randomness

Mathematical organization is manifested primarily in two musical parameters: rhythm and pitch.

PREDICTABILITY SCALE

1	2	3	4	5
total predictability (p)	much p	moderate p	slight p	total unpredictability

FOCUS SCALE

1	2	3	4	5
obsessed	sharp-focused	clear but changing	blurred; ambiguous	unfocussed

The various complexity scales work in tandem - so they can be combined thus:

COMBINED CONTINUUM OF SIMPLICITY/COMPLEXITY

1	2	3	4	5
extreme simplicity	simple order	moderate complexity	ambiguity	extreme complexity
uniformity	simple regularity; symmetry	logical change; evolution	fragmentation; irregularity; distortion	randomness
total predict-ability (p)	much p	moderate p	slight p	total un-predict-ability
obsessed	sharp-focused	clear but changing	blurred; ambiguous	unfocussed

Musical material which lies near the middle point of this continuum is the most immediately perceivable and understandable sonic information as it avoids the monotony and boredom of under-stimulation at one extreme (Level 1) and the confusion and disorder of over-stimulation at the other extreme (Level 5).

The Simplicity/Complexity Continuum model, then, is useful in the following way:

> Most of the music most of the time is kept primarily within the middle level, and secondarily weaving in and out of the 2nd and 4th levels. The two extremes, levels 1 & 5, are used only occasionally and briefly for "relief" (resting the "mental-ear", allowing time for reflection and conjecture) for "surprise" or "shock" effect and for "contrast" to the predominant or current level. There may be variations in complexity levels between two (or more) layers of the total musical texture at any one given time. There may also be simultaneous differences of level and/or direction along the Simplicity/Complexity Continuum among the various musical elements; for example: rhythm may become simpler while timbres become more complex.

Since this music is primarily textural in concept - notwithstanding important structural, rhythmic and harmonic elements - the application of the Simplicity/Complexity Continuum

model to the textural design of the piece, as graphically outlined below, is of primary importance to understanding the work. The overall texture varies along the following:

CONTINUUM OF TEXTURAL DENSITY

Extreme simplicity; transparency → Maximum complexity; density

Level 1	Level 2	Level 3	Level 4	Level 5
Solo	Unison	Echo; heterophony; vertical sonority	Imitation; "separate parts"; multiple layers; timbral variety; harmonic "progression"	Unlimited use of any and all of the procedures outlined above
(1 part; 1 player; 1 sound)	(1 part; 2 or more players)			
	phasing			

ANALYTICAL OUTLINE

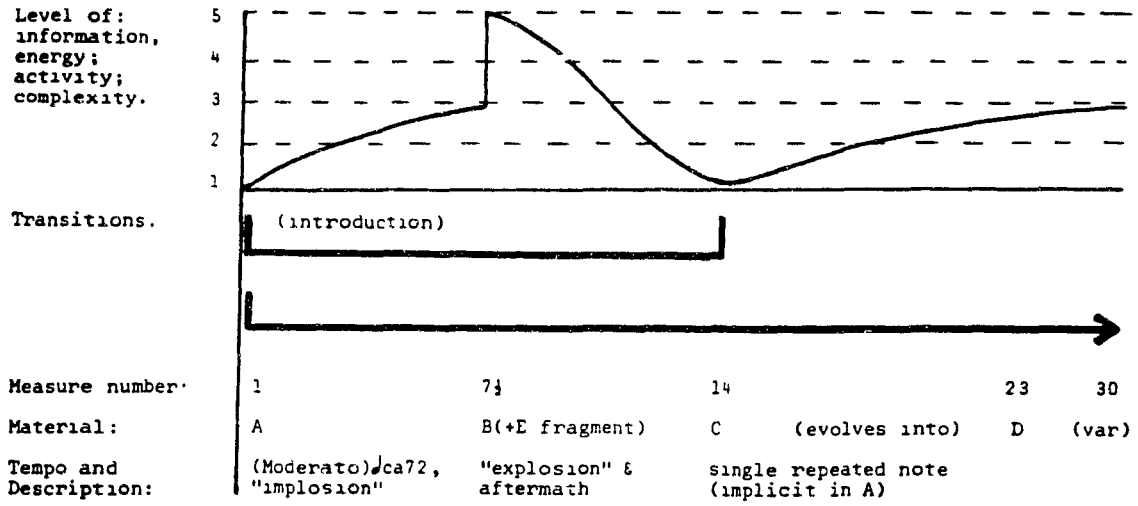
The introductory section sets in motion a basic set of tensions - between order and disorder; between stasis and movement - that motivates and energizes the piece. At the outset, a brief period of increasing static tension (m. 1-7) leads to a tremendous explosion (m. 7) briefly followed by slowly rising "shock waves", falling chunks of sonic "debris" and swirling clouds of settling "dust". This great outburst of energy rapidly dissipates, leaving the piano (m. 14) to gradually reconstruct the piece from the diverse compositional "rubble". This "reconstruction" begins at letter "A" (m. 14) with a simple repeated-note figure which grows gradually in rhythmic, then melodic, then harmonic interest. This process continues with ever-increasing timbral and textural variety and complexity, until it is interrupted by a new type of material: a "fast section" beginning at rehearsal letter "F" (m. 80).

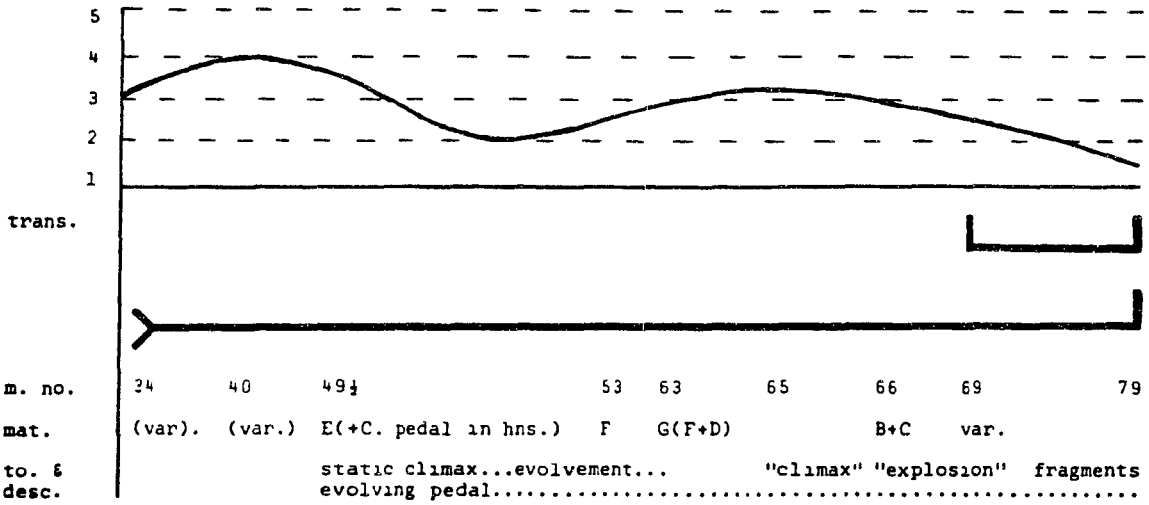
This new section may be considered a diversion: a very high-energy musical interlude dropped into the flowing stream of sound. It is a lighthearted interjection into a process that may otherwise have become too unidirectional and predictable. It is also a playful and whimsical response to the inevitable expectation of virtuosity which a piece for piano and orchestra - even if not specifically titled a "concerto" - evokes. This format allows virtuosic passages and loud rambunctiousness while (hopefully) avoiding bombast and pretention.

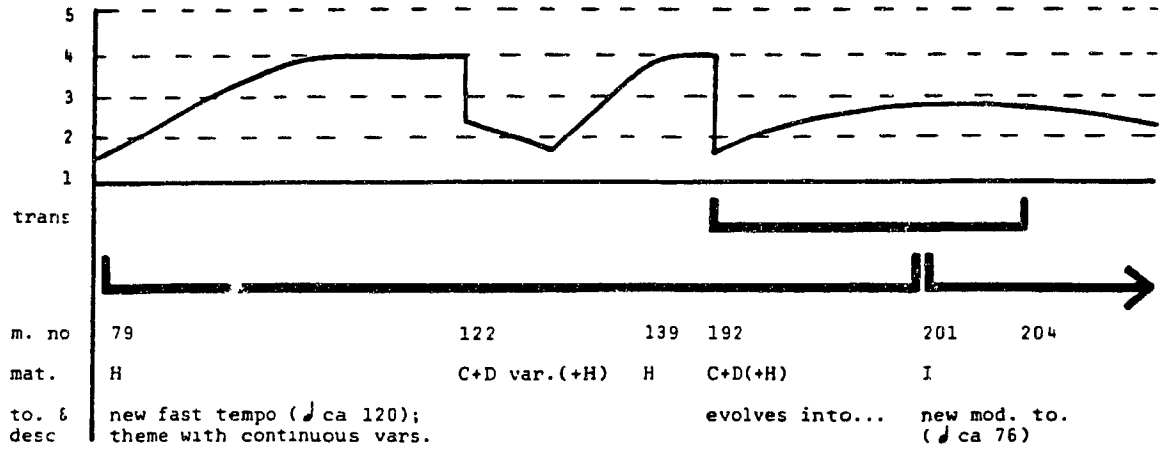
Gradually, (from m. 198) the music resumes a process of evolution similar to that of the first large ("slow") section with a gradual decrease in rhythmic intensity and definition and a general slowing of tempo. The distinctions among the various instrumental timbres are gradually blurred, then eradicated, leading to unity of piano and orchestra. This process constitutes the third, and final, large section. The short coda consists of a brief restatement of the explosion motif (m. 298) by certain orchestral factions - as if to say "Let's do it again". This is answered very quietly by the piano: "No, it's finished", and the music drifts out of hearing range...

Since the materials of this piece progress from the simple to the complex and because these materials are often juxtaposed, combined and continuously varied (not to mention brief foreshadowings and interjections), it has been necessary at times to consider clarity and convenience, and to use personal judgement in distinguishing and labeling the "separate" materials and sections in the following "Graph of Formal Sections":

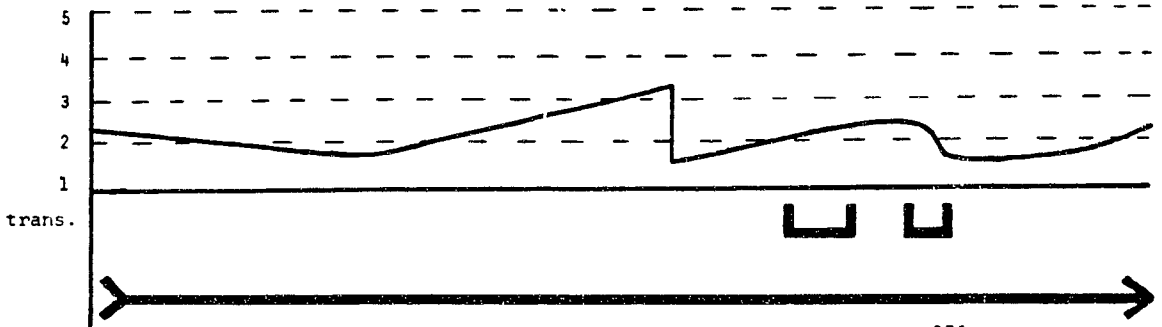
GRAPH OF FORMAL SECTIONS



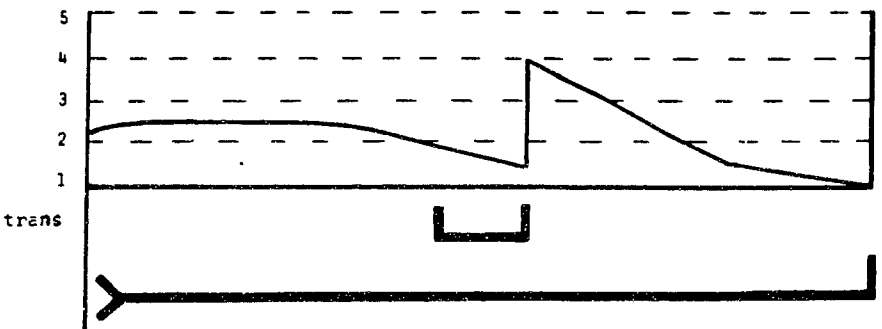




m. no	79	122	139	192	201	204
mat.	H	C+D var.(+H)	H	C+D(+H)	I	
to. & desc	new fast tempo (♩ ca 120); theme with continuous vars.			evolves into...	new mod. to. (♩ ca 76)	



m. no.	228	242	257	263	271
mat.	J	K	L	M	N
to. & desc.	metamorphosis of H ("chorale")	group of vars. of H accel.	(½ tempo) slow (♩=60)	♩=76	transitional, introductory, becomes...



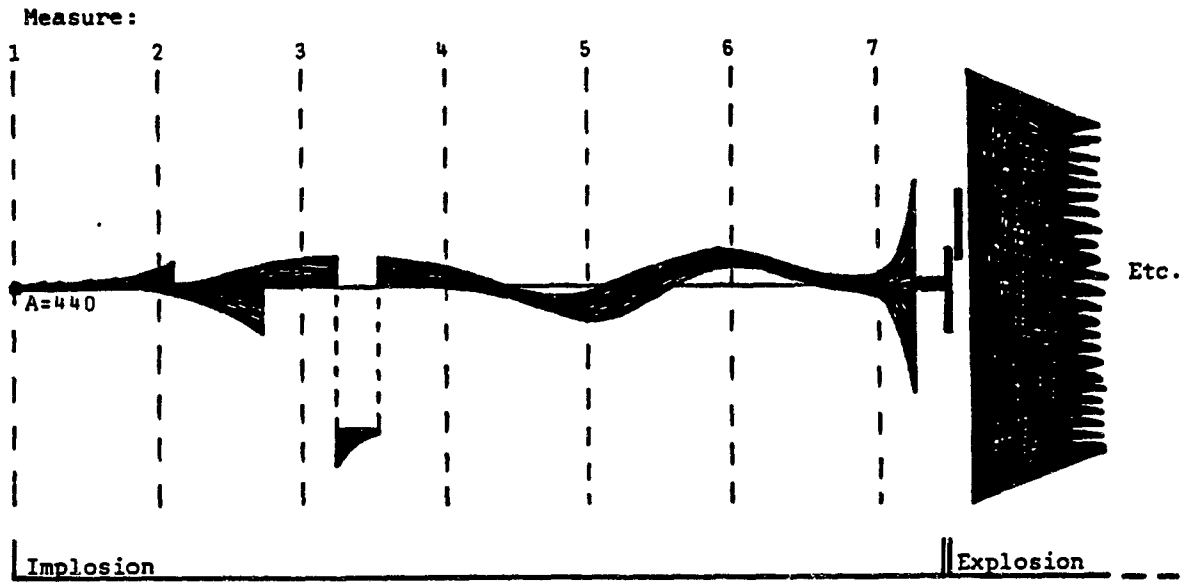
m. no	284	288½	292½	296	298	299	301
mat.	O	M var.	var.	C	B	C var.	
to. & desc.	"chorale"				simplified, abbrev.		fade to end

SELECTIVE, DETAILED ANALYSIS OF INDIVIDUAL SECTIONS

The introduction (m. 1-13) consists of two sound-mass gestures. It is quite different in style from most of the rest of the piece, although it provides dramatic (energizing) motivation and contains implicitly many of the basic gestures and the rhythmic and melodic motives to be delineated and developed later.

The first gesture is a build-up of static tension, as evolving clusters push and pull away from the constant repeated note: A = 440 (the "tuning" note, of course) first stated by the "solo" piano. The stream of sound pulls away from this note both downward and upward, then is pulled back to the centre at the end of m. 6, and after a final, desperate, unsuccessful stretching of the texture (m. 7), the tension is broken by the explosion initiated by the piano. Thus the soloist exerts a primary dramatic and structural influence on the course of the piece.

PROPORTIONAL DIAGRAM OF THE INITIAL "IMPLOSION"



The orchestration brightens and thickens up to the explosive climax, m. 7, after which the musical texture divides into three layers:

1) an harmonically static but multi-rhythmic "screen" of four minor ninths (semitone cluster expansion) in the middle-to-high registers, played by the piano, harp, and malletophones; (a "screen" is a static sound-mass which is transparent due to its relatively few pitches separated by wide pitch intervals).

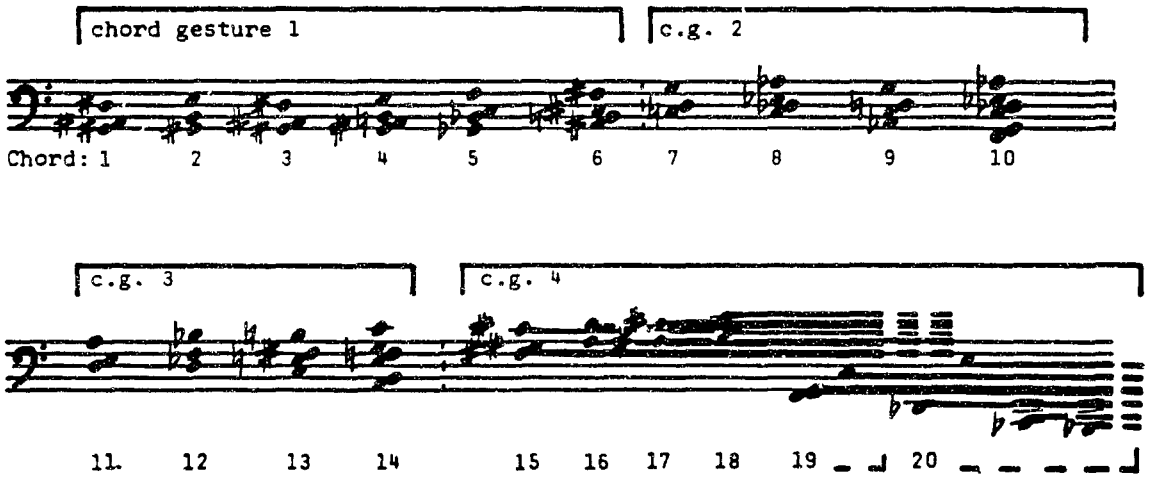
2) two streams of string glissandi undulating downward from the very high to the mid-low registers, thickening, then fading

(additional textural interest is added to this material by the unpitched jeté "sound-mass" material in the low strings, and the windy, whistling effect of the rotated plastic hose in Perc. III;)

3) chordal material in the brass and piano in two gestures - the first emerges from the "explosion" in m. 7, falling in pitch and dynamic level, then rising to a secondary climax on the fourth sixteenth-note of m. 9 - the second continues from the first as a slowly rising "tidal wave" which expands and contracts, becoming a loud, thick cluster in m. 12 before slowly fading out.

This "tidal wave" of chords in a clear and concise example of the harmonic materials and methods used throughout much of this piece:

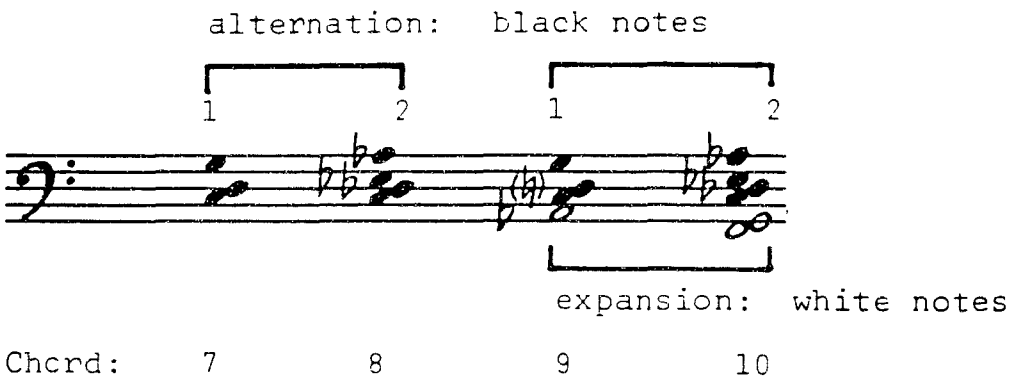
(at m. 9)



This total gesture consists of four modified and transposed statements of a simple chordal material first manifested in chords 1 to 6. They are linked together by a "top-line" spiralling upward chromatically, with the occasional downward semitone movement in the first half of the gesture (at chords 3 and 9).

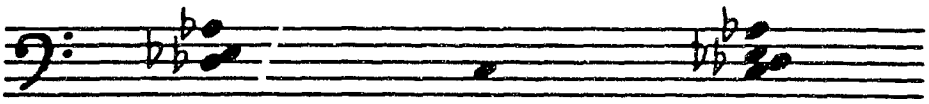
The basic harmonic materials are stated in chords 1 and 2 above: Chord 1 is a quartal chord - major second plus perfect fourth - and chord 2 is a major $\frac{6}{3}$ chord. The interest of this material is the close relationship between two materials from "different" pitch systems; this relationship is manifested in the sharing of pitches and intervals, in close voice-leading, and by the simple alternation of two chords back and forth.

The basic principle of chord movement, <u>alternation with expansion</u>, is illustrated by chords 7 to 10 thus:



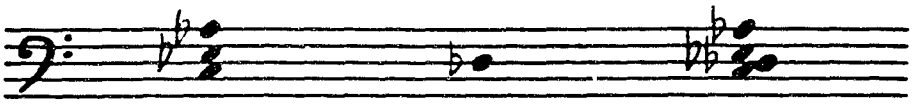
Chord 8 (as well as 4, 6 and 12) are formed by interlocking the two basic chords thus:

basic chord 1 + added tone = chord 8, etc.
(transposed)



also:

basic chord 2 + added tone = chord 8, etc.

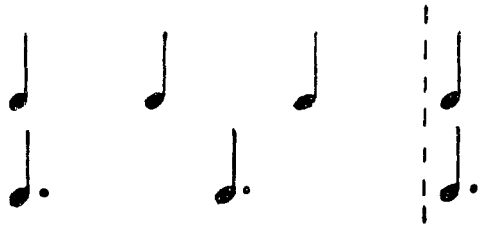


Chord 8 (etc.), which is also a major $\frac{6}{3}$ chord with an added perfect fourth, becomes an important "signature-chord" towards the end of the piece.

In chord 9 (as well as 5 and 13) the particular added-tone is chosen because it adds the characteristic intervals of a major third, a tritone, and a major seventh to the harmonic texture. It is also part of the fanning-out process between chords 7 to 10. Chords 10 and 14 are constructed by stacking two transpositions of chord 1 at the interval of a minor sixth so as to include chords 2 and 4.

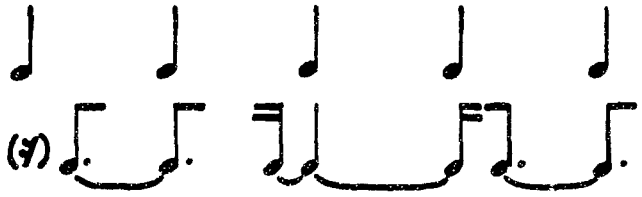
The preceding and following examples illustrate the constantly applied principle of this work: analysis and exploration of very simple materials and concentration on the basic relationships between them. The use of these materials is both systematic and intuitive, as will be explained in greater detail on page 28 below.

At m. 14 the after-effects of the "explosion" are dying away, leaving the piano to "reconstruct" the music starting from the simpest of musical ideas: one pitch (B natural) and one rhythmic unit (the reiterated quarter-note) gradually emerging from the fading tone-cluster. This single tone is joined by a repeated B flat, which by its third reiteration has become another unitary metric layer with a ratio of 2:3 to the original B natural:



etc.

The new "beat", however, is displaced one sixteenth-note thus:



etc.

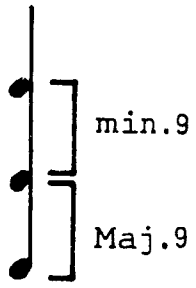
This pattern continues with irregularities and distortions including a notated tempo change and brief impressionistic "dabs" of material suggestive of the previous "explosion" motif. Added

to this are brief melodic lines of sevenths and ninths and scalar material of the simplest kind - the first five degrees of the major scale - presented as "out-of-tune" lines of parallel minor ninths (some with octave displacement at m. 20). This material is presented in a repetitive, gradually accelerating melodic line (almost as if the pianist were learning how to play!)

From m. 23 there is the suggestion that the pianist is attempting to fashion a "traditional melody" from the simple scalar line by adding an "alto voice" in parallel thirds and some variations in pitches, dynamics and rhythm. Since the material is so minimal, tentative and "non-functional" (but containing "diatonic" references), the listener cannot quite distinguish any major or minor "key" (nor any modal nor whole-tone "scale") despite the brief allusions to these structures and a tenuous perception of two layers of "tonality".

At m. 30 the previous material is expanded into two layers using the registral extremes. The upper layer continues the scalar theme in parallel minor tenths with rhythmic heterophony. The lower level is simple, mostly sustained, material moving in parallel perfect fifths. Mm. 34-40 consist of two "cartwheeling" interlocking lines of minor sixths, major thirds and major tenths, suggesting interlocking (different) major chords in rhythmically displaced parallel movement.

At m. 40 the upper layer expands into three parallel lines. The rhythmic heterophony between them becomes more pronounced and varied, sometimes with repeated-notes forming complex arpeggiations. The notes always outline the first three degrees of the minor mode with octave expansion:



Percussive timbres were used for their bell-like quality: hard attacks, richness of overtones (which help unify the layer in spite of the distance between the voices) and natural decay (which adds clarity and variety to the textures). The lower layer is principally two interlocking sets of parallel perfect fifths (twelfths) which are a tritone apart. The chords are exchanged by dynamic modulation: as one set fades-in, the other fades-out. The fifths are interspersed with minor sixths (inverted major thirds) to continue the continual contrast of "major" and "open" sounding vertical sonorities. The loud, accented open twelfths moving in parallel at the beginning of each evolving harmonic unit add structural clarity and textural richness to this passage. The interchange of instrumental timbres coordinated with the exchange of dynamics is an integral element of the total effect.

At m. 49 the previous material expands into a harmonically static, multi-rhythmic "screen" (defined on page 17, above). The

total texture of this example consists mainly of two complex elements:

I. three two-part proportionally related layers:
   1) flute and trumpet,
   2) glock and marimba, and
   3) piano (one part per hand);

II. fast arpeggios, irregular but gradually getting slower, softer and melodically thinner due to the (more or less) methodical replacement of some notes by rests (filtering):
   1) xylophone and temple blocks,
   2) harp, and
   3) chimes.

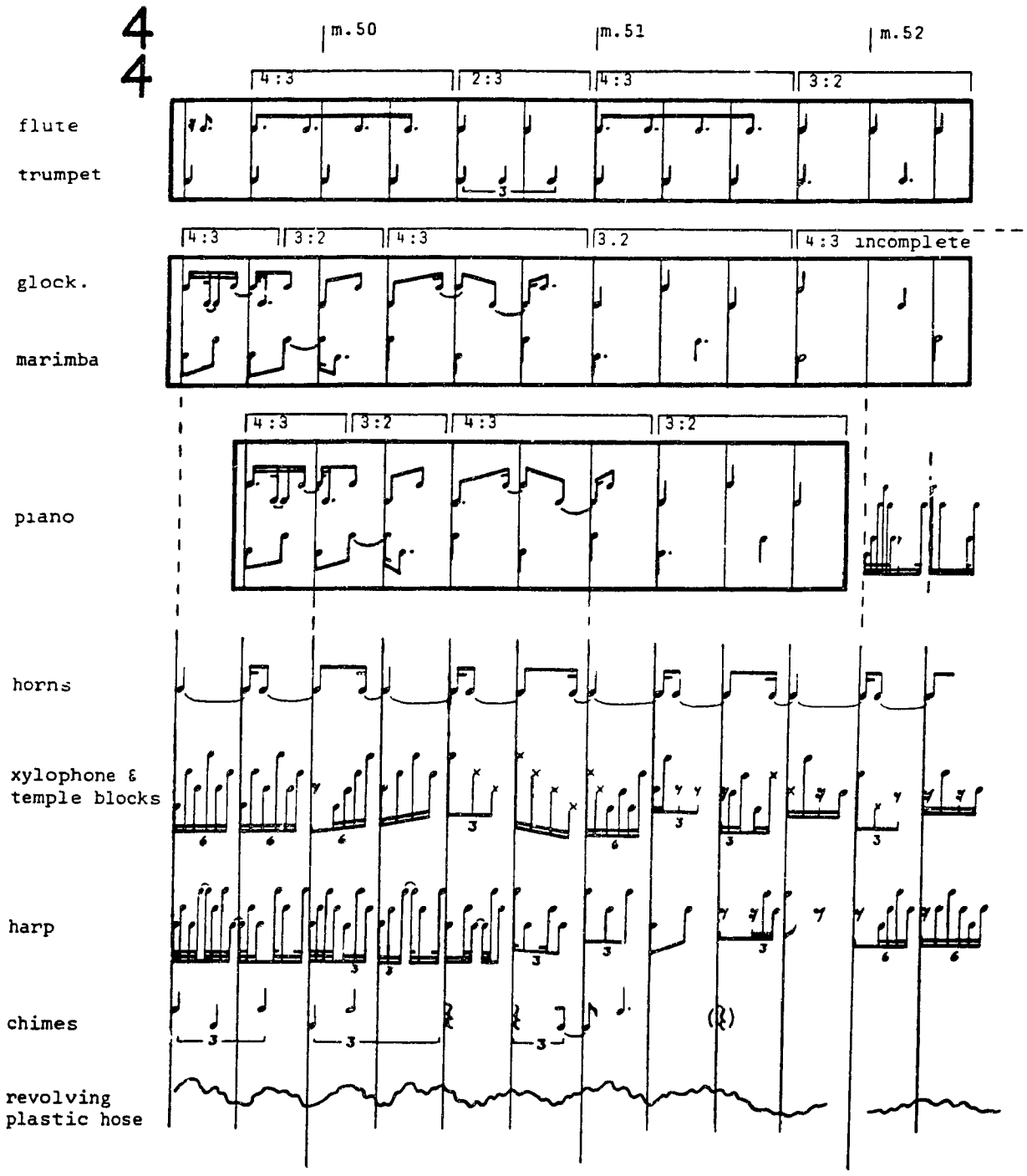
Supporting these rhythmic elements are the following sustained elements:

I. a continuous rhythmic unison pedal in three alternating horn timbres, open, muted and stopped (on G, middle register);

II. a three-note "open fifth" chord, in the strings, trombone, piano, bassoon and timpanum, which is obscured at first by an underlying open fifth diad (at the relation of a tritone) in the extreme low register of the piano;

III. an evolving, whistling sound produced by swinging a plastic hose around in circles.

Here is a graphic outline of this multi-rhythmic texture:



The three two-part proportionally related layers are enclosed in rectangles in the graph above. The rhythmic ratios (of upper part to lower) are shown in braces above the "blocks".

Each "line" is restricted to two widely spaced, alternating pitches (at the interval of a ninth). This promotes some clarity of individual line despite shared pitches and overall rhythmic complexity. Also, a melodic unit of two notes, "up-down", (melodic rhythm) overlaid upon metric units of three and two adds another aspect of rhythmic interest.

The alternating tones of the flute and trumpet form the first metric layer. Its simple by-metric pattern is readily perceived from the above graph.

The second (glock and marimba) and third (piano) layers are more intricately structured, and are identical except for the abbreviation of the third layer. Thus, the third layer imitates the second, one "beat" later. Of course, the "beat" is merely a notational convenience; it cannot be aurally perceived in such a complex context. The structural features of each layer include:

1) ratios of 4:3 consistently alternating with ratios of 3:2 (upper part to lower);
2) gradual deceleration occurs as the slower rhythmic unit (lower line) becomes the faster rhythmic unit (upper line) in each succeeding metric group.

In these ways, the concepts of consistent bi-metric layering and gradual written rallentando are integrated. The total effect of this passage, when the other, rhythmically irregular ("intuitive"), layers are added, is that of a (written-out) rallentando within a rhythmically complex texture.

The preceding and following analyzed passages are good examples of the general compositional method used in this piece: the intuitive use of systematized materials. These materials are usually quite simple in essence: the simple directional form described above; the harmonic materials - the open chord, the minor chord, the "major chord with added fourth"; the methods of harmonic movement - parallelism (exact or altered), "traditional voice-leading" (keeping common tone, moving to nearest tone of new chord, passing tones, etc.), overlapping or "pyramiding" chords, reverberation (tracking a passage very softly with the piano with damper pedal down); and the rhythmic concepts - simple regular movement, delay, anticipation, written-out accelerandi and ralentandi.

The intuitive use of these materials includes: deciding when and how to change from one type of material to another; analyzing and utilizing the subtle relationships between the material to intertwine them into a unified fabric; sensing when an idea going in one direction (such as the 9/8 passage, mm. 63 to 65) becomes predictable and judging the appropriate kind and amount of change. Most importantly, this thought process is improvizational, whether

at the keyboard or away from it: the constant mental switching and balancing from system to sound gives the music a kind of organic logic and consistency that encompasses freedom and spontaneity.

Here are four detailed examples of this process, from the passage between m. 55 and m. 78:

1) in m. 55 the parallel open $\frac{9}{5}$ chords played in the low register in unison by the piano, harp, and strings give to the listener a sense of inexact (yet, somehow, "definite") pitch due to the extremely rich and thick harmonic interaction of the various instrumental timbres. This intriguing timbral effect is suggestive of tuned membranophones or of "electronic" sounds;

2) from the last beat of m. 55 to the first beat of m. 56 there is a curious ambiguity of perceived octave - the ear follows the semitone movement from D up to E flat and thus hears the harmonic movement as primarily a semitone upward. But it is also apparent that the second chord is much clearer and (thus) "higher" than the first. So there is a perceived sense of octave shift which conflicts with the sense of semitone movement;

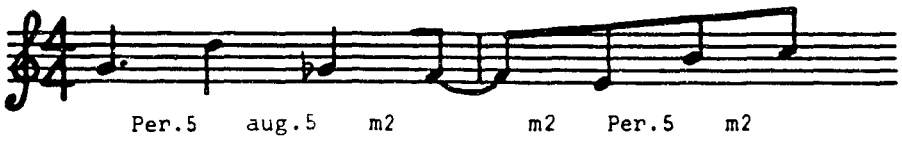
3) particularly from m. 58 to m. 64, the parallel chords intersect the pedal-note G to create a constant variety

of chords sounding variously modal, quartal, tritonal, etc.;

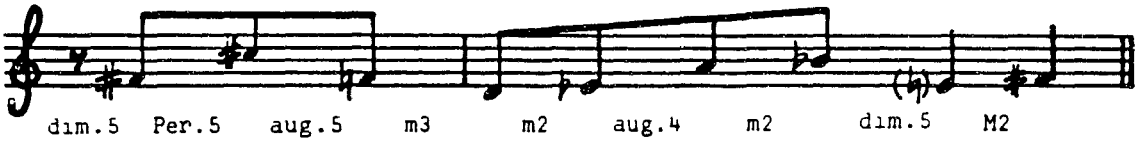
4) with the oboe entry at m. 64, the very gradual process of rhythmic and timbral displacement and evolution of the pedal-note G begins. This continues to the end of the section (m. 78).

The music of the second (middle) main section, from m. 79, is a continuous series of variations of the following theme:

"fore-phrase"



"after-phrase"



This is a freely atonal pitch series. Its modified serialism is incidental, not structural. The pitches were chosen to outline

a simple directional motif with a very recognizable shape and very restricted interval pattern. The important intervals are: three perfect fifths, three tritones, and five minor seconds. Two augmented fifths, one minor third and one major second add variety. The upward perfect fifths at the beginning of each phrase and near the end of the first phrase, and the augmented fourths, upward and downward in the second phrase, are contrasted with each other and with the short chromatic motives - three notes descending at first, then several two-note rising figures. This simple and repetitive material retains its recognizability in spite of continuous distortion: octave expansion of pitches without changing direction of interval (continuously used); octave displacement of pitches changing melodic direction (rarely used); and rhythmic alteration. There is a basic rhythmic dichotomy between regular, metric material and irregular patterns based primarily on written-out accellerandi and ritardandi. The following alteration techniques are continuously applied to the motif: transposition (usually a whole-tone downward), shortening, extension, filtering of pitches and frequent changes of timbre and dynamics. In fact, the "original theme" as notated above is never stated in its entirety.

The main gestural features of this section are:

1) frantic, acrobatic activity manifesting great energy, whimsicality and virtuosity;
2) brief, static, uni-chordal interruptions (just as this whole section is an extended interruption of the previous

and following "flow" of sound);

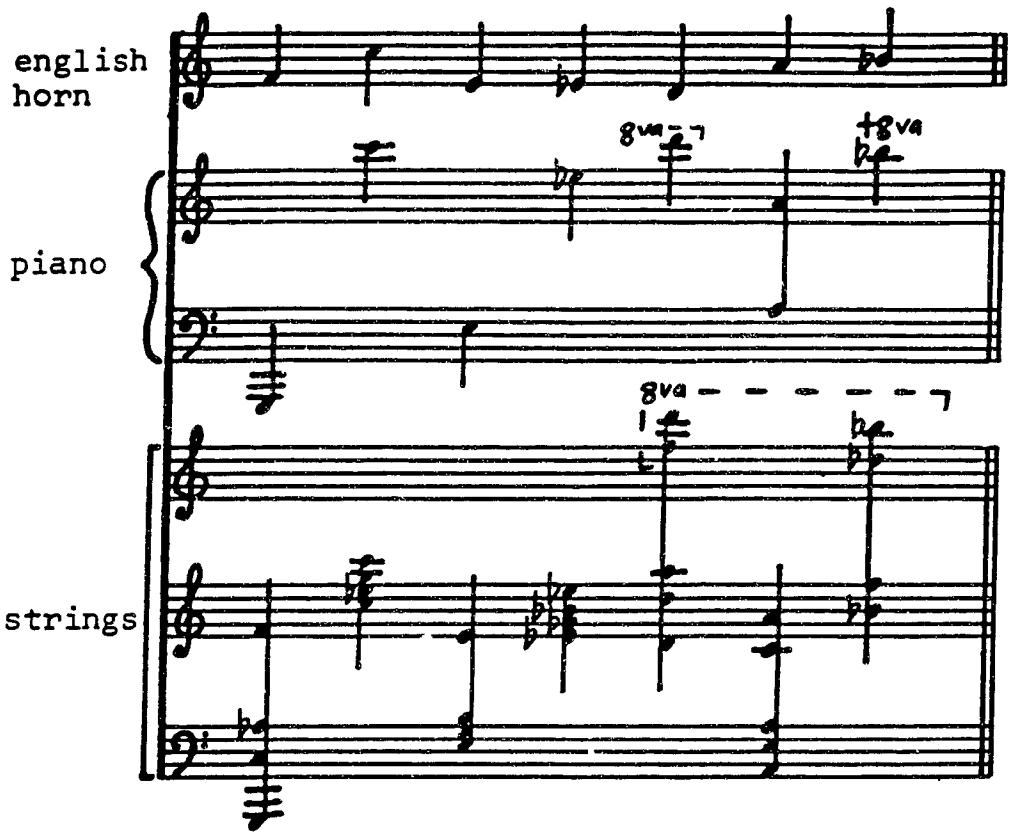
3) spontaneous "cutting and splicing" of the material in the manner of tape editing, causing (a) expansion, contraction and "arranging" of the theme and (b) gradual removal (filtering-out) of the static-chord material.

(Here, arranging means a brief-resetting of the material in a contrasting style or from a different perspective, as if it were "contributed" by a different composer. See examples at mm. 146 and 166).

Mm. 110 to 112, and 176 to 184, are examples (among others) of "super-human", "quasi-electronic" virtuosity. It does not seem possible that one pianist can play so many notes, so fast, in so many different registers, and with such wide intervallic leaps in both hands simultaneously. This effect is calculated to suggest, in breadth and complexity of sound, the "orchestral" capacity of the piano.

From mm. 146 to 148, a simple homophonic setting (arrangement) in parallel minor triads is subjected to registral distortion by interval contraction and expansion, and by (multi-) octave displacement among the chordal units. Note that the motif is stated in its "original" form (in terms of pitch) by the english horn and in an octave-expanded form by the piano, outlining alternately the lowest and highest tones of the string chords.

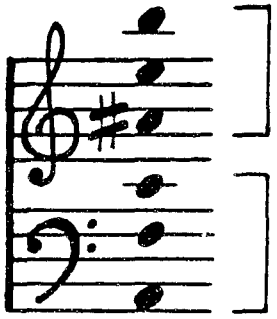
Chordal melody at m. 146



This is directly followed by an "implosion" in which the theme is stated in its most intervalically contracted form, and the pitches are allowed to "bleed together" to form an evolving "cluster" or "sound-mass" (mm. 149-152). This passage of melodic overlapping (creating a "reverberation effect") then evolves timbrally as the piano color is gradually exchanged for the sound of the bright brass: trumpets, trombones and oboes "acting as trumpets".

Underlying the material from m. 201 to m. 228 is the progression of chords notated on page 35 below. The general pitch

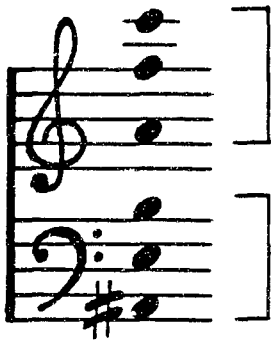
direction of this progression is gradually and consistently downward, after an initial slightly ascending passage to chord 6 (see "Original Progression" notated below). This progression consists of two basic kinds of "bi-chords", that is, chords made up of two vertical layers of three notes each. The first kind consists of a simple diatonic triad in the upper layer and different diatonic triad in the lower layer. Note the frequent use of first inversion and traditional voice-leading (even traditional progressions such as I to IV!) and open spacing within each layer. The second type of chord has two forms; one has an open-spaced first inversion major triad in the lower layer, and three notes which are analogous to "non-harmonic" overtones of the lower layer thus:



upper layer:
"non-harmonic overtones"

lower layer:
first inversion major triad

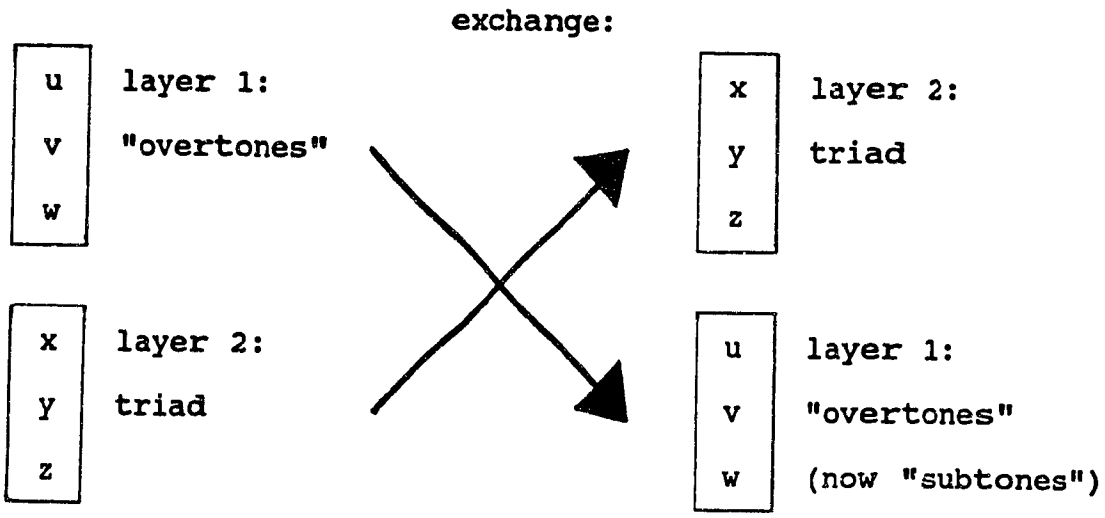
the other type simply reverses the layers:



upper layer:
first inversion major triad

lower layer:
"non-harmonic subtones".

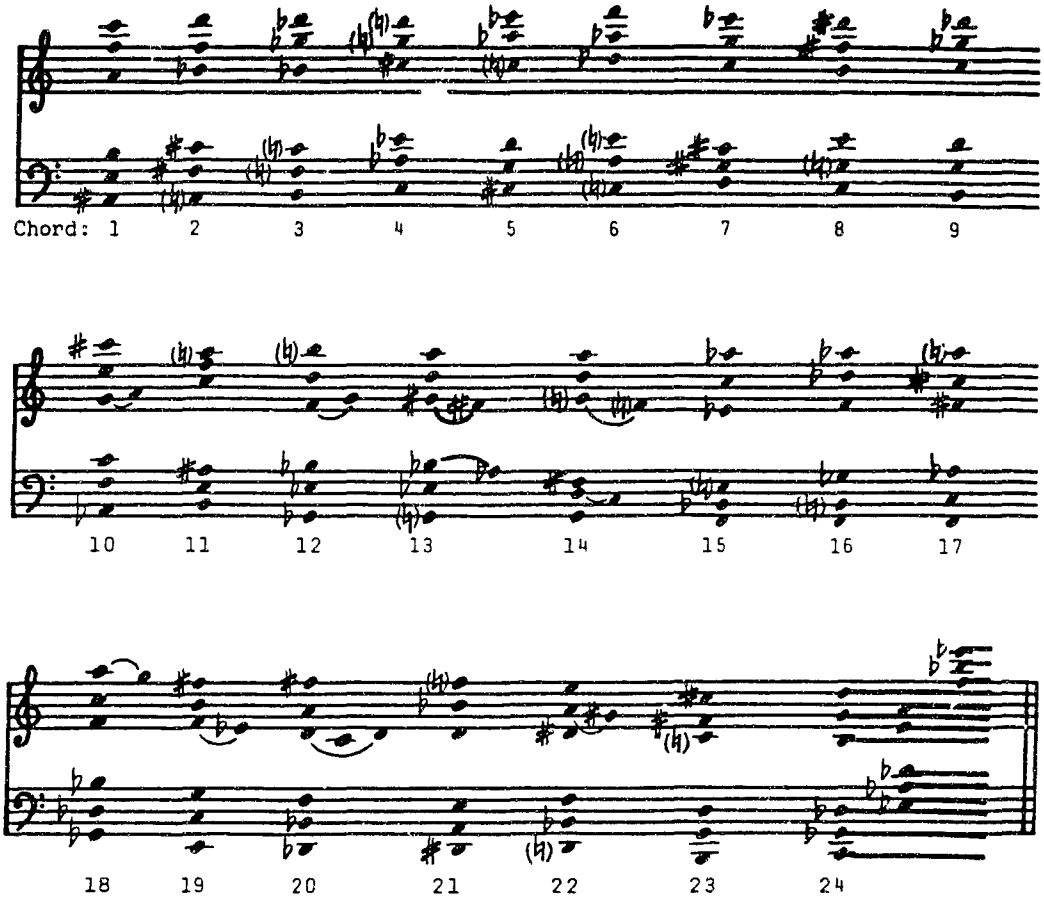
These two chords are sometimes used in sequence, the total effect being:



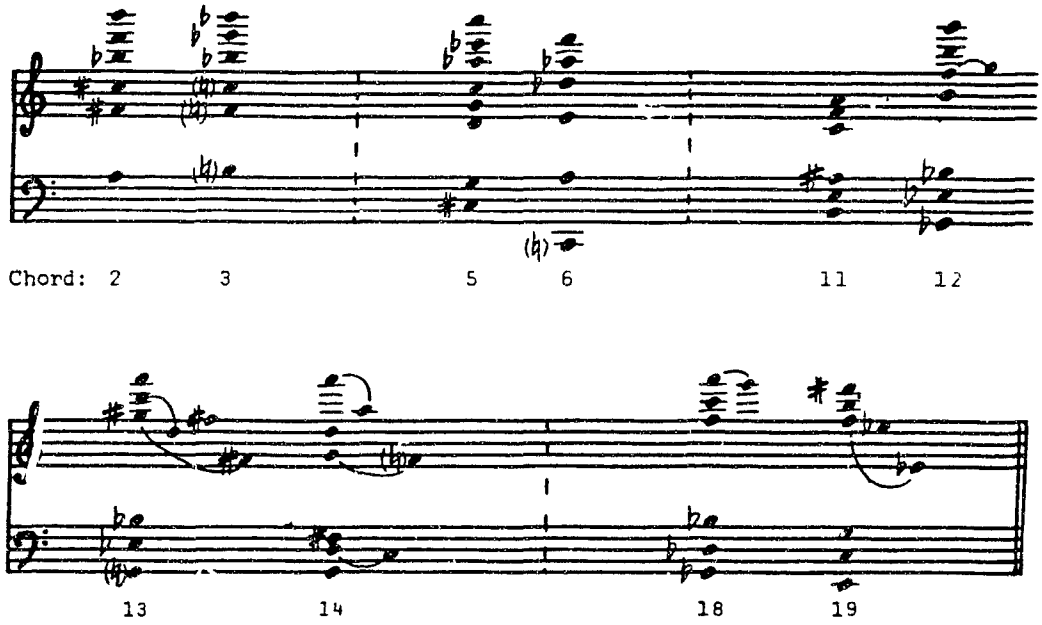
An example of this is chords 11 and 12 in the chordal reduction below. I call this ambiguous movement a "progression/inversion"; there is a sense of chord change, but it is harmonically static, because both chords use the same six pitches (though in different octaves).

Here is the chord progression notated as originally conceived, followed by the octave-displace chords used in the score (m. 201 to 228):

ORIGINAL PROGRESSION



REGISTRALLY DISPLACED CHORDS



The rhythmic processes used in activating this material include: simultaneous layering of repeated-note lines related by simple ratios; irregular arpeggiation; overlapping chords; and traditional chord progression. These follow each other in the order listed, with some exceptions, and by the "two-steps-forward, one-step-back" method.

Dynamic interchange is an important feature of this material, both horizontally (one vertical sonority fades-out while the next fades-in, etc.) and vertically, as in mm. 215-216, where the high layer is loud and the lower layer is soft. Mm. 222 to 224 feature gradual interchange of loud and soft between the upper and lower layers.

Mm. 242-257 consist of freely tonal material, mainly of two kinds:

1) the main theme from the "fast section" altered, then harmonized with parallel overlapping major $\frac{6}{3}$ triads with open spacing. Some of the "melody-chords" are octave-displaced, and there are also interjections (still the same kind of chord) in the high and low registers. This material has a bright, spacious, reverberant sound created by the overlapping of clarinet, harp, piano, glock and vibraphone timbres;

2) two brief contrasting interjections of sombre, dense, dryer and lower material from the strings (later joined by the brass). This material is in a "quasi-minor mode" contrasting to the previous and following "quasi-major" material. The "soprano" line starts as an inversion of the previous theme, and the chords start to move as a functional progression in G dorian, but almost immediately start to "modulate" and "drift away". But the main contrast of this material is the fact that it is "de-tuned" to one quarter-tone below the prevailing pitch level, while the chords and "progressions" themselves remain internally "in tune".

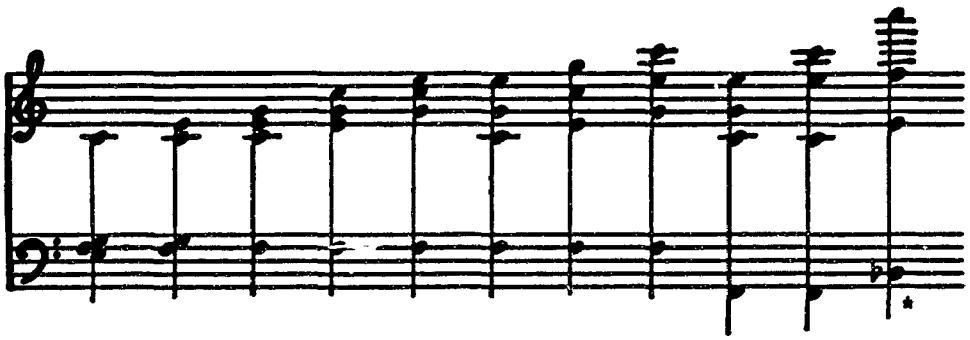
The simplicity of the two materials emphasizes the "change-of-tuning" effect. (Since this piece seems to be a piano concerto, the use of this "de-tuned" material is ironic: the piano cannot play it - it is "between the keys".)

The piano material at m. 257 is interesting for its orchestral effect (partly supported, or "cushioned", very softly by orchestral instruments). The pan-registral fullness and richness, the variety of articulations, note-lengths and (particularly) dynamics gives great variety and depth to the texture.

The unusual spacing and dynamics of the E Major chord (m. 257), with the isolated, loudly accented B natural in the middle

register, and the other two-chord factors played very softly in the very low register with the third of the chord in the bass, adds a unique dramatic effect; as does the sudden clearing of texture to a single, accented B natural in m. 259.

All vertical sonorities from mm. 265 to 269 are inversions of the "major chord plus perfect fourth", as are almost all the chords from mm. 284 to 291 (with a little "wandering" and a few accented interjections). This is an interesting chord because each different inversion or spacing emphasizes a different intervalic and/or spacing effect with a corresponding difference in the perception of the degree of consonance/dissonance. Here is an outline of the inversion and spacing possibilities of this type of chord, as used in m. 265 to m. 291:



spacing: close ——————→ medium ——————→ wide

* (5th changed to flat 7th)

The use of traditional voice-leading with passing tones, etc., gives a smoothe-flowing quality and directionality that divert attention from the similarity of the vertical sonorities.

From m. 291 to m. 296, there is a return to chords in two three-note layers, as at mm. 201 to 228. This time there is more use of the vertical interchange of "triad" and "non-harmonic partial" layers in consecutive chords as described above, but now they are in the low register. They are now used to rework the alternating-chord motif from m. 263. These "dissonant" pitches in the lower register, closed position, played on the piano produce a powerful, hard-edged, pungent sonority which is emulated by the orchestral choirs as the material is passed around from group to group.

Mm. 298 to 301 consist of two dramatic gestures: a flashback to the initial "explosion" abbreviated in the manner of film editing (minimal gestures with no preparation and no repetition) then a brief fade-out consisting of two simple lines of alternating whole-steps followed by the ultimately simple musical gesture: ...which fades in the distance...

CONCLUSION

In a sense, this piece is a perceptual game for the listener - to find the direction of the piece as a whole, and in local areas, amid the maze of material which is sometimes disguised, sometimes clear, sometimes contradictory, sometimes logical.

Two conceptual chains were particularly important in the formation and manipulation of the musical material:

1) STRUCTURE: simple → regular → symmetrical → changing → evolving → distorting → disintegrating;

2) FOCUS: obsessive → clear → shifting → blurring → ambiguous → obscured.

These two chains of concepts are really two different viewpoints of the same thing: the composer is concerned with organizing the structure of the sonic experience in such a way that the listener can make meaningful patterns from it; the listener must actively participate by deciding where to focus his attention, by continually relating one aspect of the music to another and re-evaluating these decisions in the light of the changing, evolving, distorting - that is, RESTRUCTURING - sound continuum.

The form and materials of this piece are molded by these concepts so that the listener's attention is guided or manipulated in various ways - shifted gradually, changed suddenly, even "tricked" by unpredictable musical events so that he must continually choose where to focus his attention and decide the relative importance of the various sonic events. Thus the listener's perception of the piece evolves with repeated listening as these perceptual choices are re-examined and altered. Hopefully, this music will seem to become more intricate and interesting as the listener becomes more and more familiar with it.

The increased recognition, patterning and interrelating of local sonic events increases the awareness of the logic, directionality and unity of the musical structure, but also increases awareness of the complexities, ambiguities and subtleties inherent in the musical texture.

Through the process of the piece the "solo" piano and the orchestra meld into one "super-instrument". This becomes particularly apparent in the final gestures of the work. The return to extremely simple material reveals the essential unity of all the disparate musical forces and materials used. Finally, everything is "flowing together", fulfilling the promise of the title of the work: "Confluence".

Confli

for piano and or

by

Brian S

duration: ca 13 m

Instrumentat

Solo Pian

I Flute

II Flute doubling piccolo

uence

orchestra

Sexton

minutes

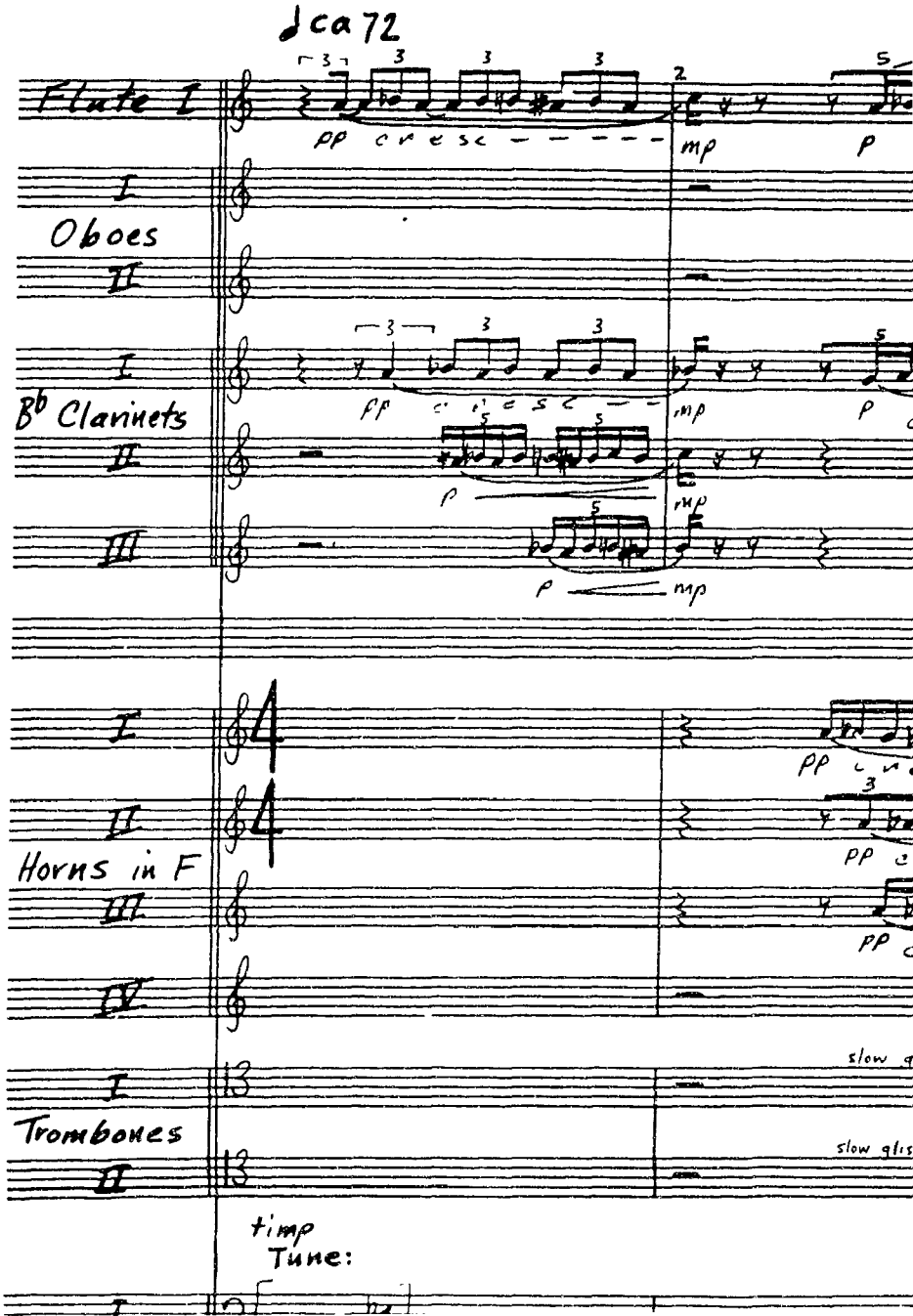
tion

10

I & II Trumpets in C
I & II Trombones

Confl

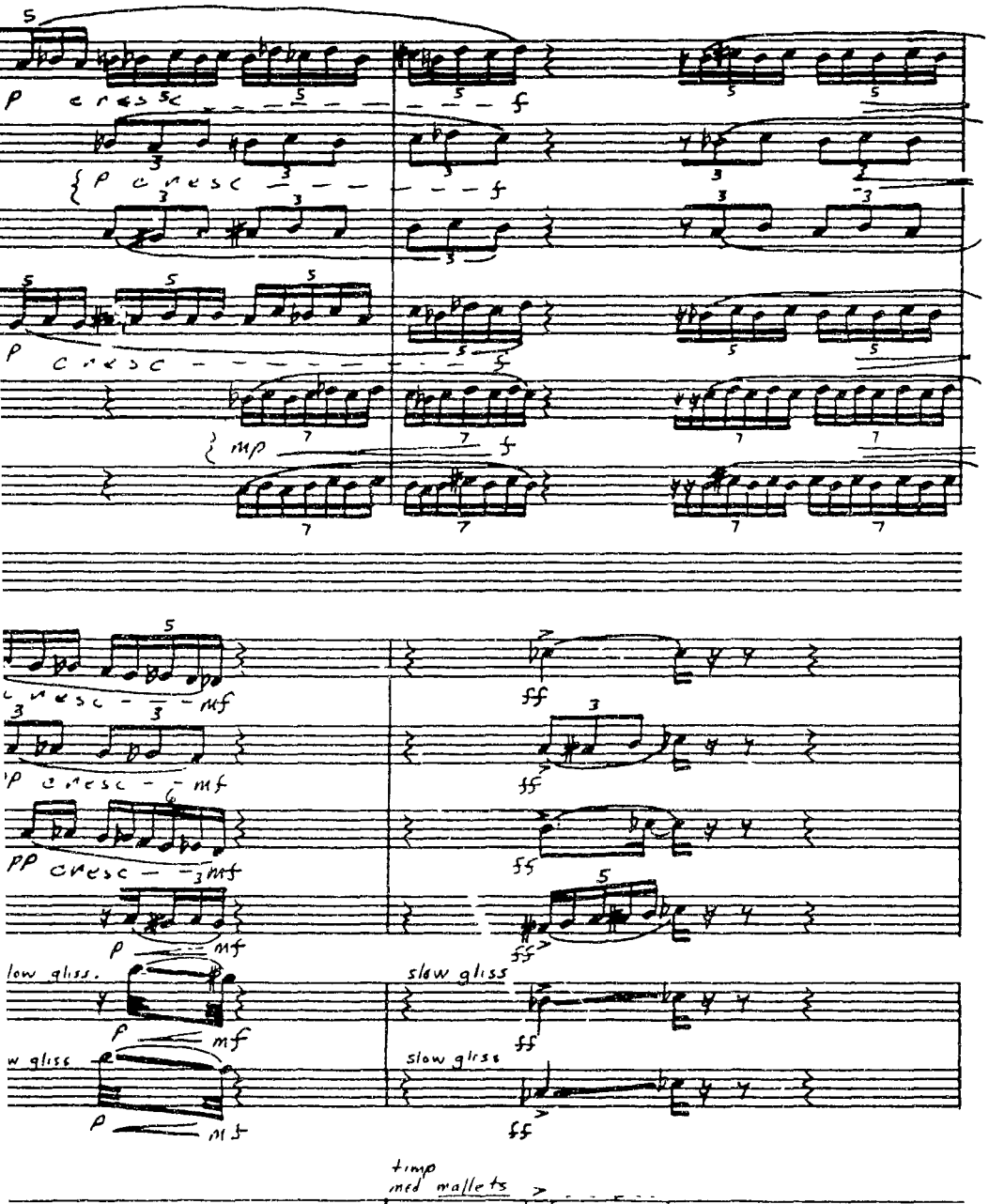
for piano a

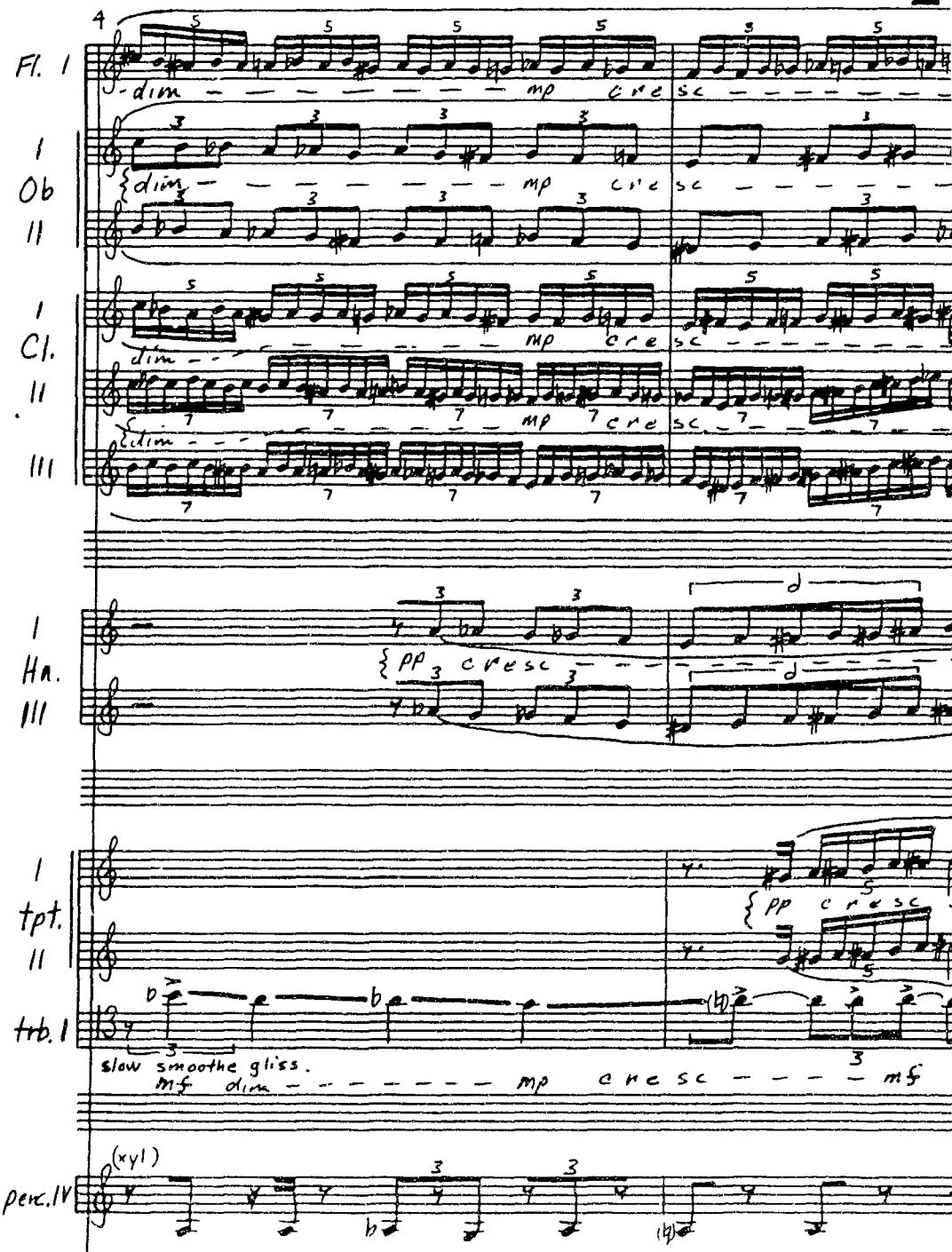


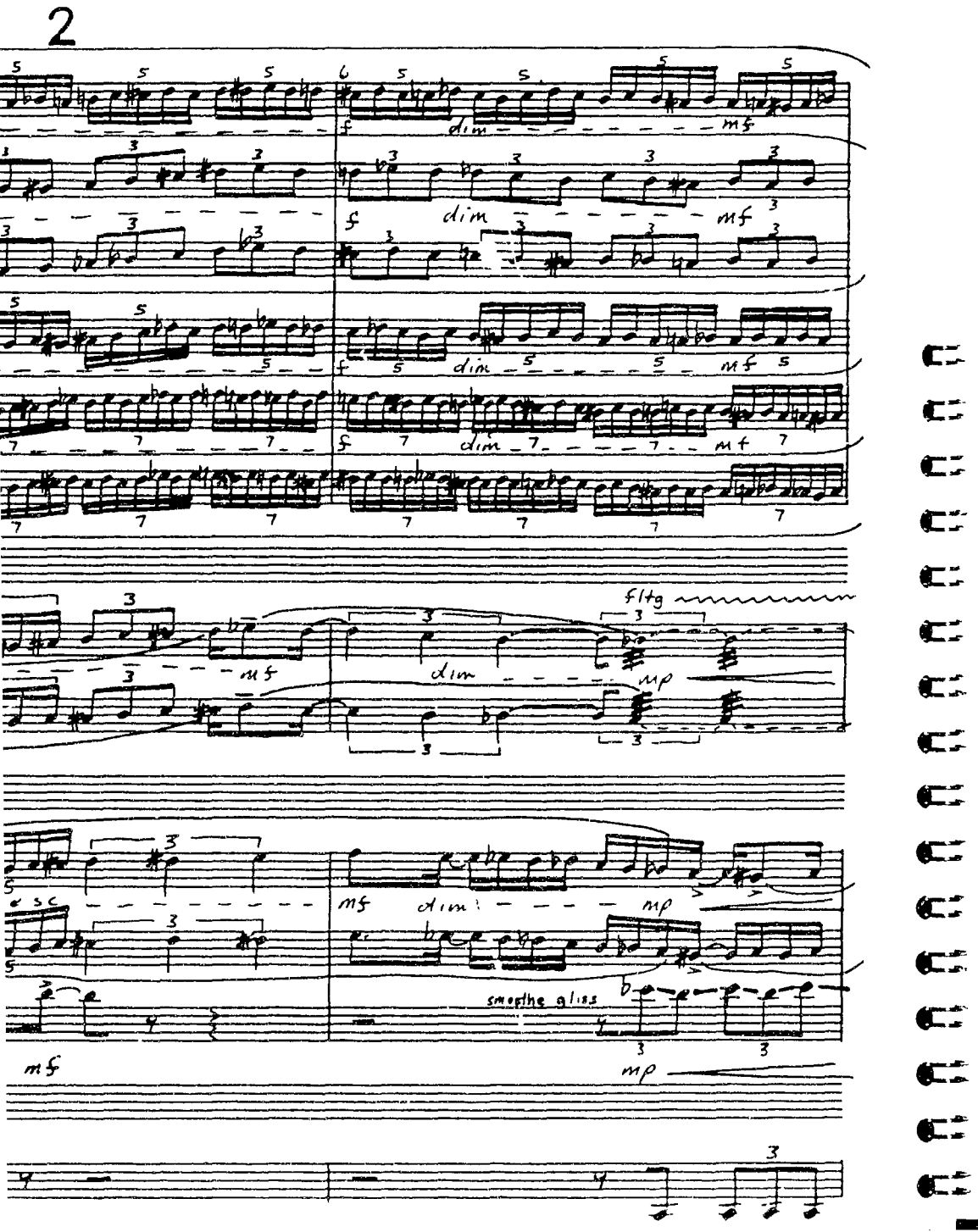
fluence

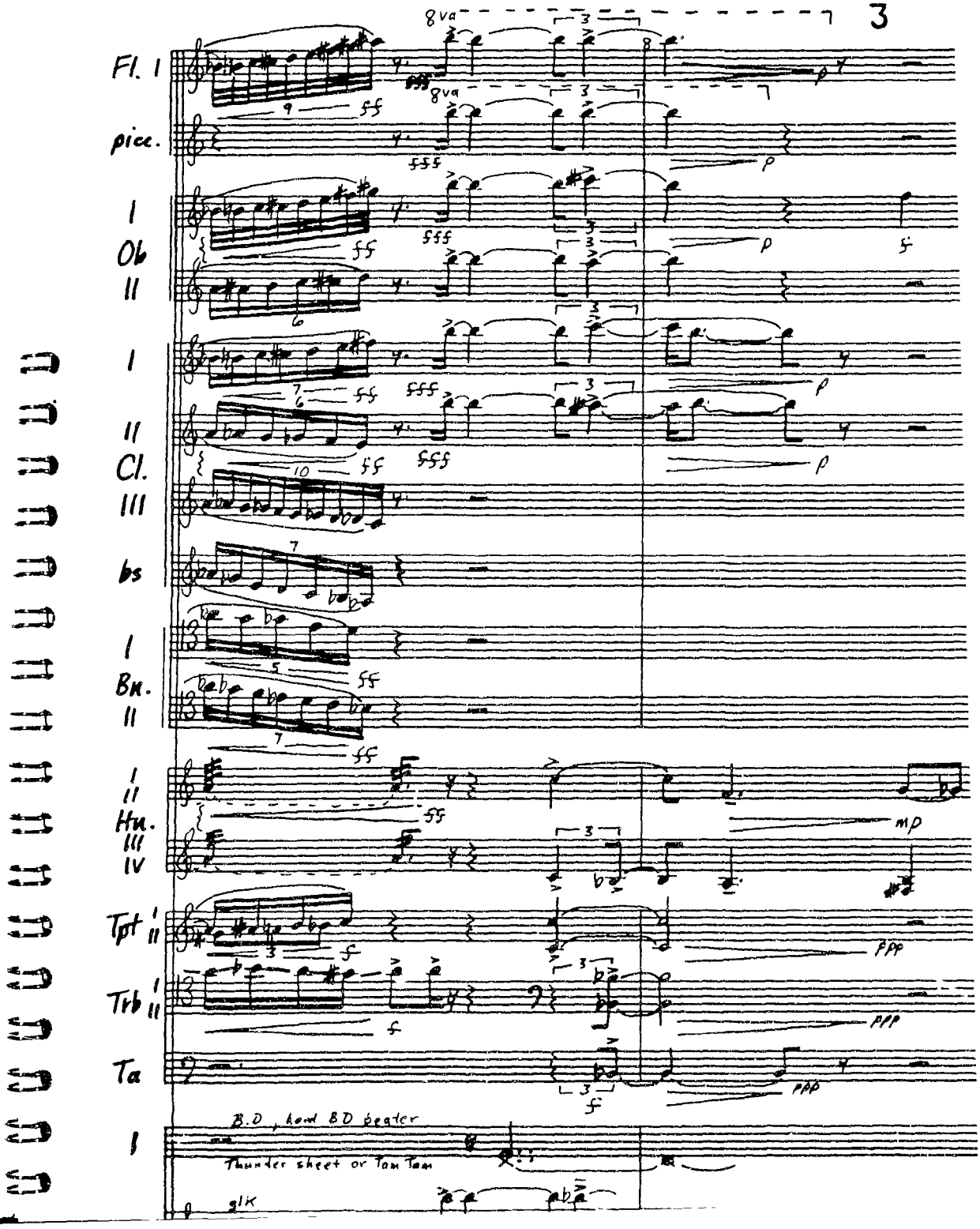
and orchestra

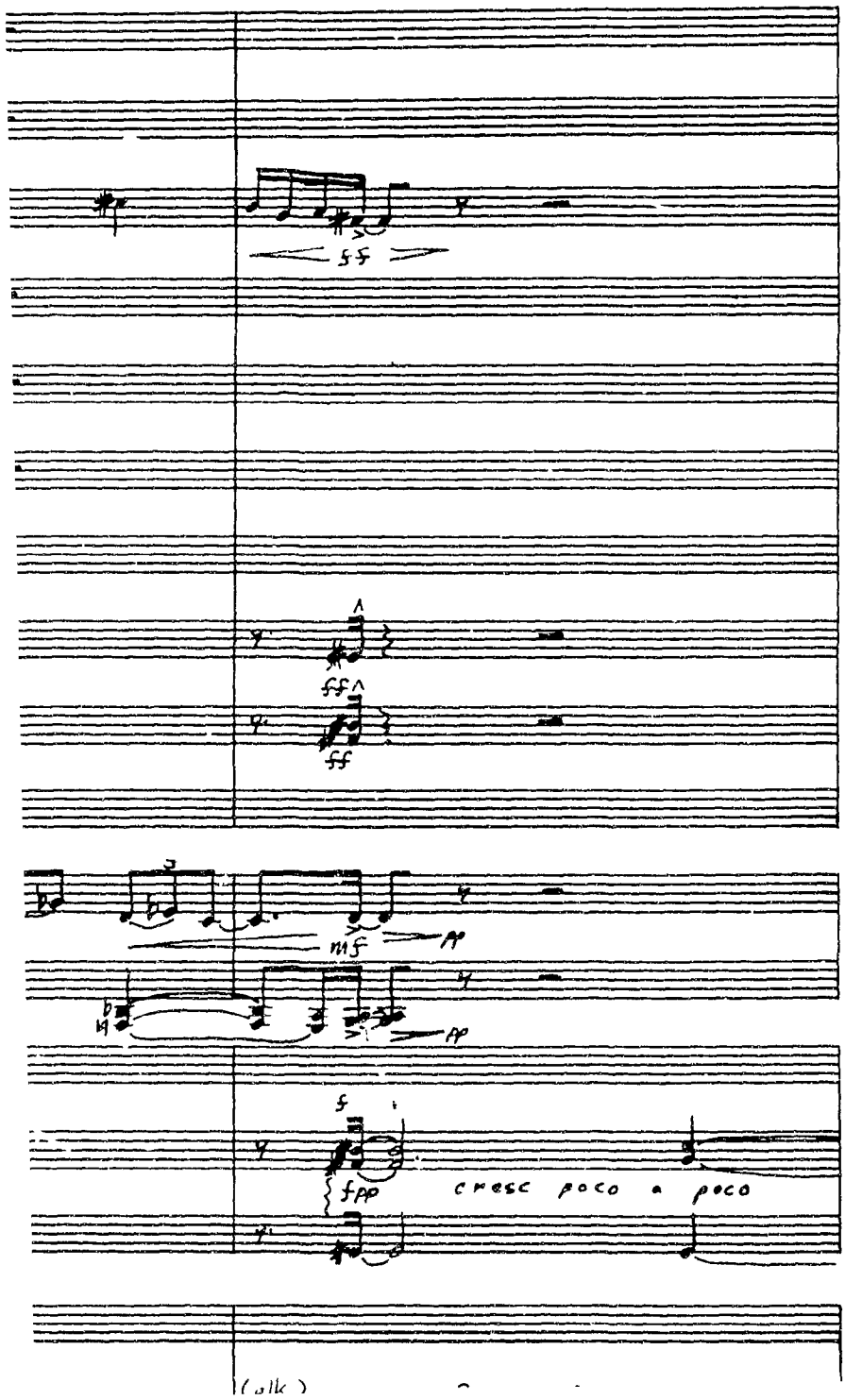
Brian Sexton, 1986

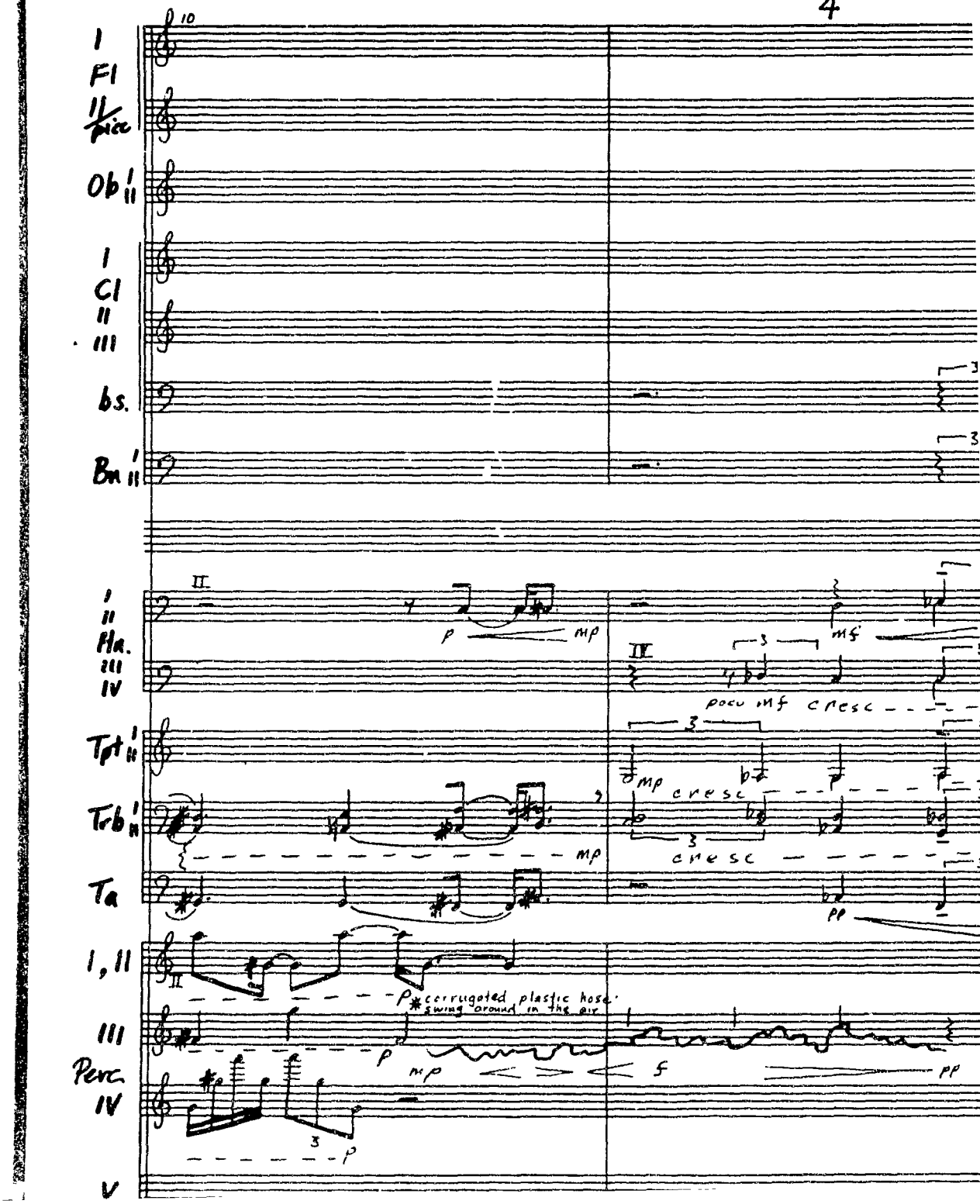


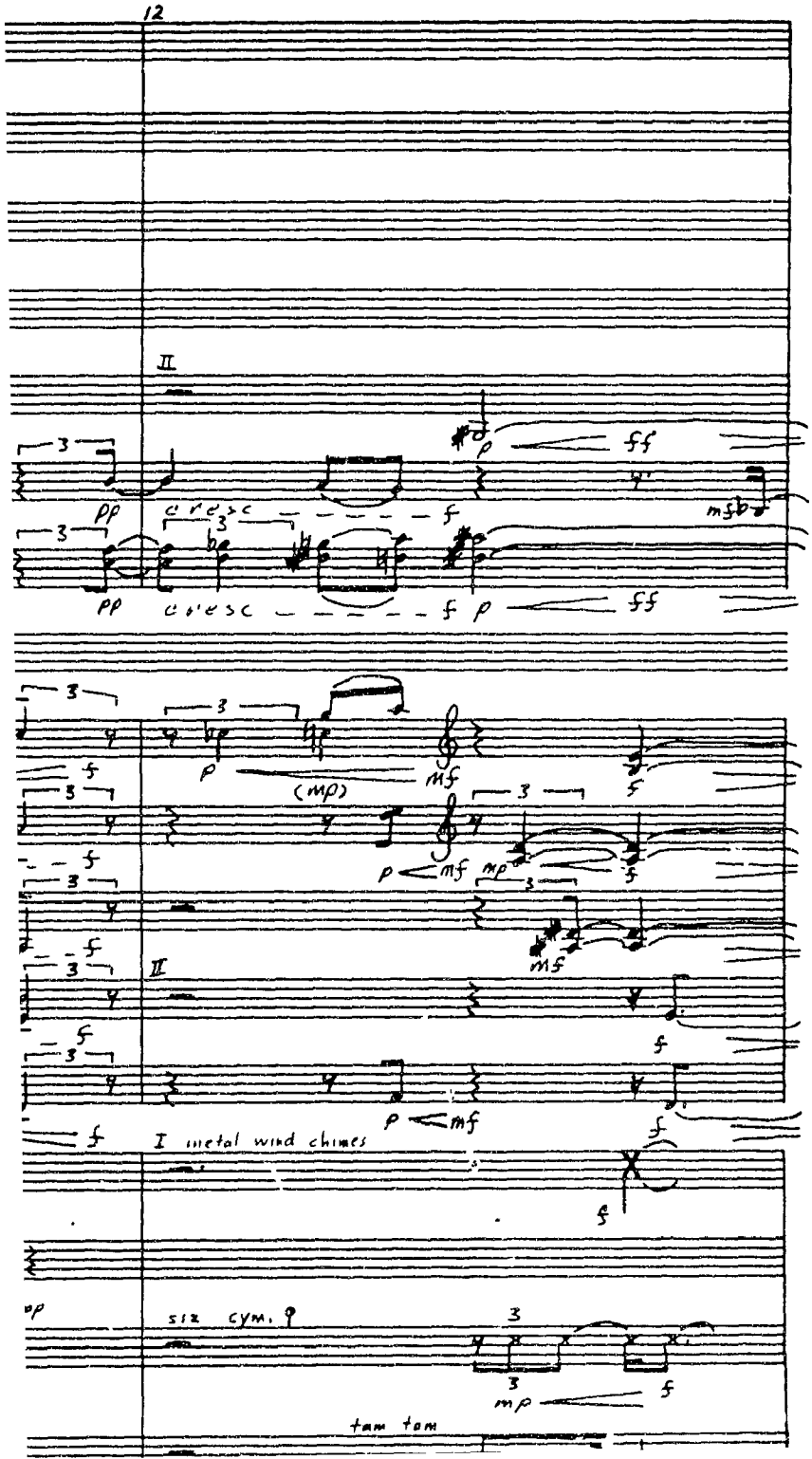

4
Fl. I
dim
mp
cre
sc
I
Ob
II
I
Cl.
II
III
I
Hn.
III
pp
cresc
I
tpt.
II
trb. I
slow smoothe gliss.
mf
dim
mp
cresc
mf
(xyl)
perc. IV

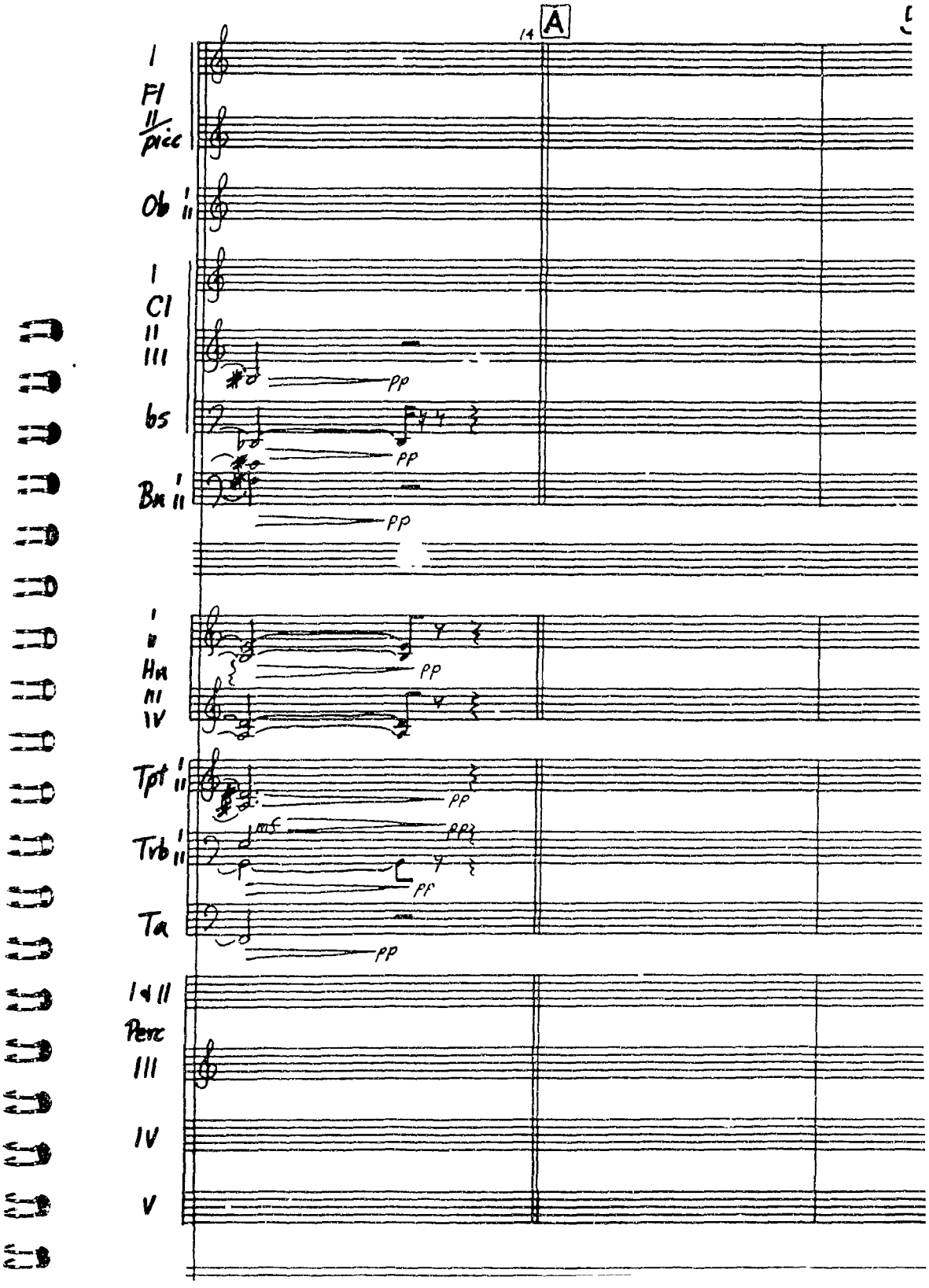

2
dim
mf
fltg
mp
smoothe gliss


3
8va
Fl. I
8va
picc.
I
Ob
II
I
II
Cl.
III
bs
I
Bn.
II
I
II
Hn.
III
IV
Tpt I
II
Trb I
II
Ta
I
B.D., hand BD beater
Thunder sheet or Tam Tam
gliss


ff
ff
ff
mf
pp
pp
f
fpp
cresc poco a poco

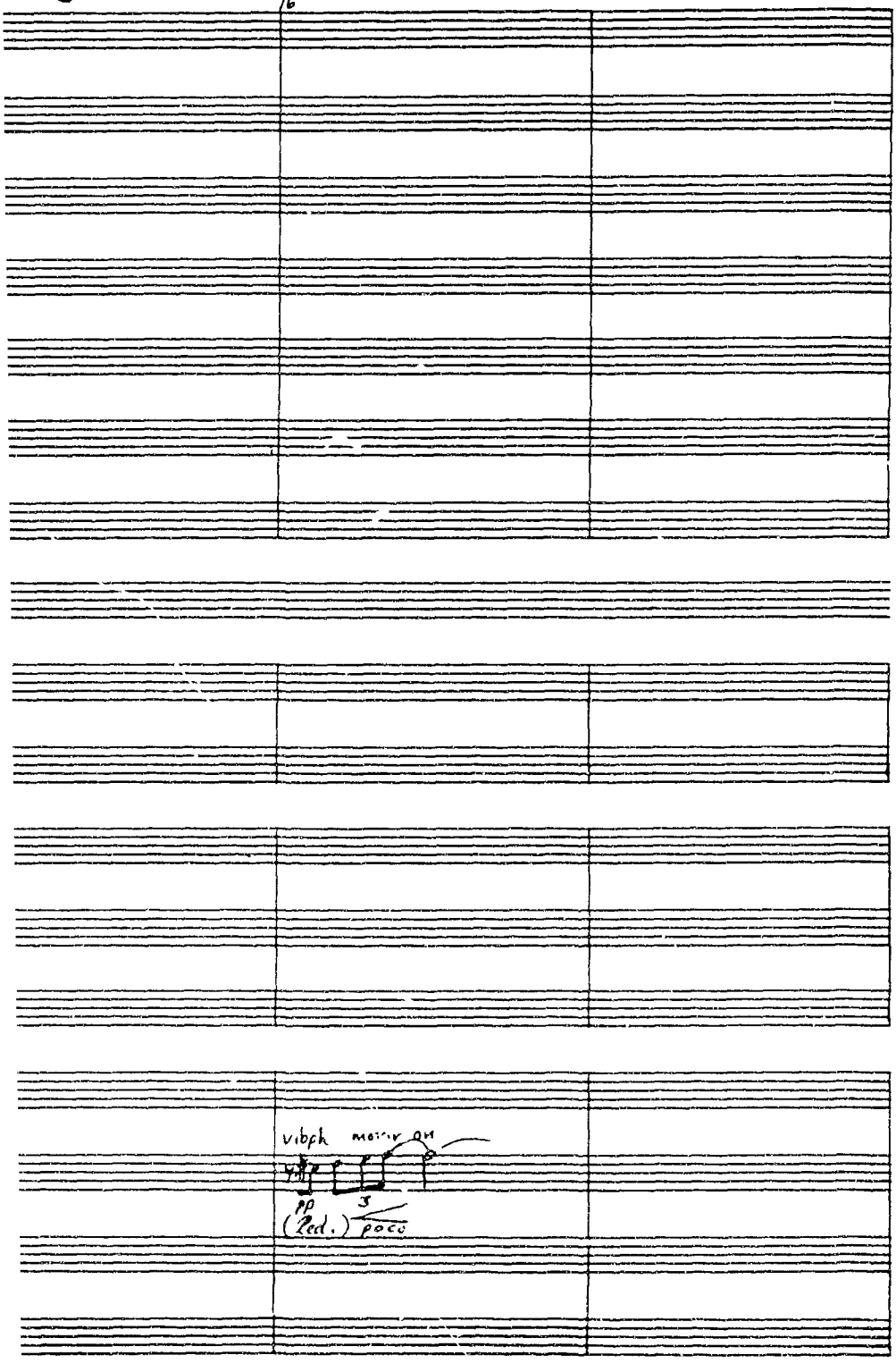

10
I
Fl
II
Picc
Ob I
II
I
Cl
II
III
bs.
Bn I
II
I
II
Hn.
III
IV
II
p
mp
III
mf
poco mf cresc
Tpt I
II
Trb I
II
mp
cresc
cresc
Tba
pp
I, II
II
p
corrugated plastic hose
swing around in the air
III
p
Perc.
IV
mp
f
pp
3
p
V

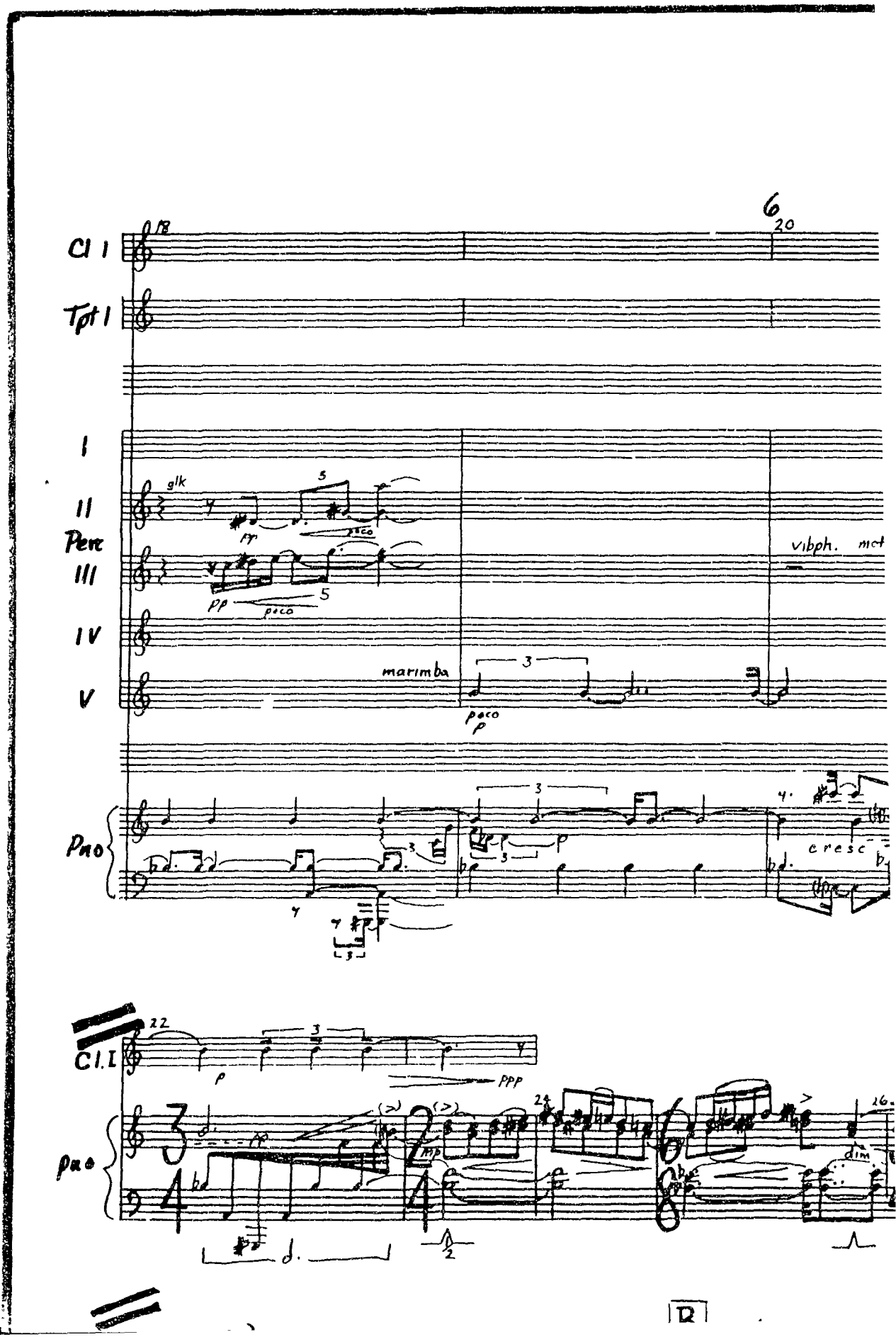

12
II
pp
cresc
f
p
ff
mf
(mp)
mp
I metal wind chimes
siz cym.
tam tam


14
A
I
Fl
II
picc
Ob
I
II
I
Cl
II
III
bs
Bn
I
II
pp
pp
pp
I
II
Hn
III
IV
pp
Tpt
I
II
pp
Tvb
I
II
mf
pp
pf
Ta
pp
I & II
Perc
III
IV
V

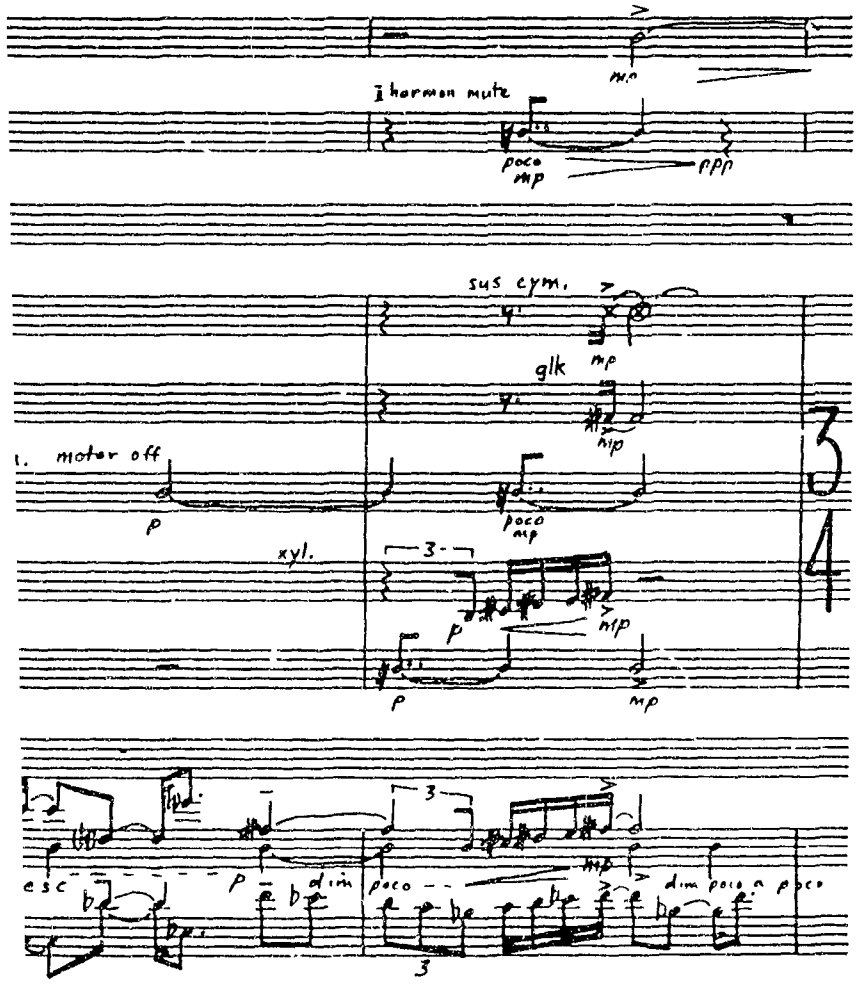
5

16

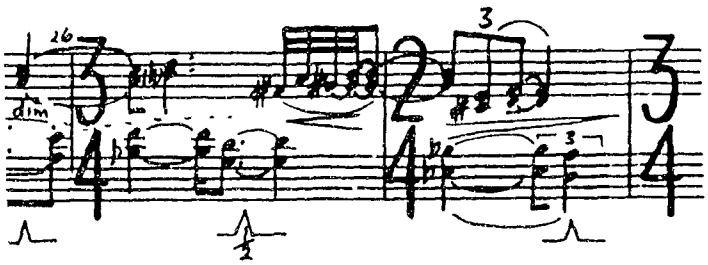




Cl I
Tpt I
I
II
Perc
III
IV
V
glk
pp
poco
vibph.
marimba
poco
p
Pno
cresc
Cl. I
p
ppp
Pno
mp
dim


1 harmon mute
poco mp
ppp
sus cym.
glk
mp
1. motor off
p
xyl.
3
mp

esc
p
dim
poco
mp
dim poco a poco
3


16
dim
3
3

I Flute

II Flute doubling piccolo

I & II Oboes

I, II & III Clarinets in Bb

Bass Clarinet

I & II Bassoons

I, II, III & IV Horns in F

Harp

Percussion:

I timpani(4), suspended cym
5 temple blocks, triang

II glock., snare drum, hi-ha

III vibes, chimes, guiro, anv

IV xylophone, 5 temple block

V marimba, slap stick, ta

Score in C: all instruments sou
octave transpositions: piccolo snd
xylophone snd. 8va higher, and doubl

Traditional rules for application of

I & II Trombones
Tuba
I & II Violins
Viola
Violoncello
Double Bass

p

mbal, metal wind chimes, bass drum
gle
at cymbal, ratchet

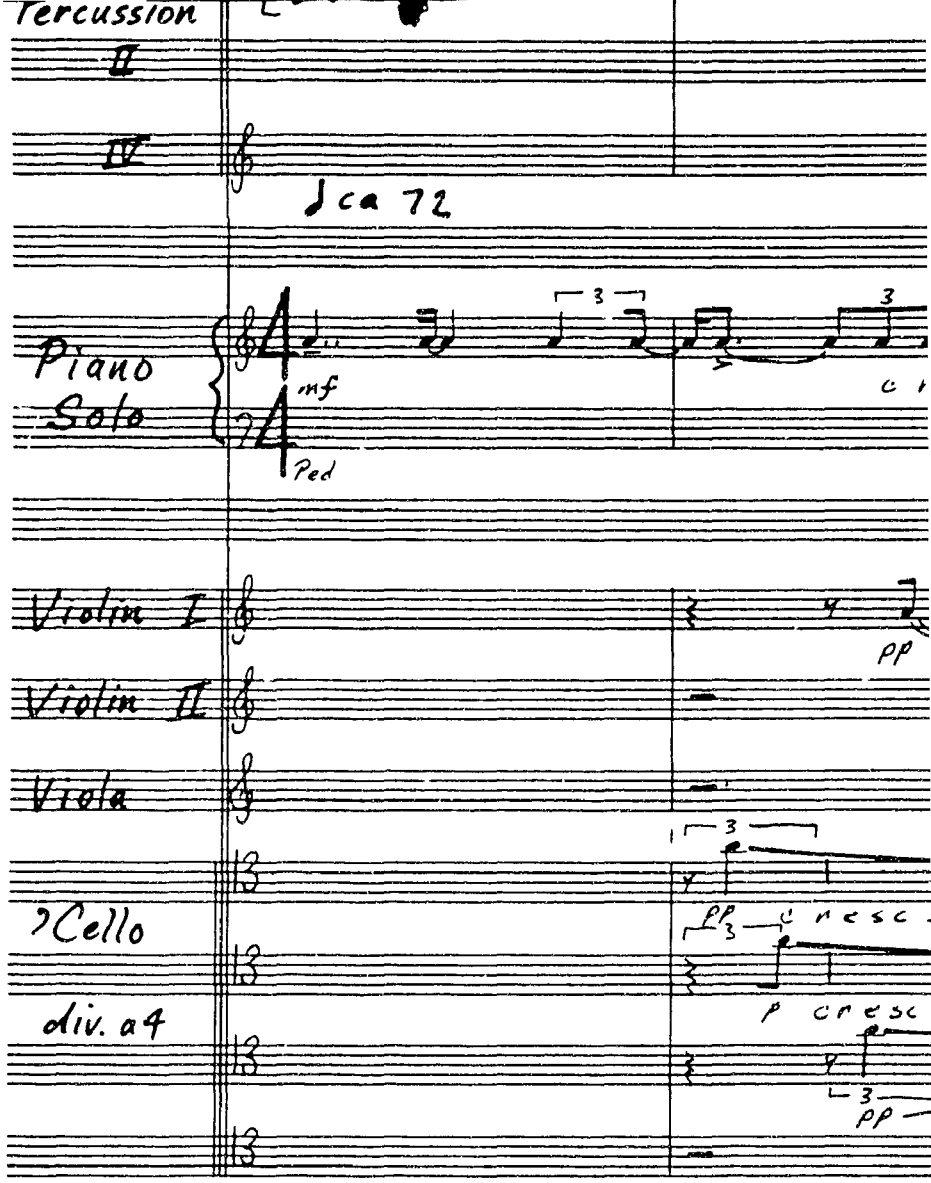
vil, corrugated plastic hose (see note in score)

ks, triangle, sizzle cymbal

am tam (i.e. large untuned gong)

unding as written except for the usual
8va higher, glock sounding 15ma higher,
ole bass snd. 8va lower.

f accidental signs apply in this score.


Percussion
II
IV
Jca 72
Piano
Solo
mf
Ped
Violin I
Violin II
Viola
Cello
div. a4
pp
cresc
p cresc
pp

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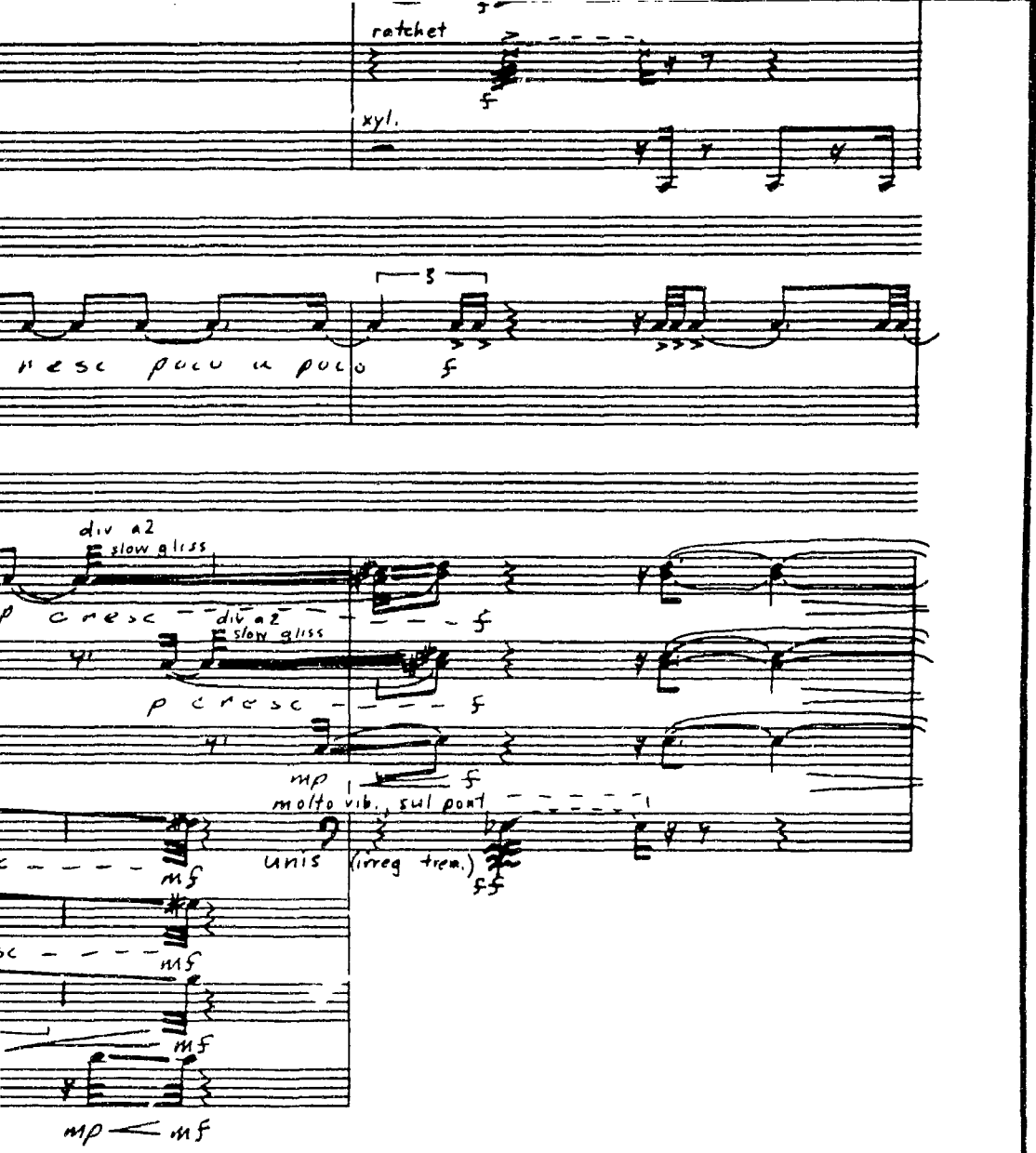
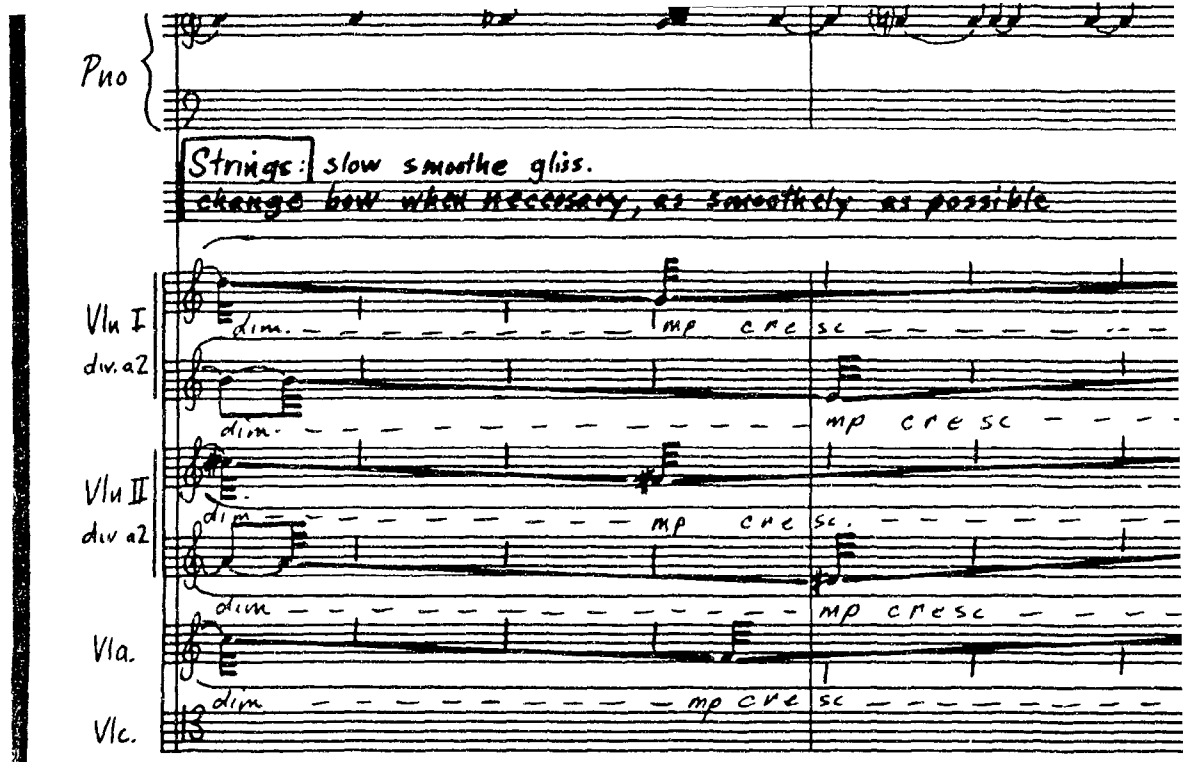
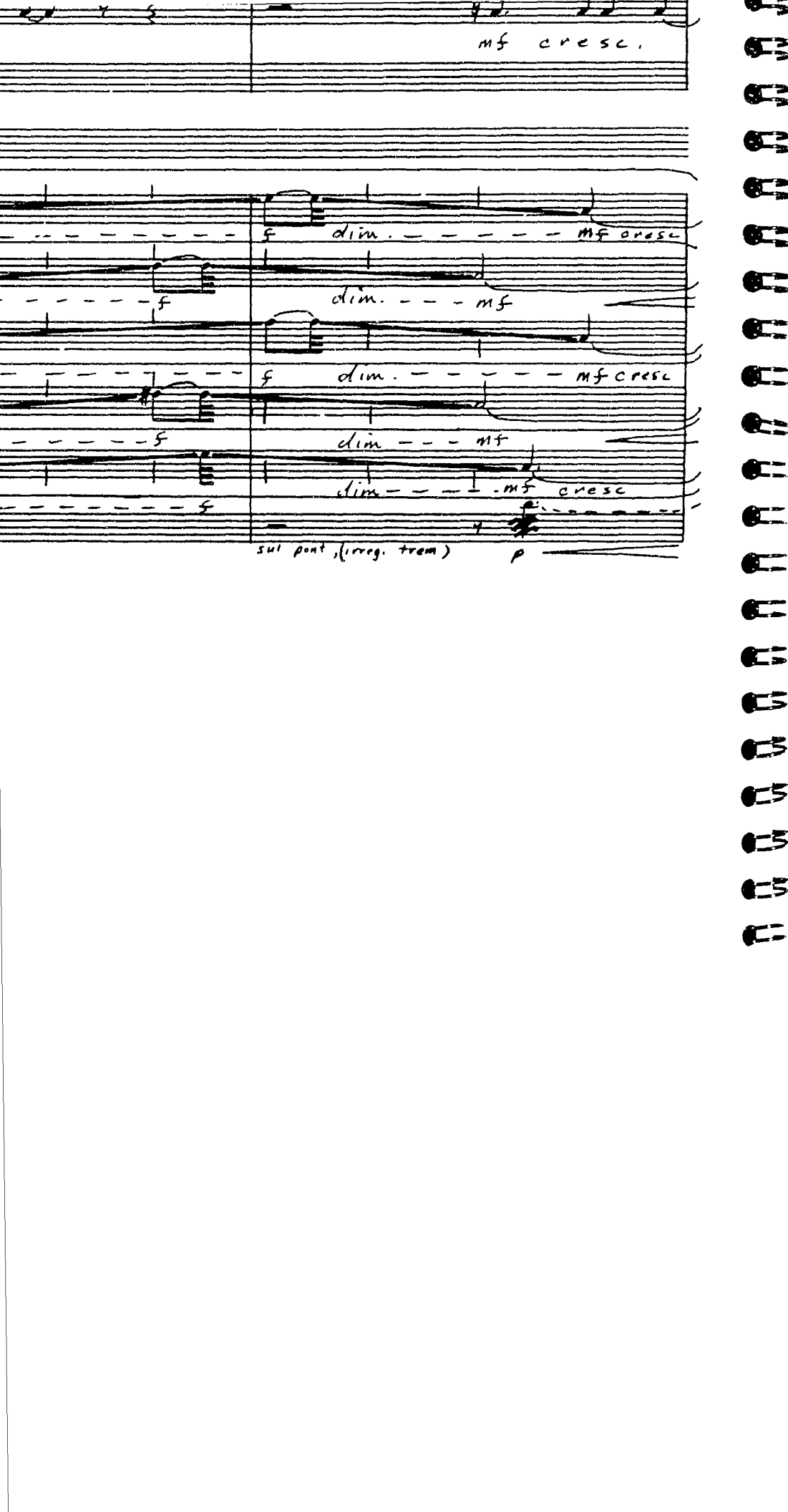
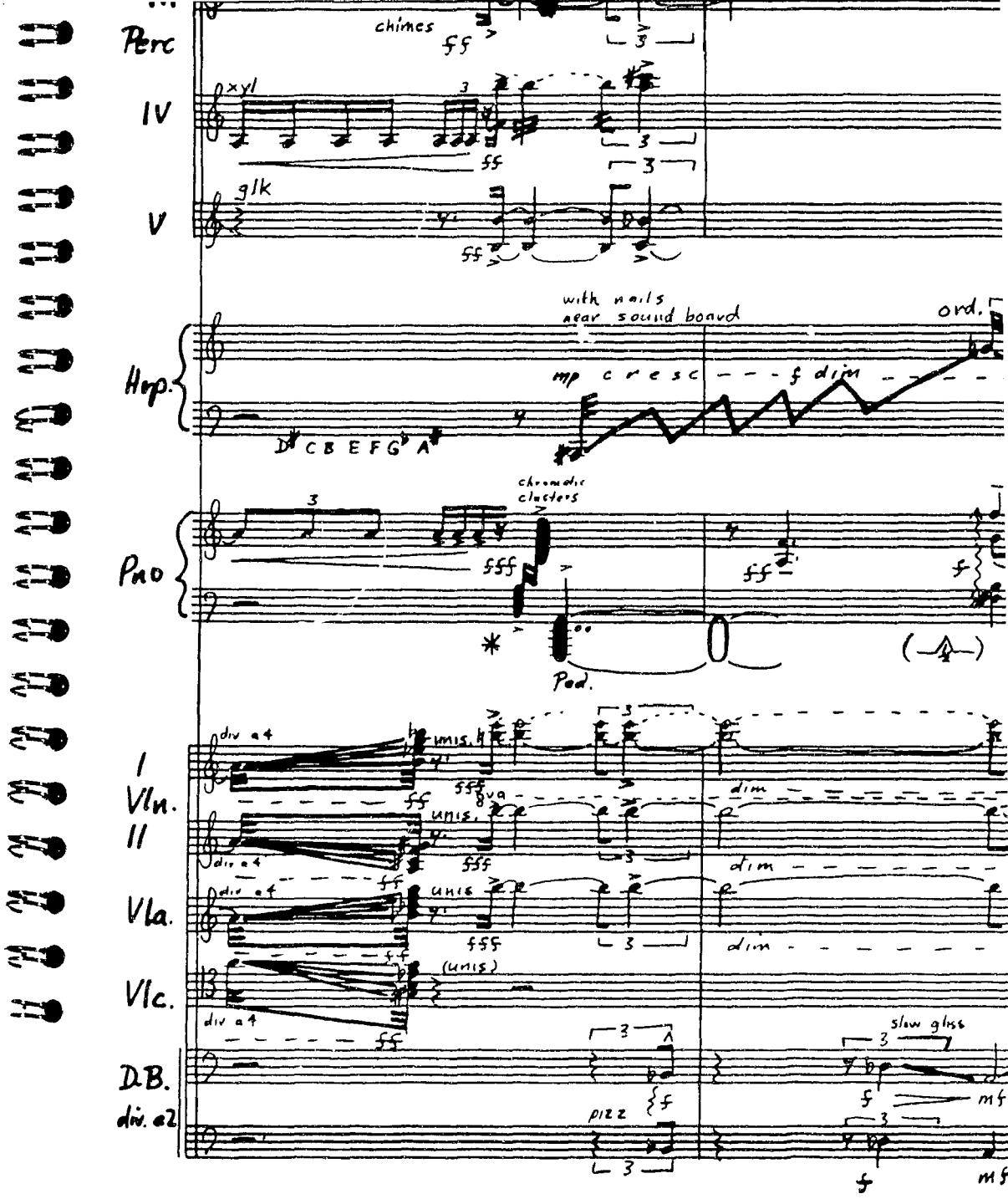
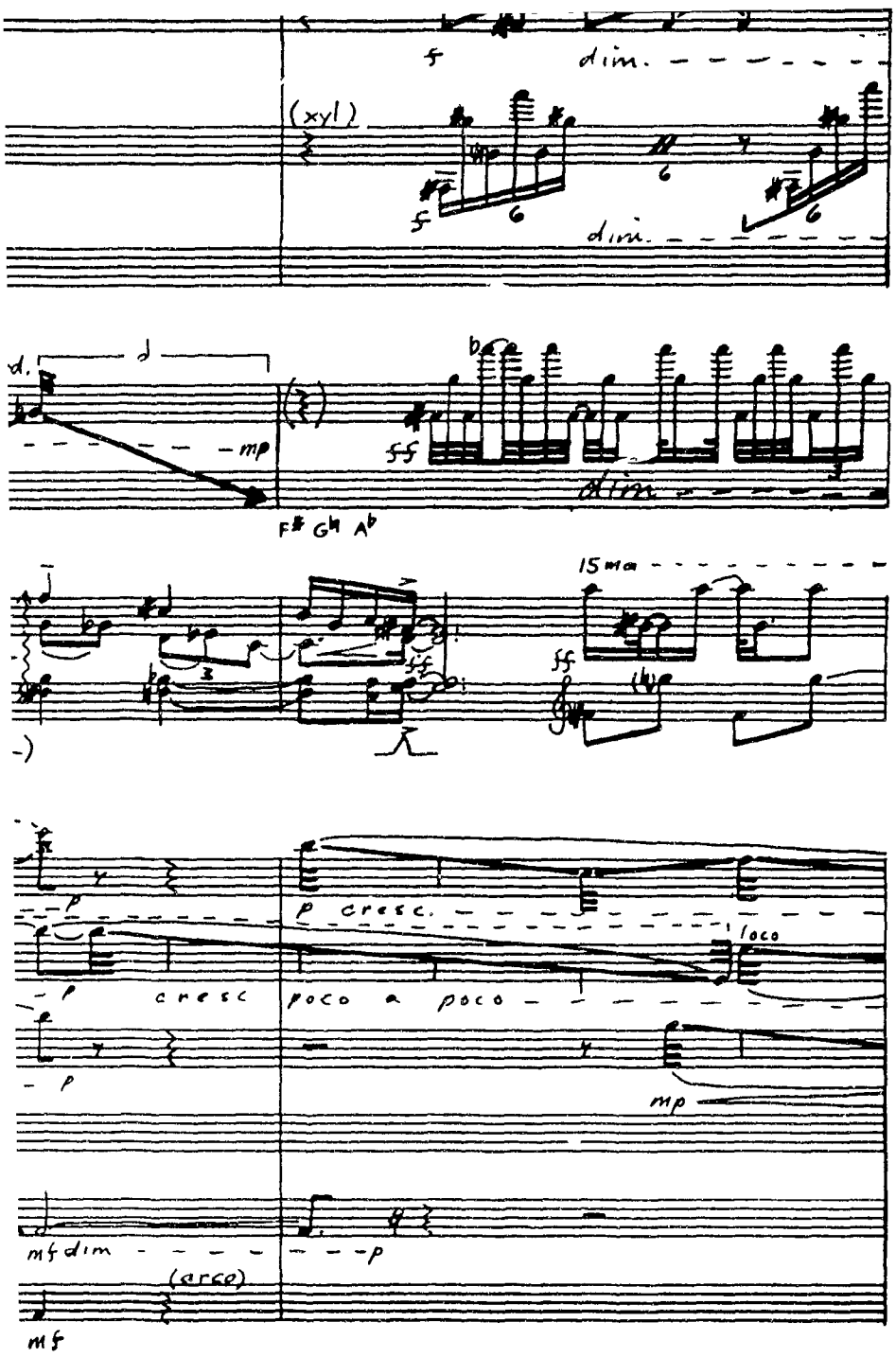

ratchet
xyl.
cresc poco a poco
div a2
slow gliss
p cresc
div a2
slow gliss
p cresc
mp
molto vib., sul pont
unis
(irreg trem.)
mf
mf
mf
mp
mf

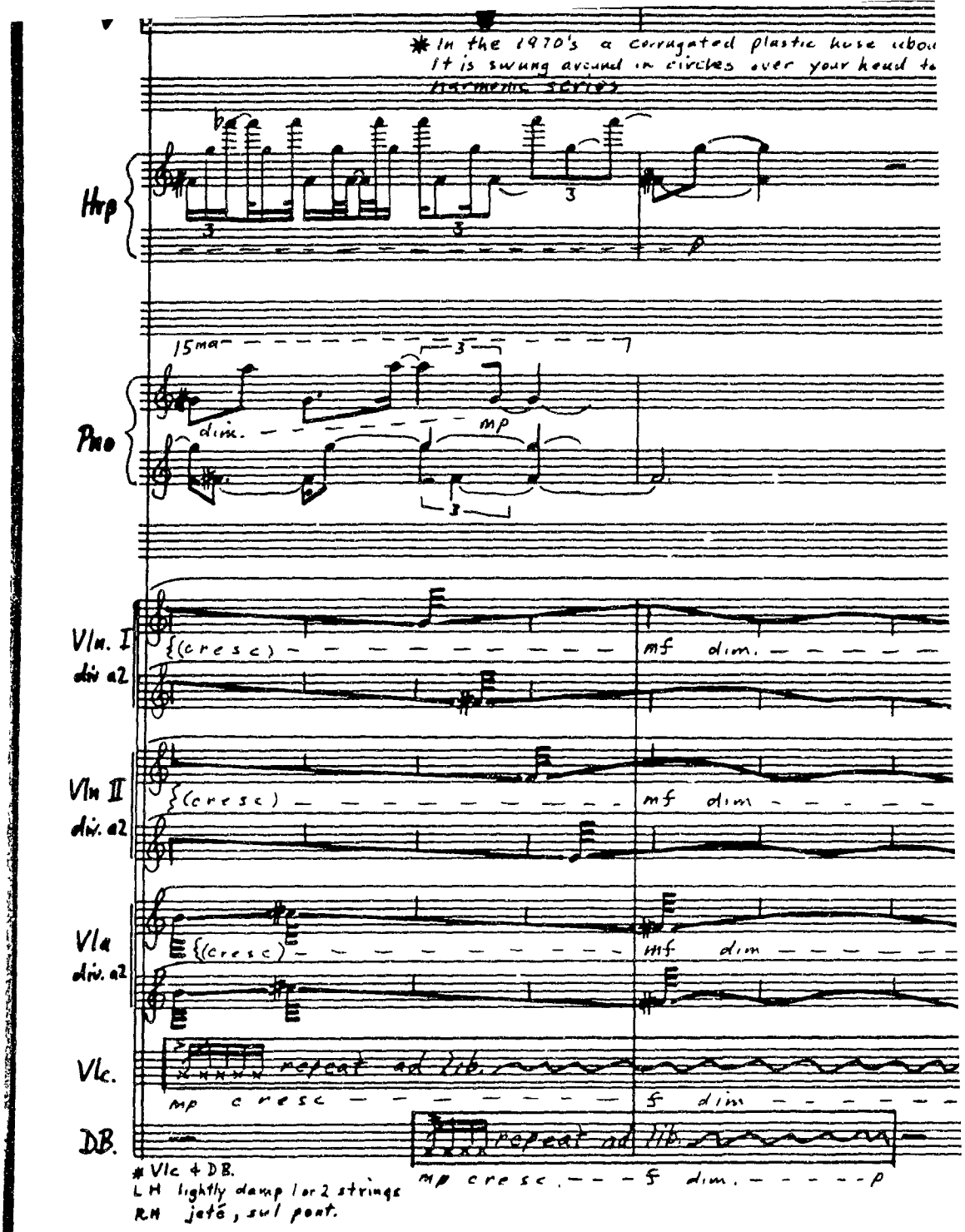
R. Sexton

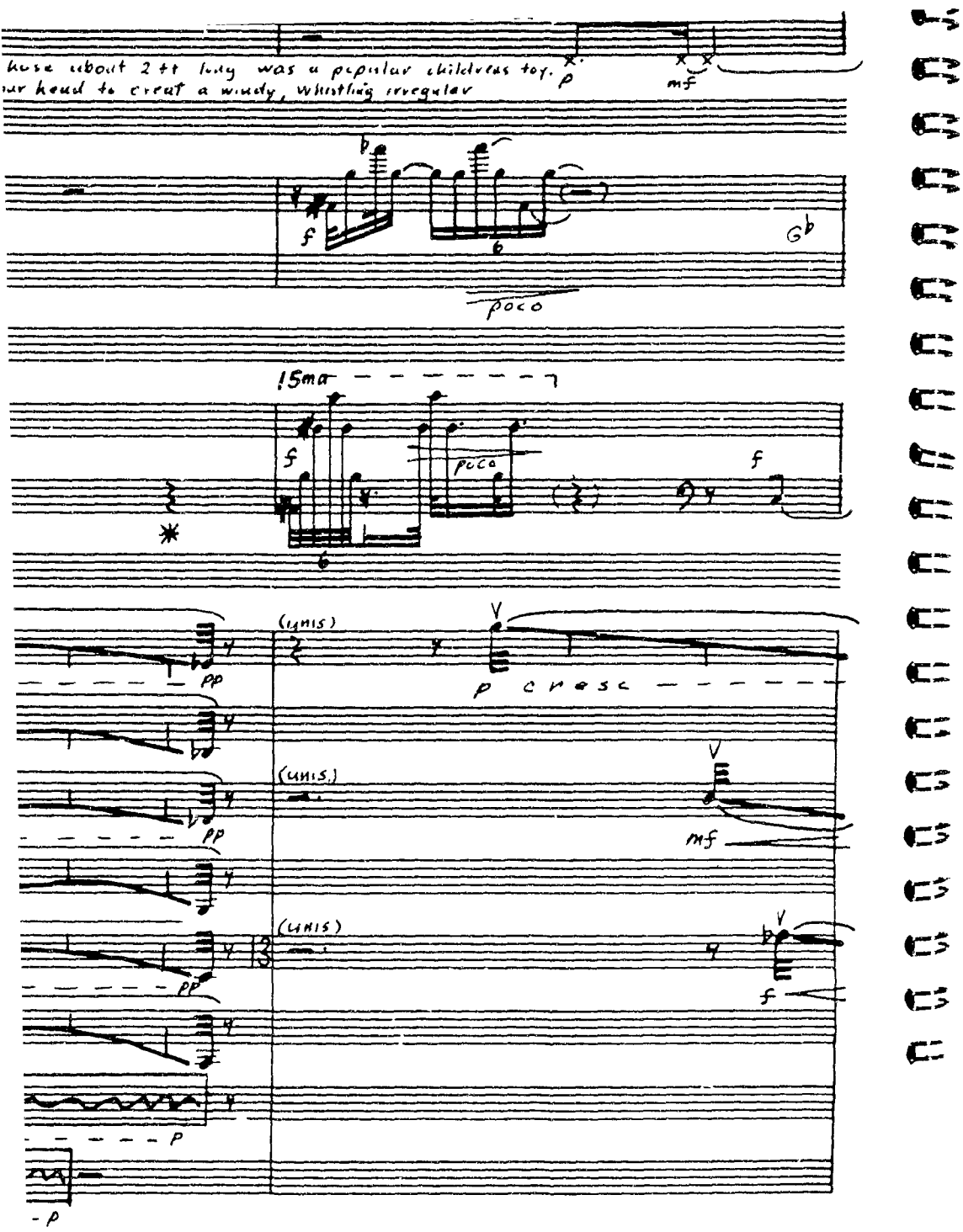

Pno
Strings: slow smoothe gliss.
change bow when necessary, as smoothly as possible
Vln I
div. a2
Vln II
div a2
Vla.
Vlc.
dim.
mp cre sc
mp cresc

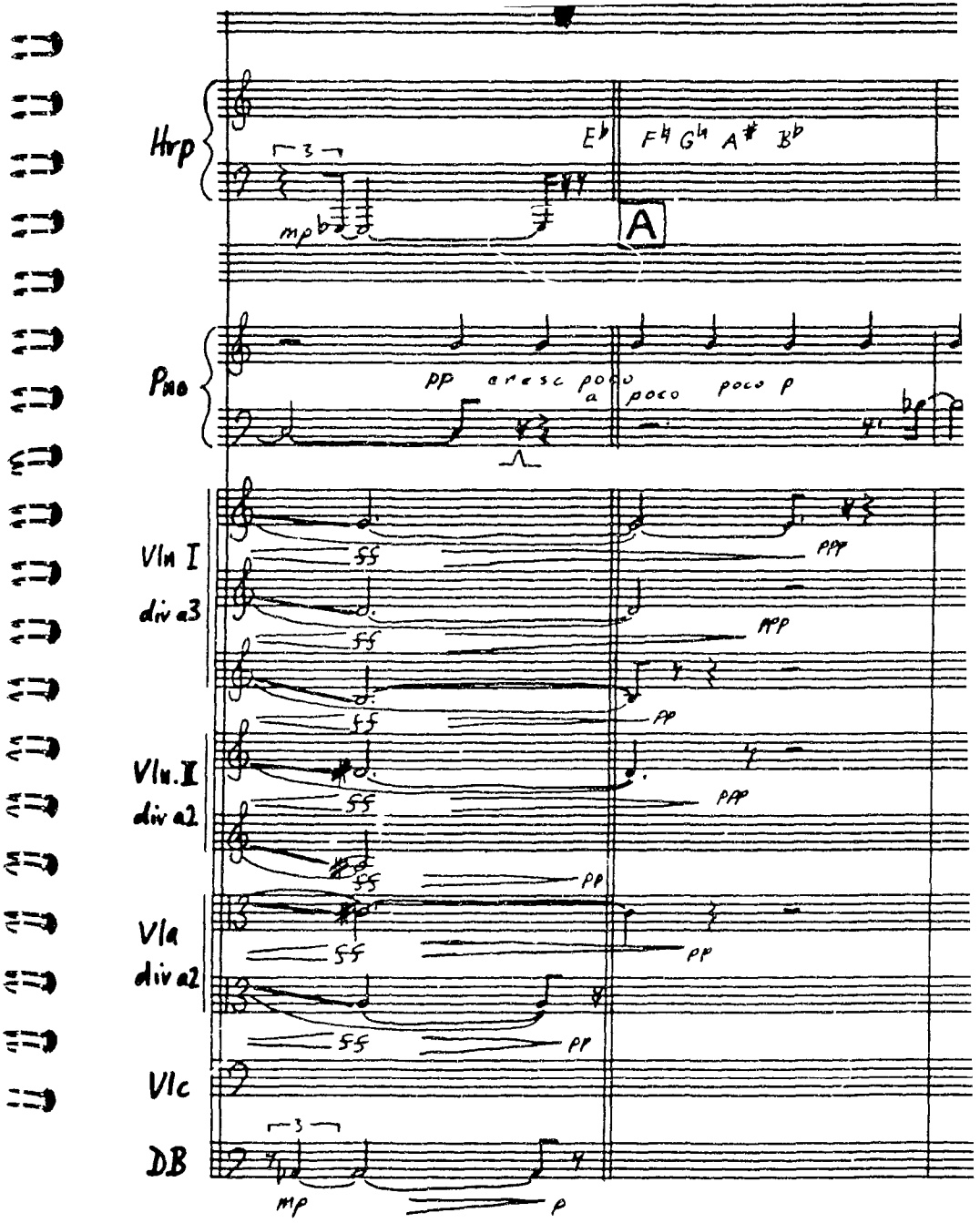

mf cresc.
f
dim. mf cresc
f
dim. mf
f
dim. mf cresc
f
dim mf
dim mf cresc
f
sul pont. (irreg. trem.)
p

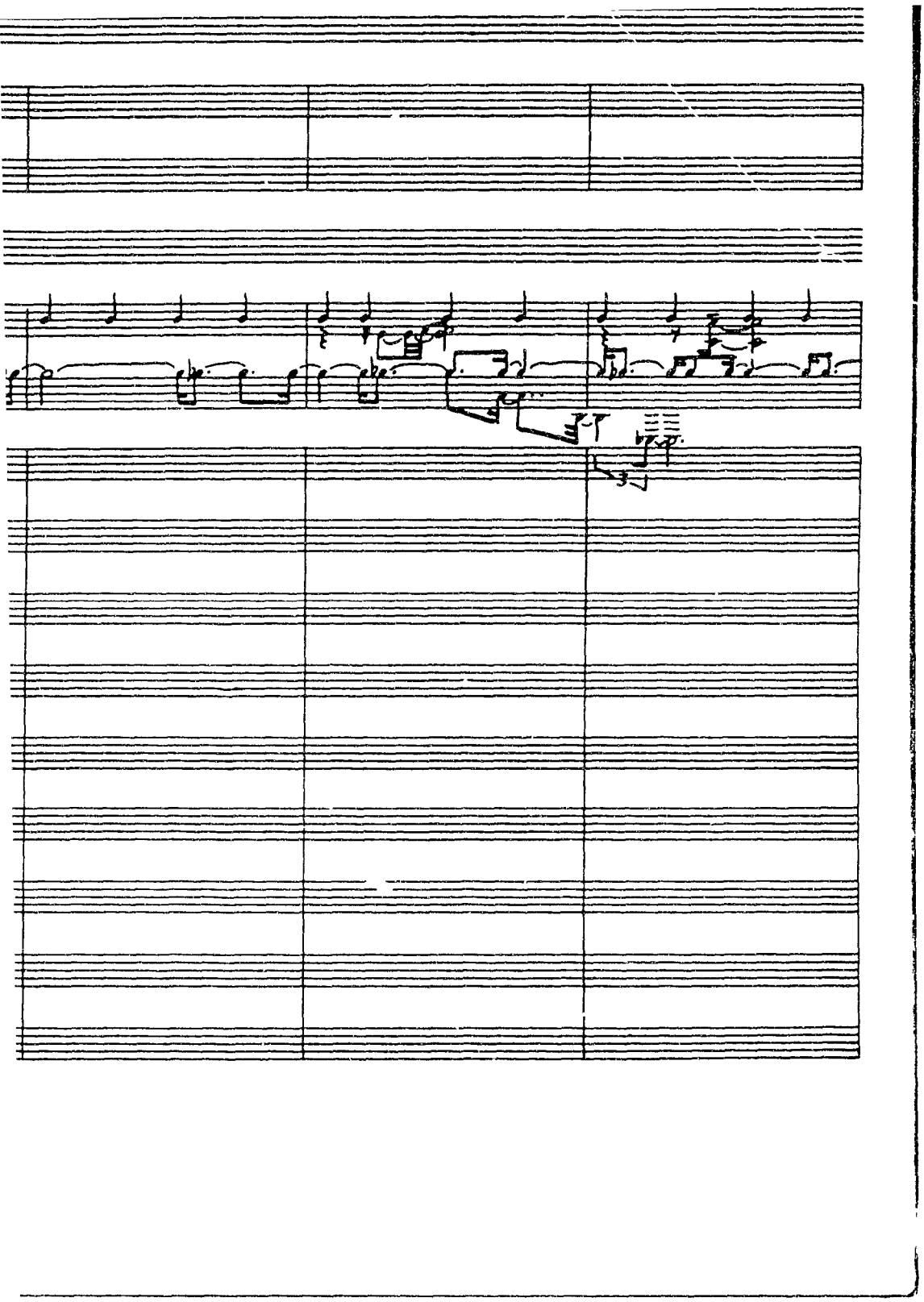

Perc
chimes
ff
xyl
IV
ff
glk
V
ff
with nails
near sound board
ord.
Harp.
mp cresc f dim
D♯ C B E F G♭ A
chromatic clusters
Pno
fff
ff
f
Ped.
I
Vln.
II
div a4
unis.
fff
8va
dim
Vla.
Vlc.
(unis.)
D.B.
div. a2
pizz
slow gliss
mf

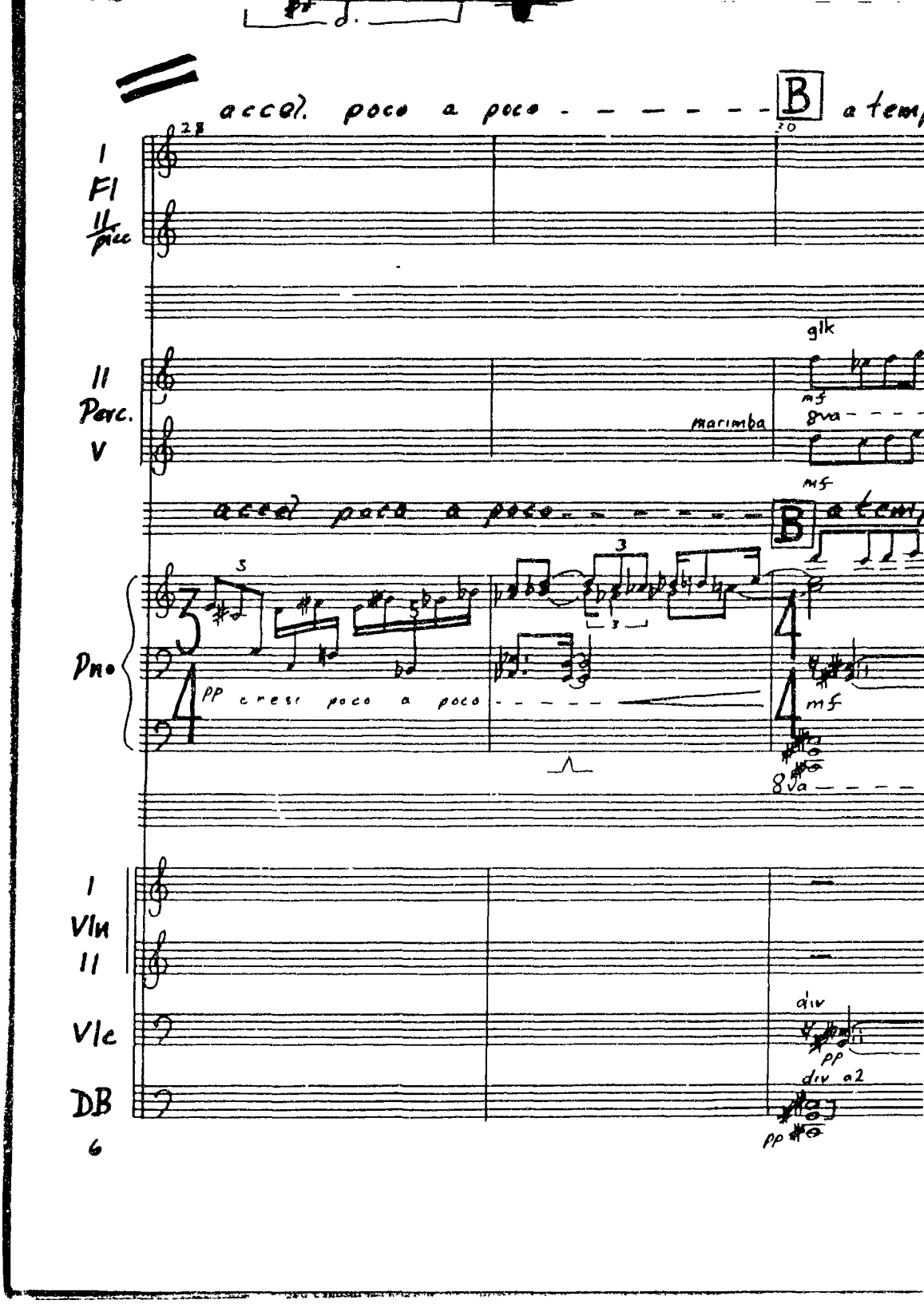

f
dim.
(xyl)
f
dim.
d.
d
mp
ff
dim.
F♯ G♮ A♭
15ma
ff
-)
p
p cresc.
loco
- p
cresc
poco a poco
- p
mp
mf dim
(arco)
-p
mf

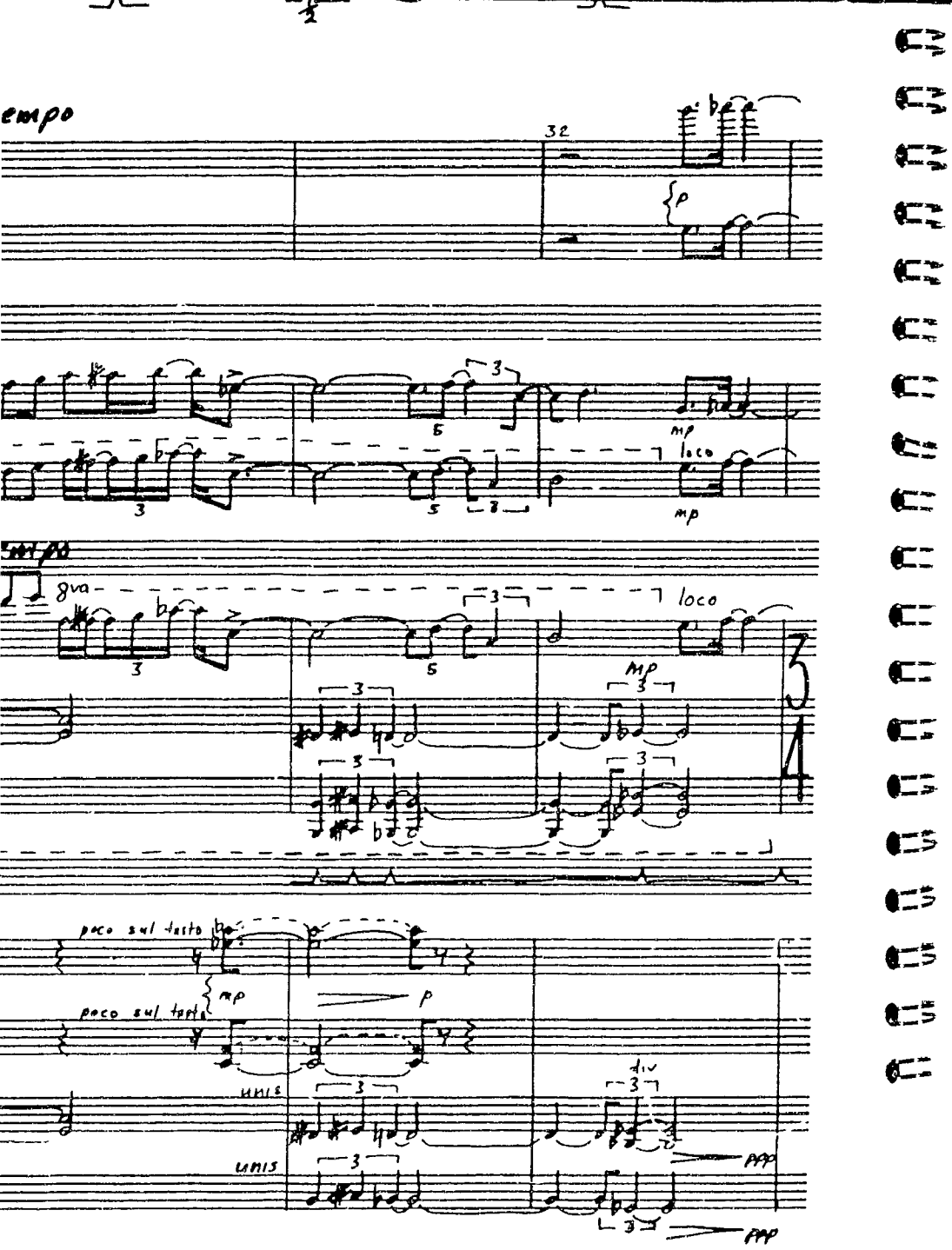

* In the 1970's a corrugated plastic hose (abou
It is swung around in circles over your head to
harmonic series
Hrp
Pno
15ma
dim.
mp
Vln. I
div a2
(cresc)
mf dim.
Vln II
div. a2
mf dim
Vla
div. a2
Vlc.
repeat ad lib.
mp cresc
f dim
DB.
repeat ad lib.
mp cresc. f dim. p
* Vlc & DB.
L H lightly damp 1 or 2 strings
RH jeté, sul pont.


hose about 2 ft long was a popular childrens toy.
ur head to creat a windy, whistling irregular
p
mf
f
Gb
poco
15ma
f
poco
f
(UNIS)
pp
p cresc
(UNIS.)
pp
mf
(UNIS)
pp
f
p
p

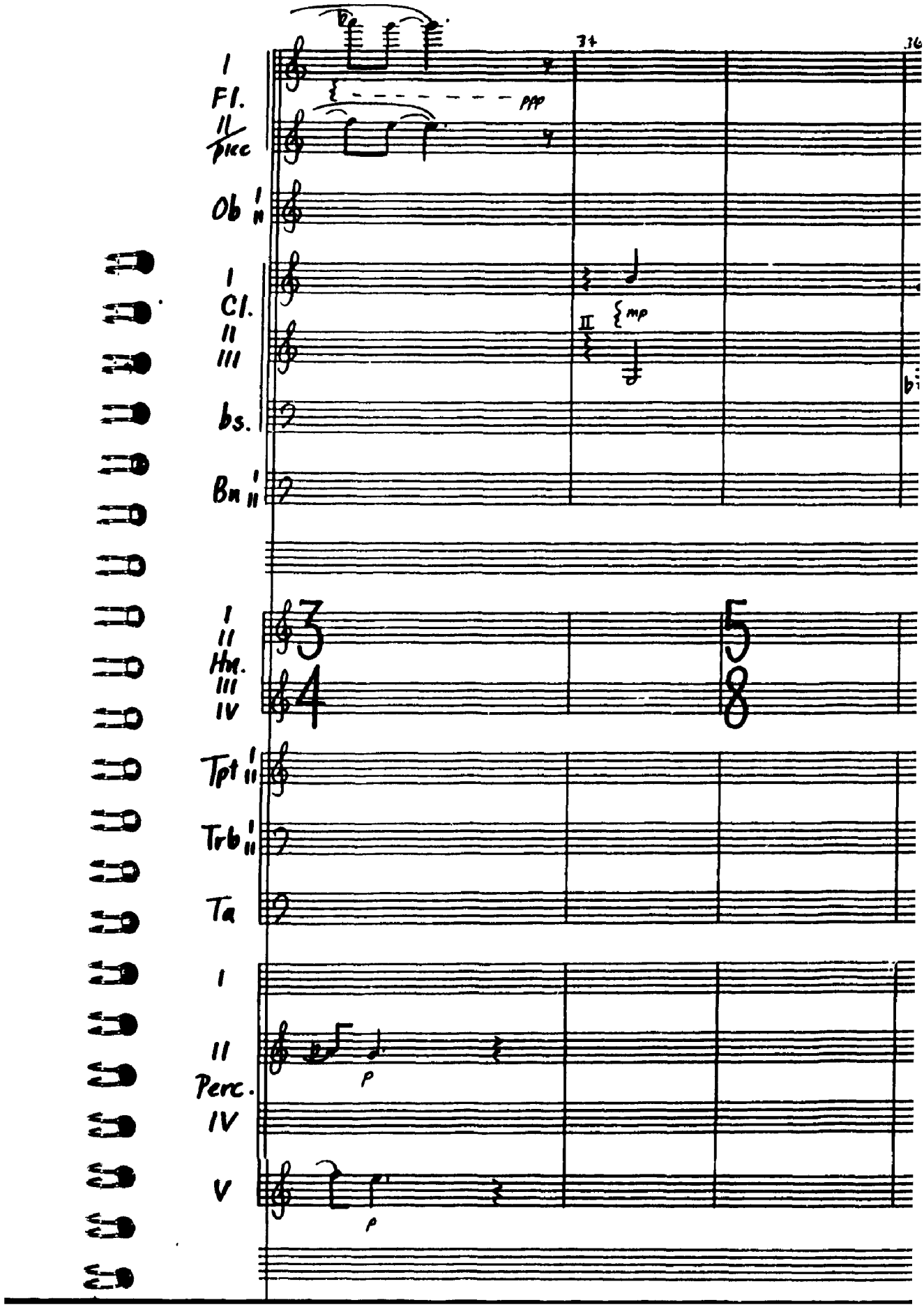

Hrp
E♭ F♮ G♮ A♯ B♭
mp
A
Pno
pp cresc poco a poco poco p
Vln I
div a3
ff
ppp
pp
Vln. II
div a2
Vla
div a2
Vlc
DB
mp
p

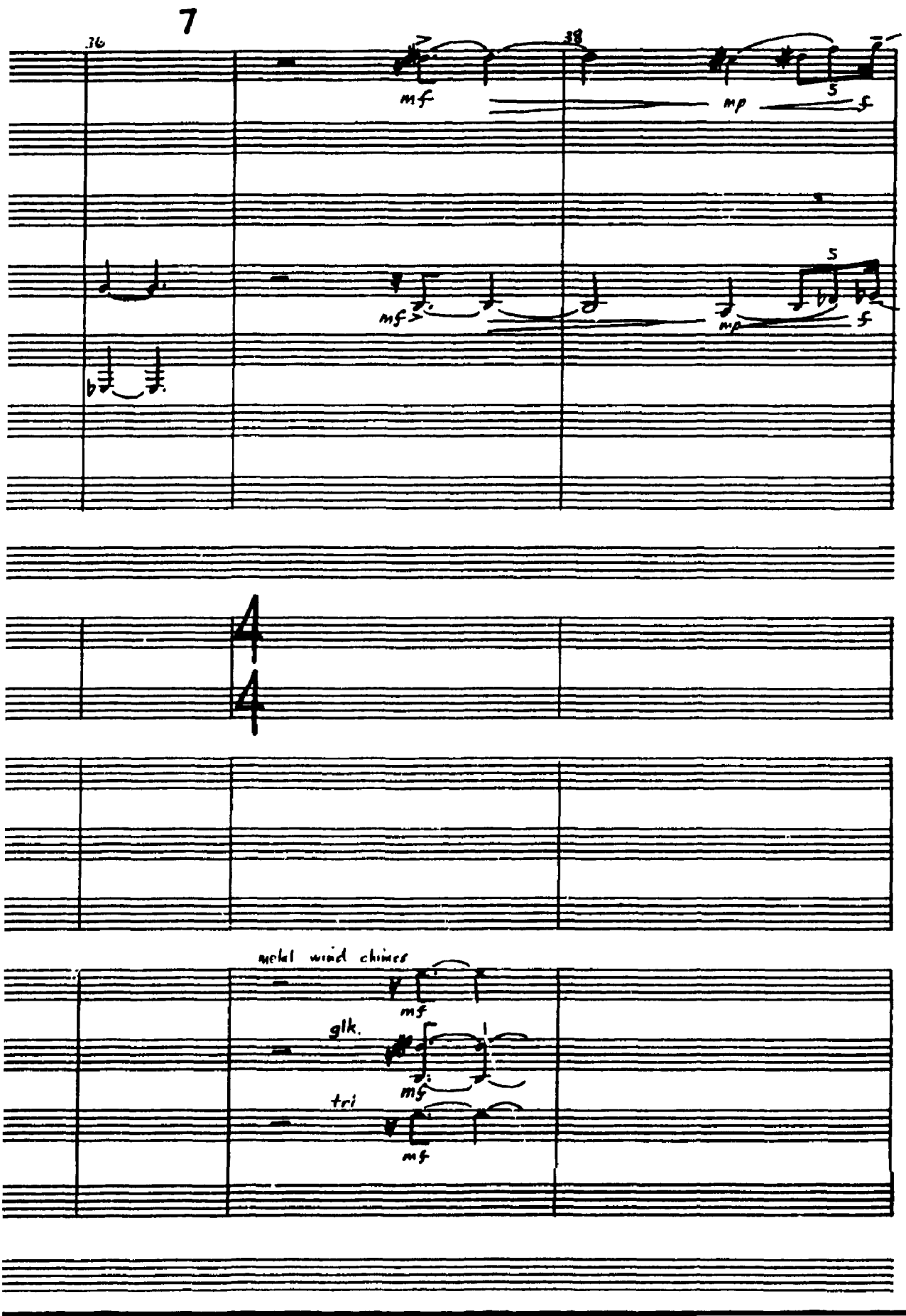


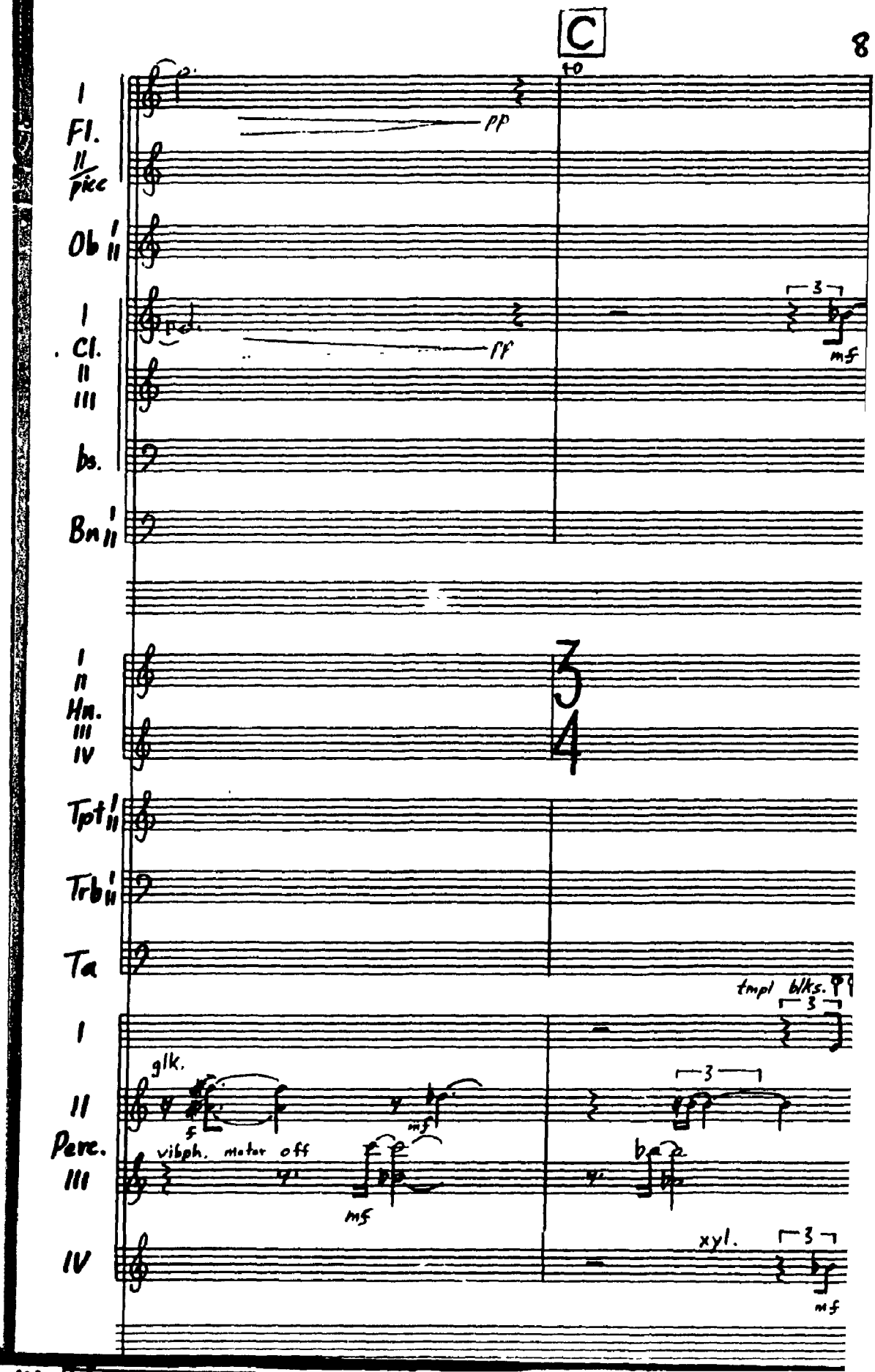

accel. poco a poco
B
a tempo
28
20
I
Fl
II
Picc
II
Perc.
V
glk
mf
8va
marimba
mf
accel. poco a poco
B
a tempo
Pno
pp cresc. poco a poco
mf
8va
I
Vln
II
Vlc
div
pp
DB
div a2
pp
6

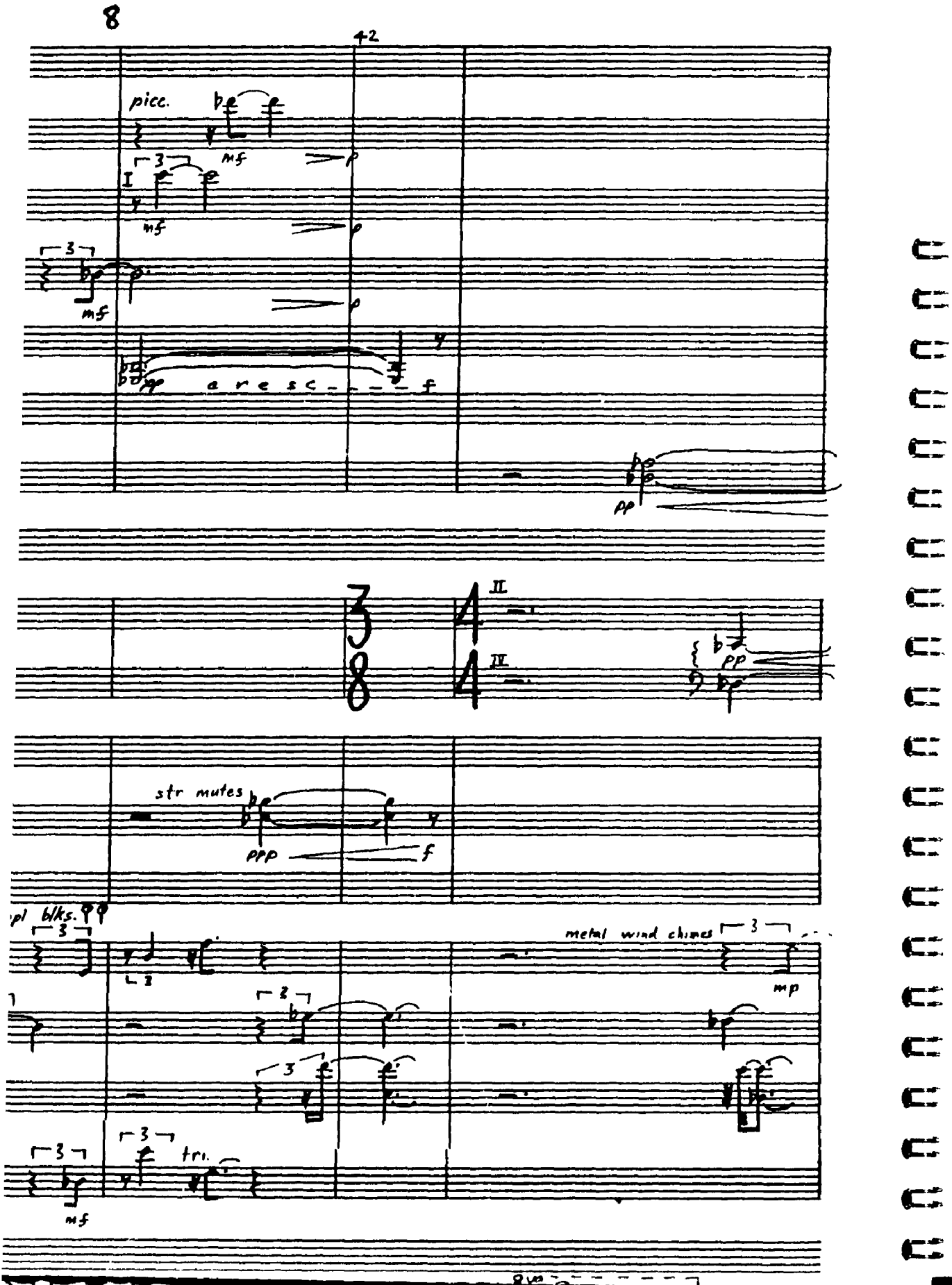


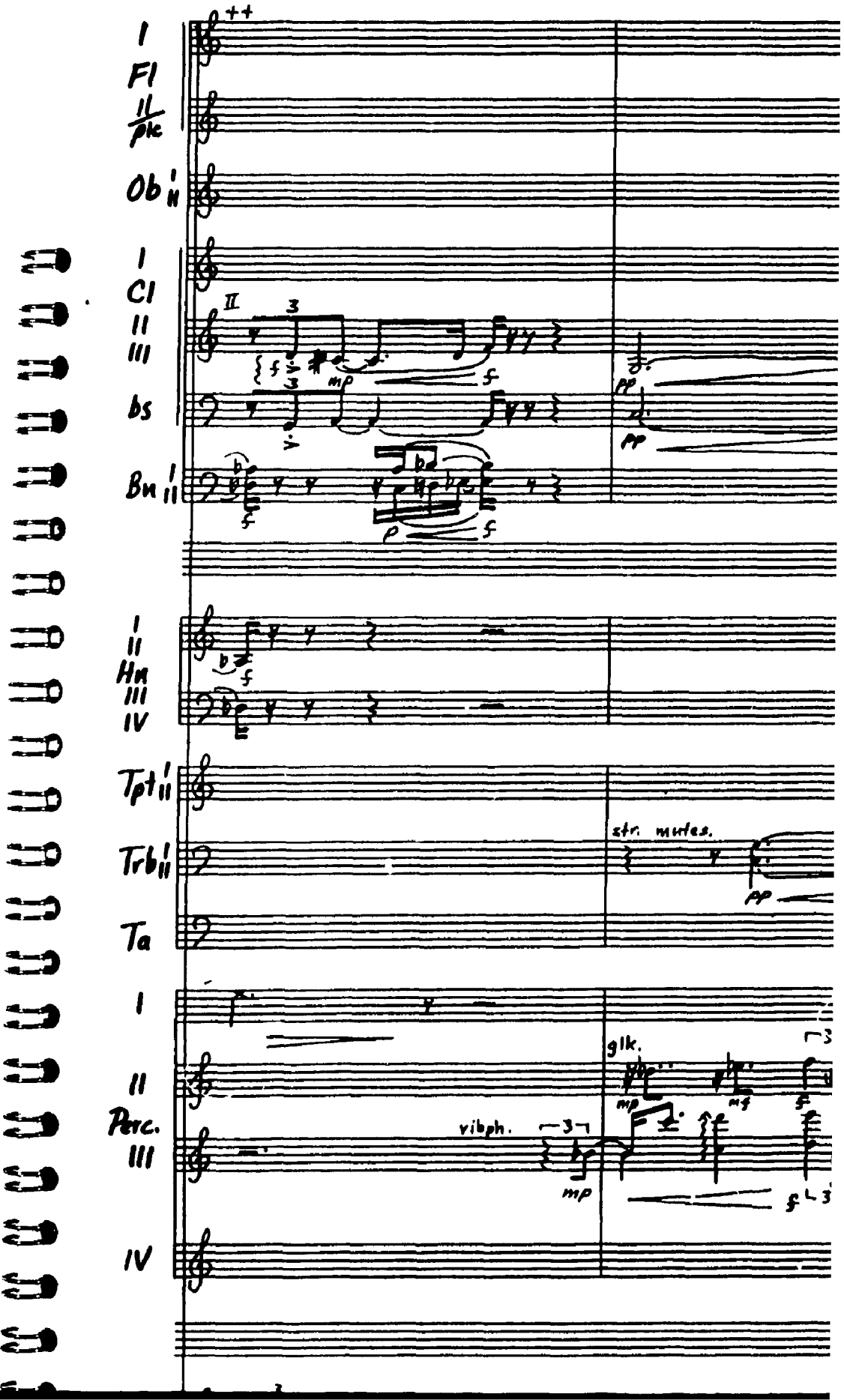
empo
32
p
mp
loco
mp
8va
loco
mp
poco sul tasto
mp
p
poco sul tasto
unis
div
unis
ppp
ppp

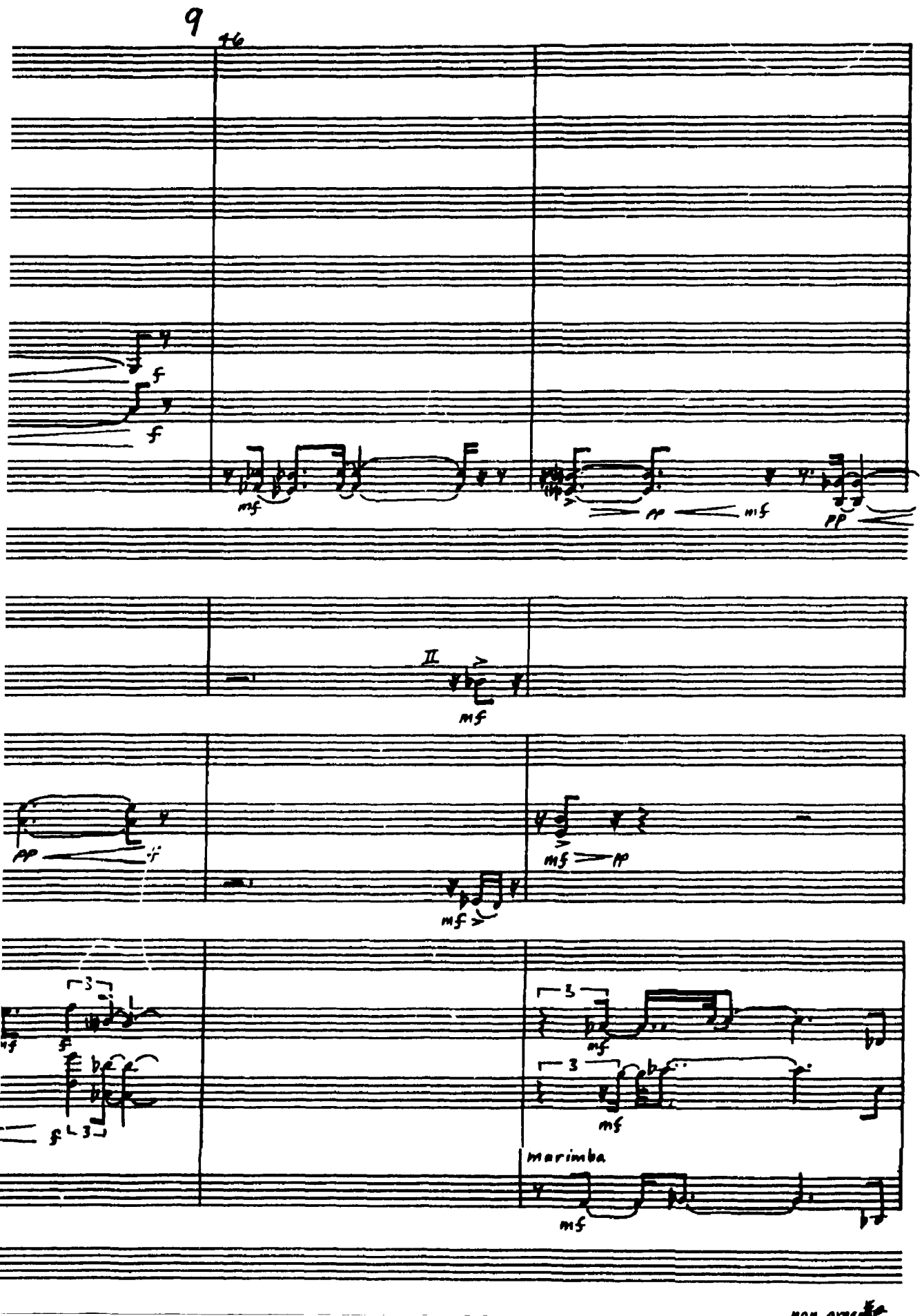

I
Fl.
II
Picc
Ob I II
I
Cl.
II
III
bs.
Bn I II
I
II
Hn.
III
IV
Tpt I II
Trb I II
Tu
I
II
Perc.
IV
V
p
p
mp
ppp

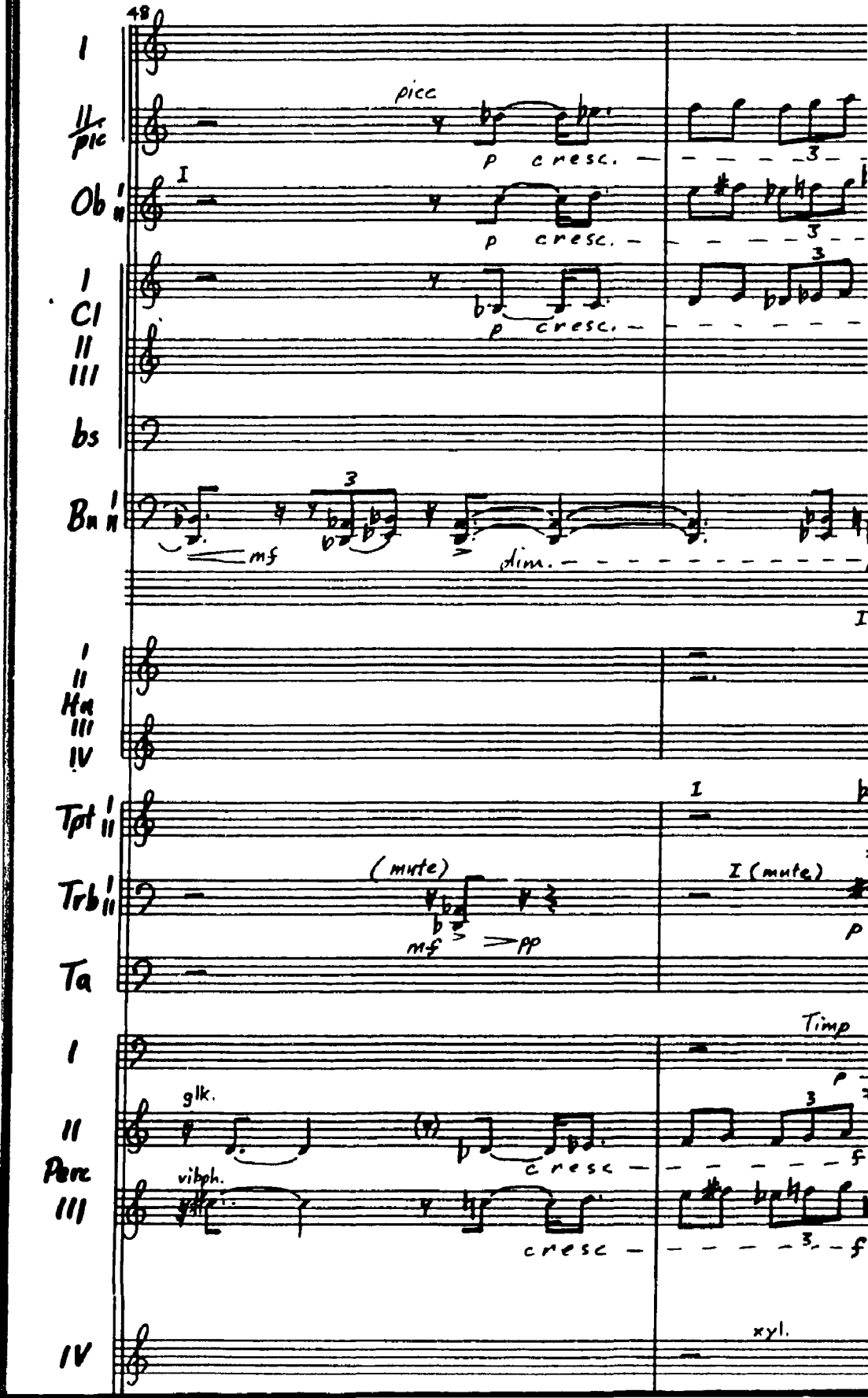

7
36
38
mf
mp
f
5
mf
mp
f
5
4
4
metal wind chimes
mf
glk.
mf
tri
mf


C
to
I
Fl.
II
Pic
Ob I II
I
Cl.
II
III
bs.
Bn I II
pp
ff
3
mf
I
II
Hn.
III
IV
3
4
Tpt I II
Trb I II
Tu
tmpl blks.
3
I
glk.
II
Perc.
III
IV
f
vibph. motor off
mf
mf
3
b
xyl.
3
mf


8
42
picc.
mf
p
I
mf
p
mf
p
pp
a r e s c
f
pp
II
IV
pp
str mutes
ppp
f
pl blks.
metal wind chimes
mp
tri.
mf
tri.


I
Fl
II/
pic
Ob I
II
I
Cl
II
III
bs
Bn I
II
I
II
Hn
III
IV
Tpt I
II
Trb I
II
Ta
I
II
Perc.
III
IV
str. mutes.
pp
glk.
vibph.
mp
mf
f


9
46
mf
pp
mf
pp
II
mf
pp
if
mf
pp
mf
3
mf
3
mf
marimba
mf


48
I
II
picc
Ob
I
II
p cresc.
Cl
I
II
III
bs
Bn
I
II
mf
dim.
Hn
I
II
III
IV
Tpt
I
II
I
Trb
I
II
(mute)
mf
pp
I (mute)
p
Ta
Timp
I
glk.
II
cresc
Perc
vibph.
III
cresc
f
IV
xyl.

D

50

dim poco a poco

a2

I (open)

II mute

III stopped

I (open)

II mute

dim poco a poco

Timp soft timp sticks

chimes

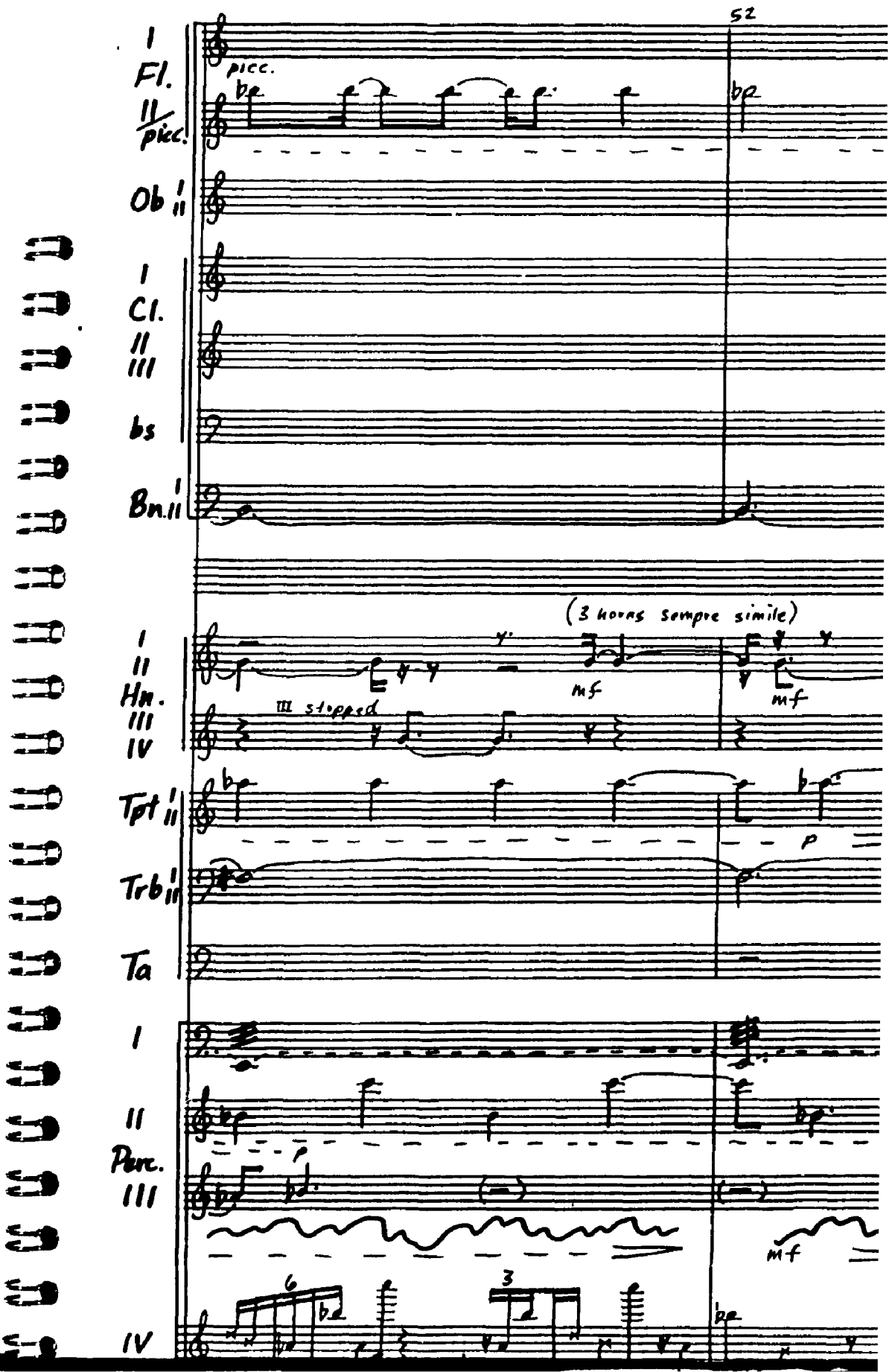
dim. poco a poco

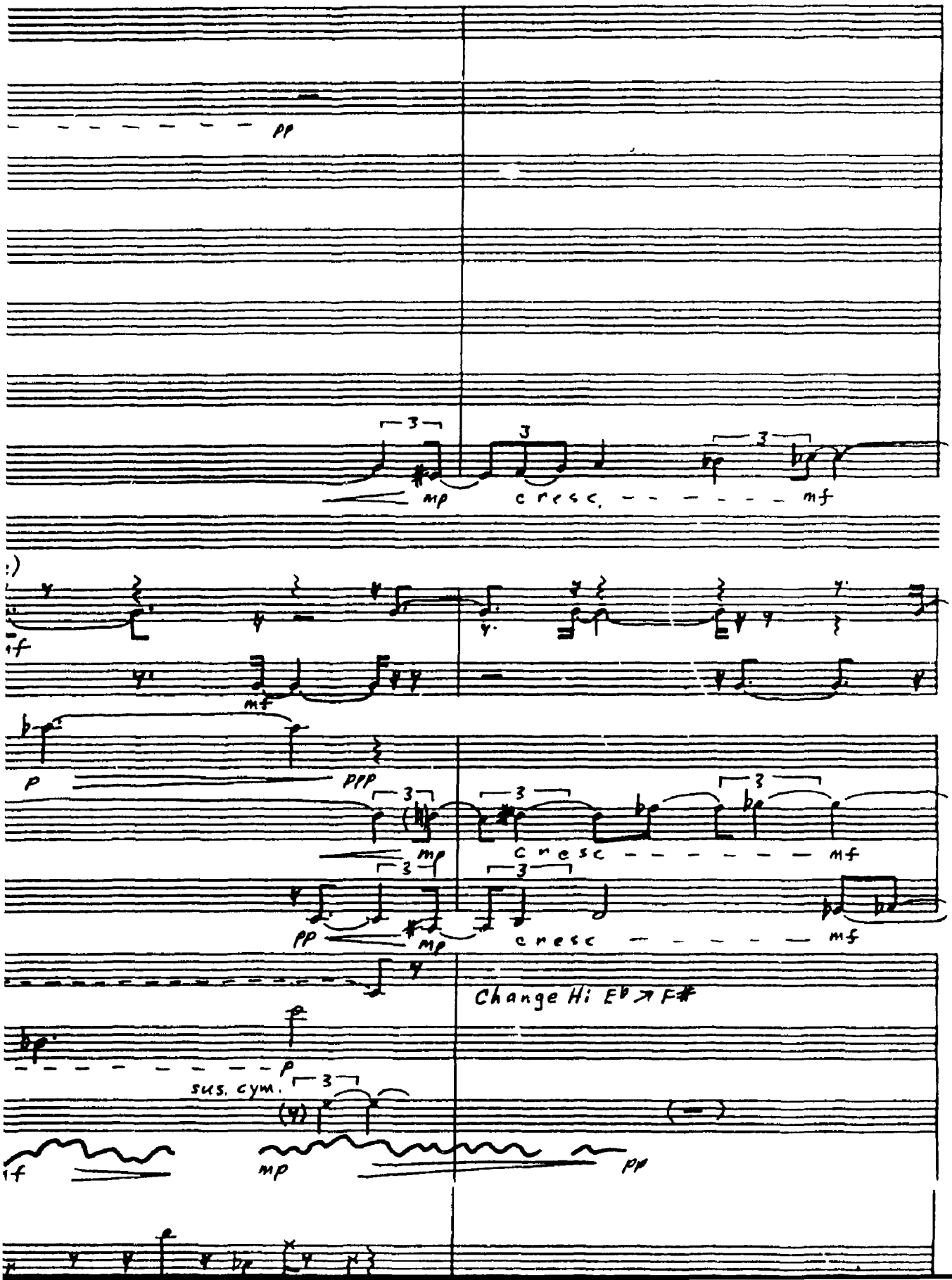
corrugated plastic hose: swing around in the air

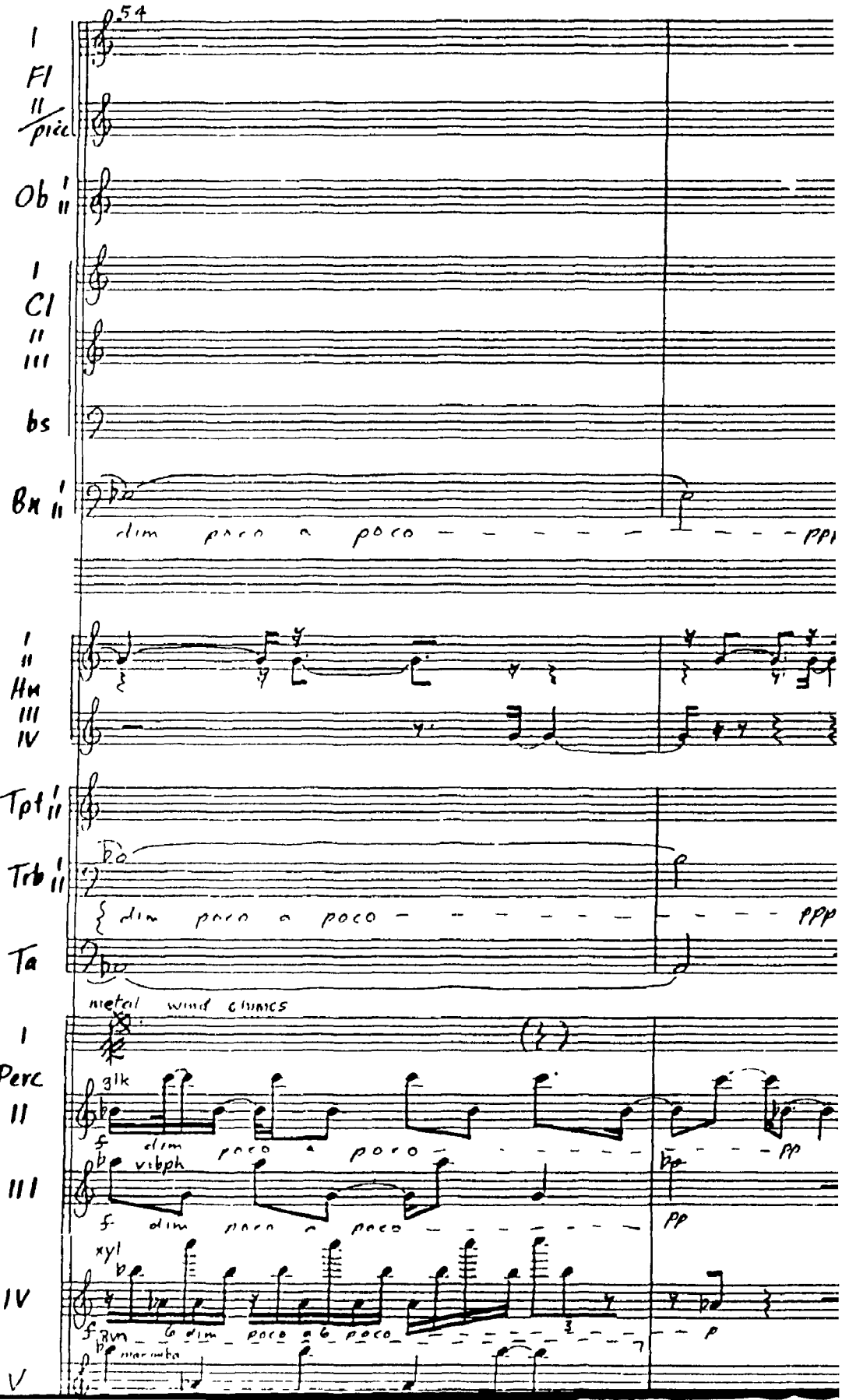
dim. poco a poco

xyl.

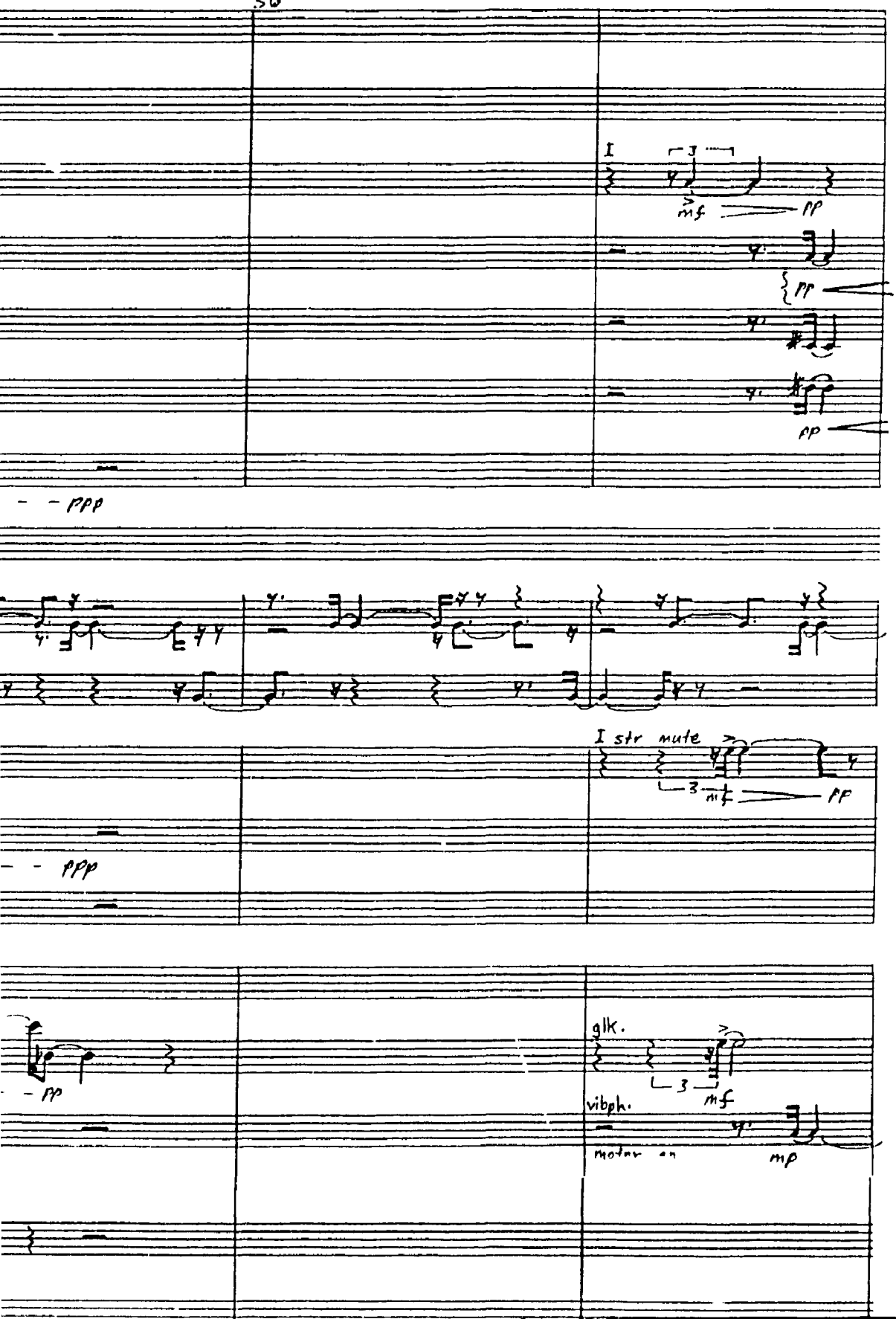
tmpl blks

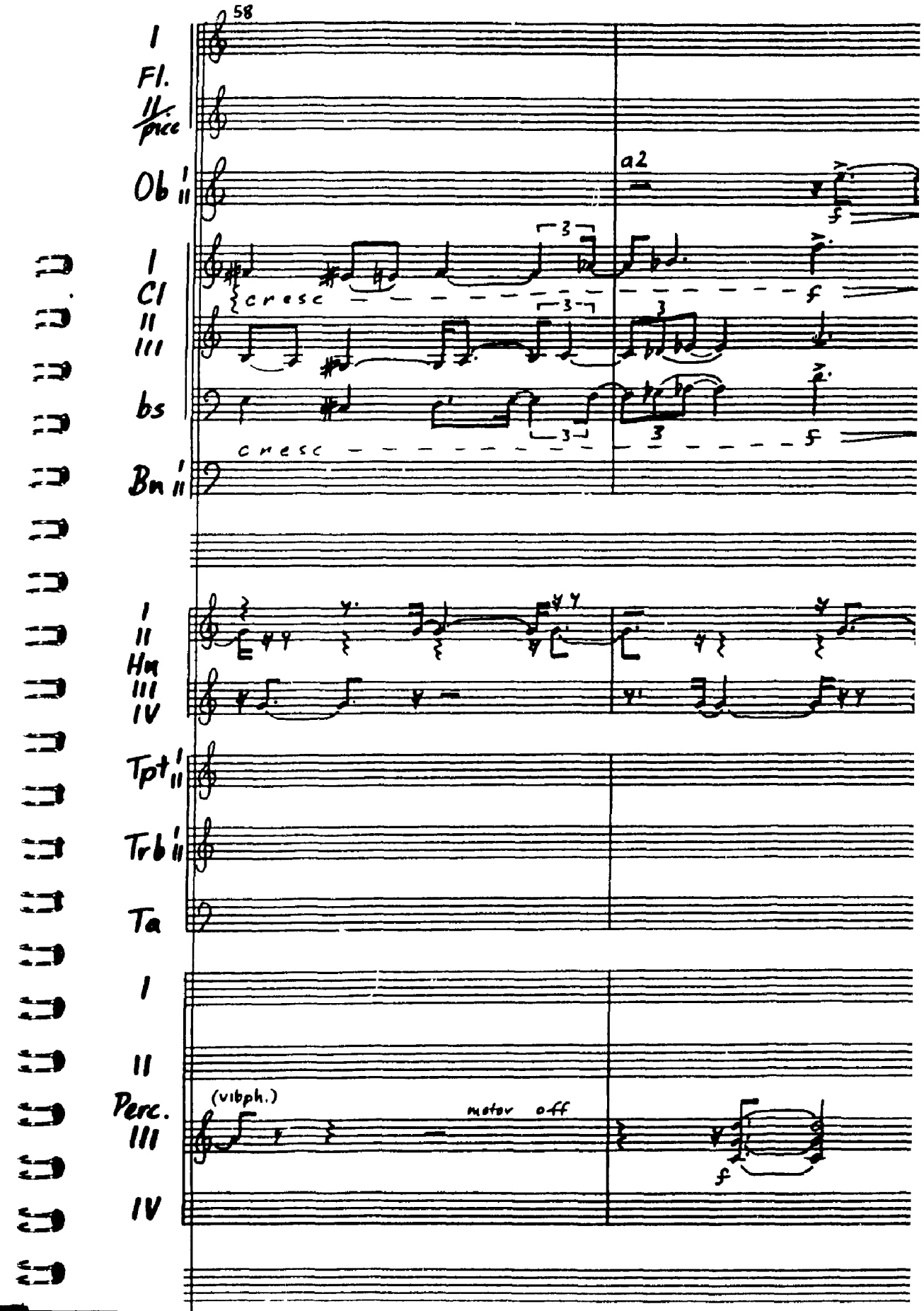

52
I
Fl.
II
picc.
picc.
Ob I II
I
Cl.
II
III
bs
Bn. I II
(3 horns sempre simile)
I
II
Hn.
III
IV
III stopped
mf
mf
Tpt I II
Trb I II
Ta
I
II
Perc.
III
p
mf
6
3
IV

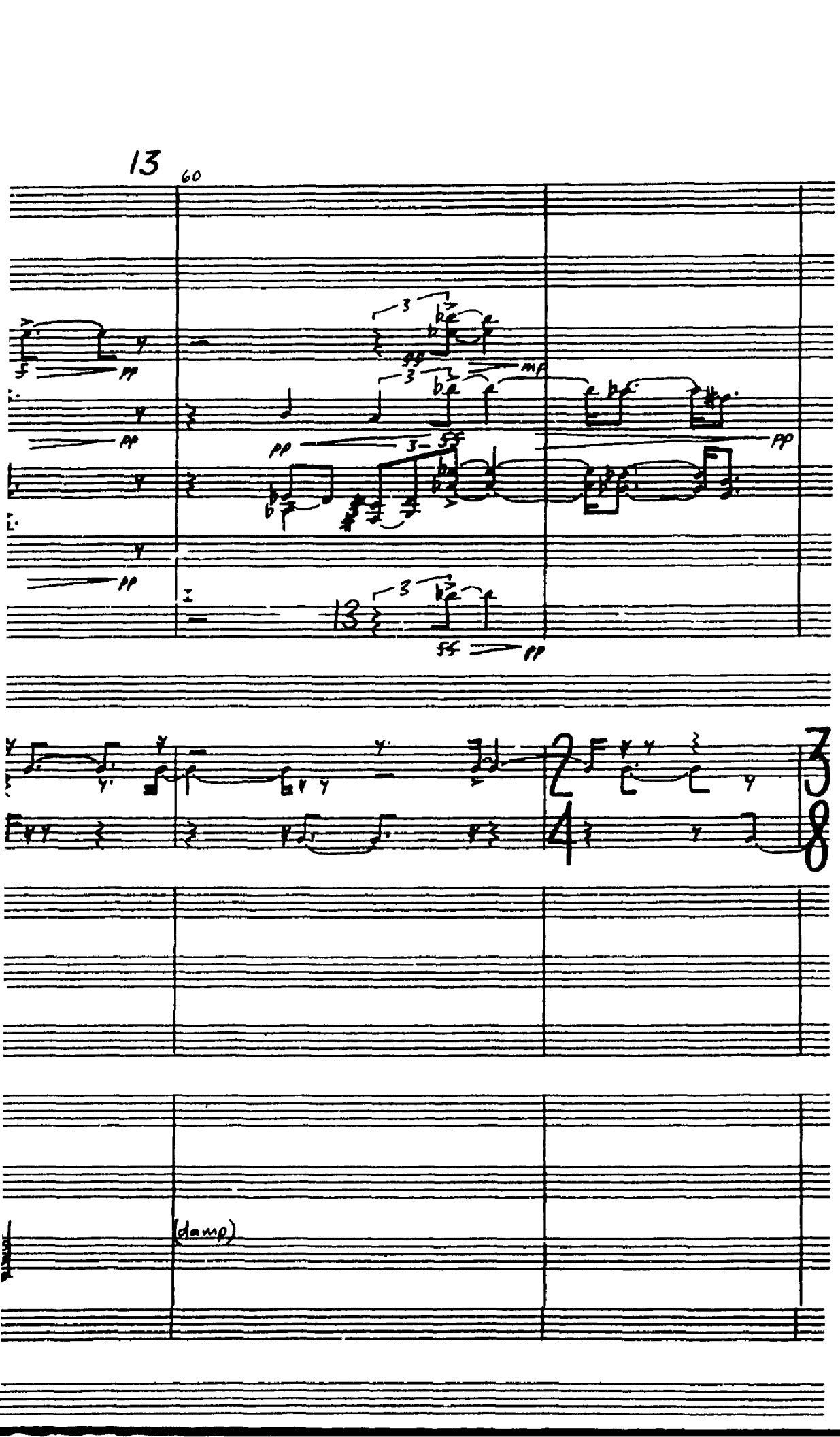

pp
3
mp
cresc.
mf
mf
p
ppp
mp
cresc
mf
pp
mp
cresc
mf
Change Hi Eb → F#
p
sus. cym.
mp
pp

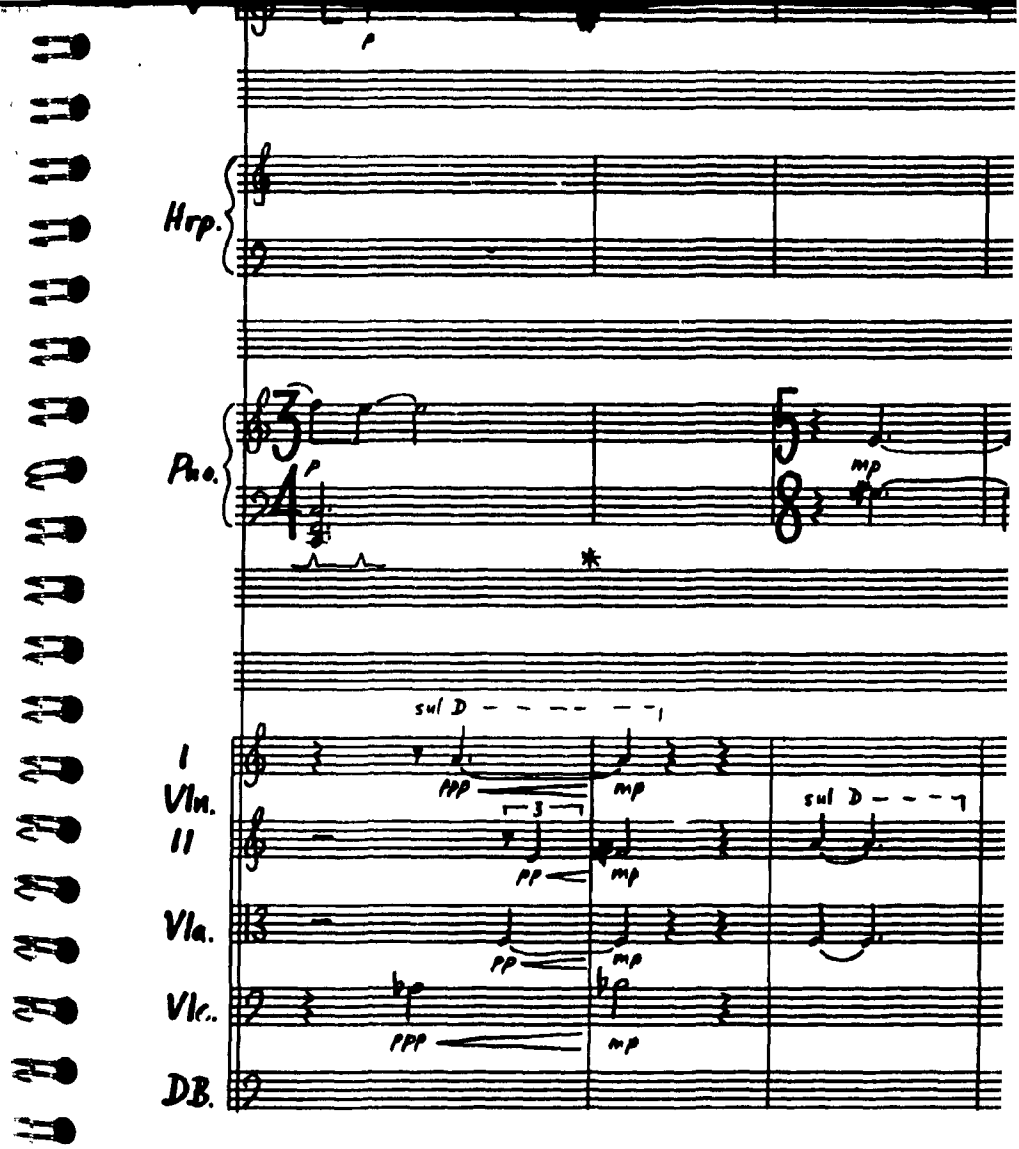

54
I
Fl
II
picc
Ob I
II
I
Cl
II
III
bs
Bn I
II
dim poco a poco
ppp
I
II
Hn
III
IV
Tpt I
II
Trb I
II
dim poco a poco
ppp
Ta
metal wind chimes
I
Perc
II
glk
f
dim
poco a poco
pp
III
vibph
f dim poco a poco
pp
IV
xyl
f
8va
dim
poco a poco
p
V
marimba

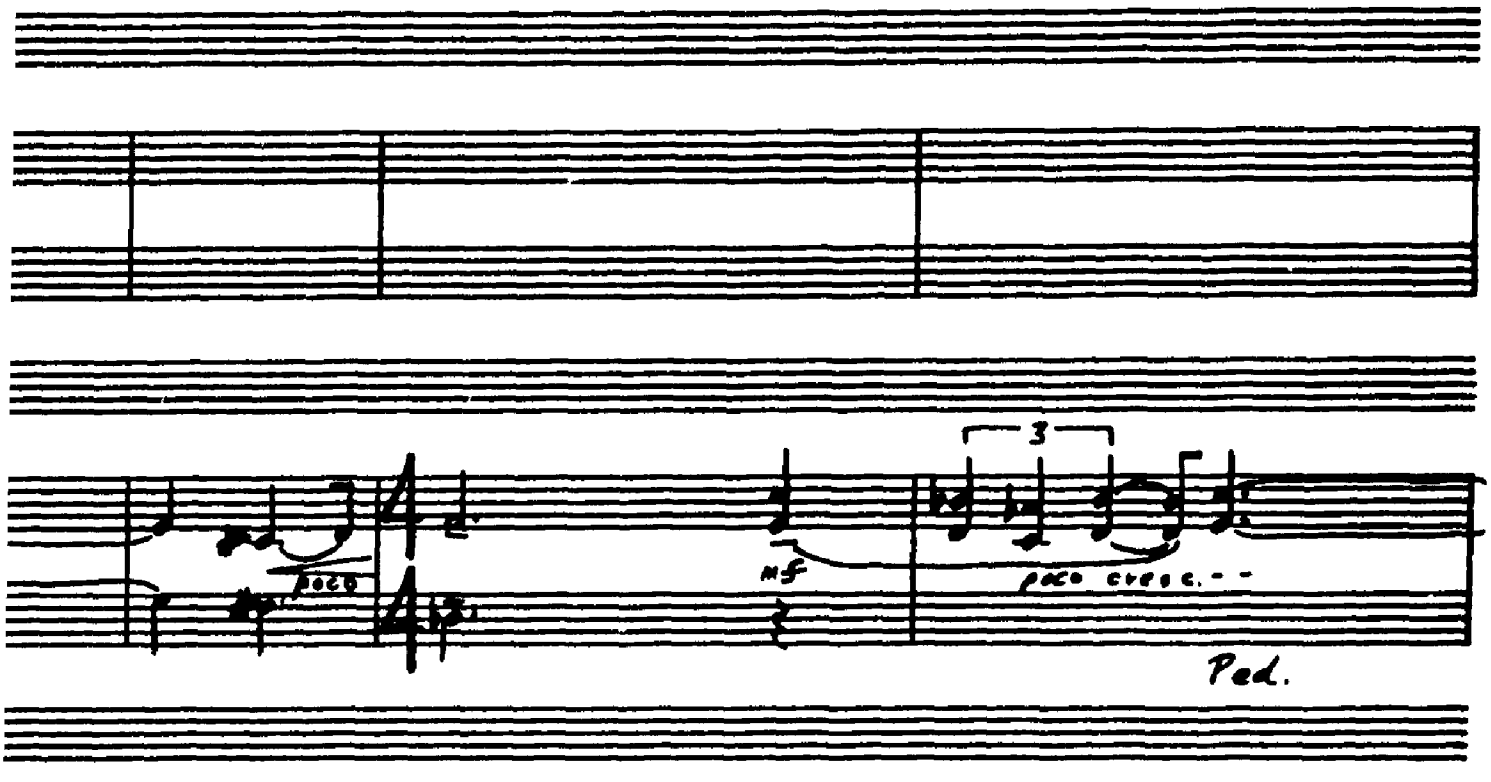
56

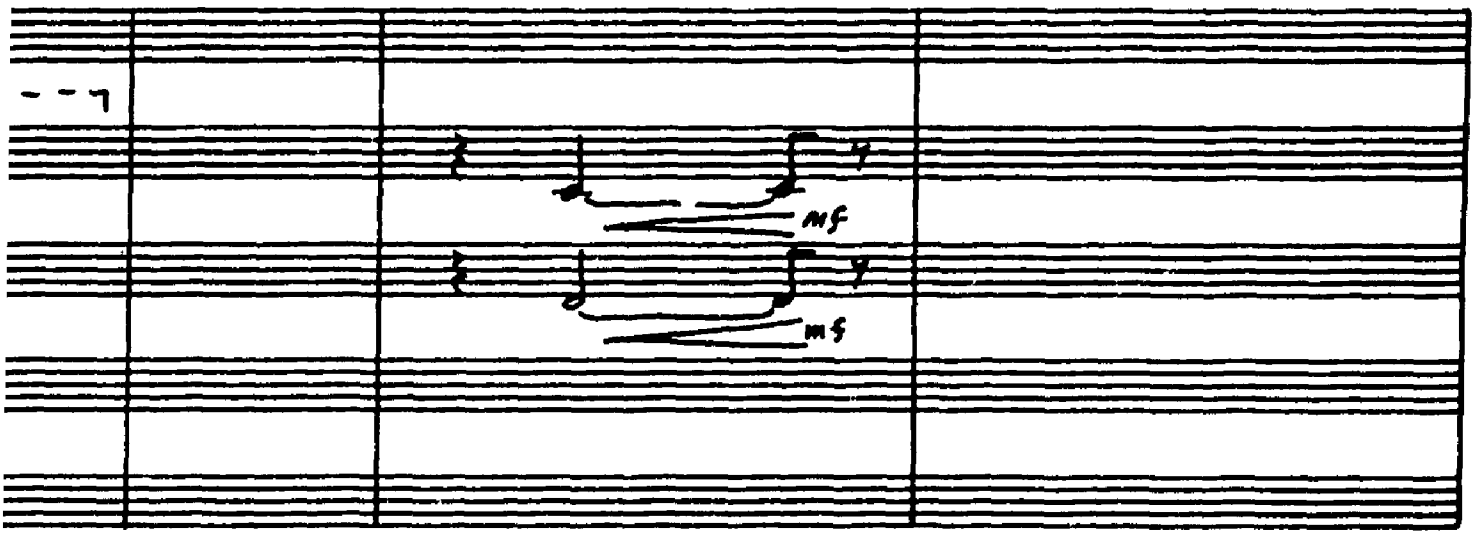


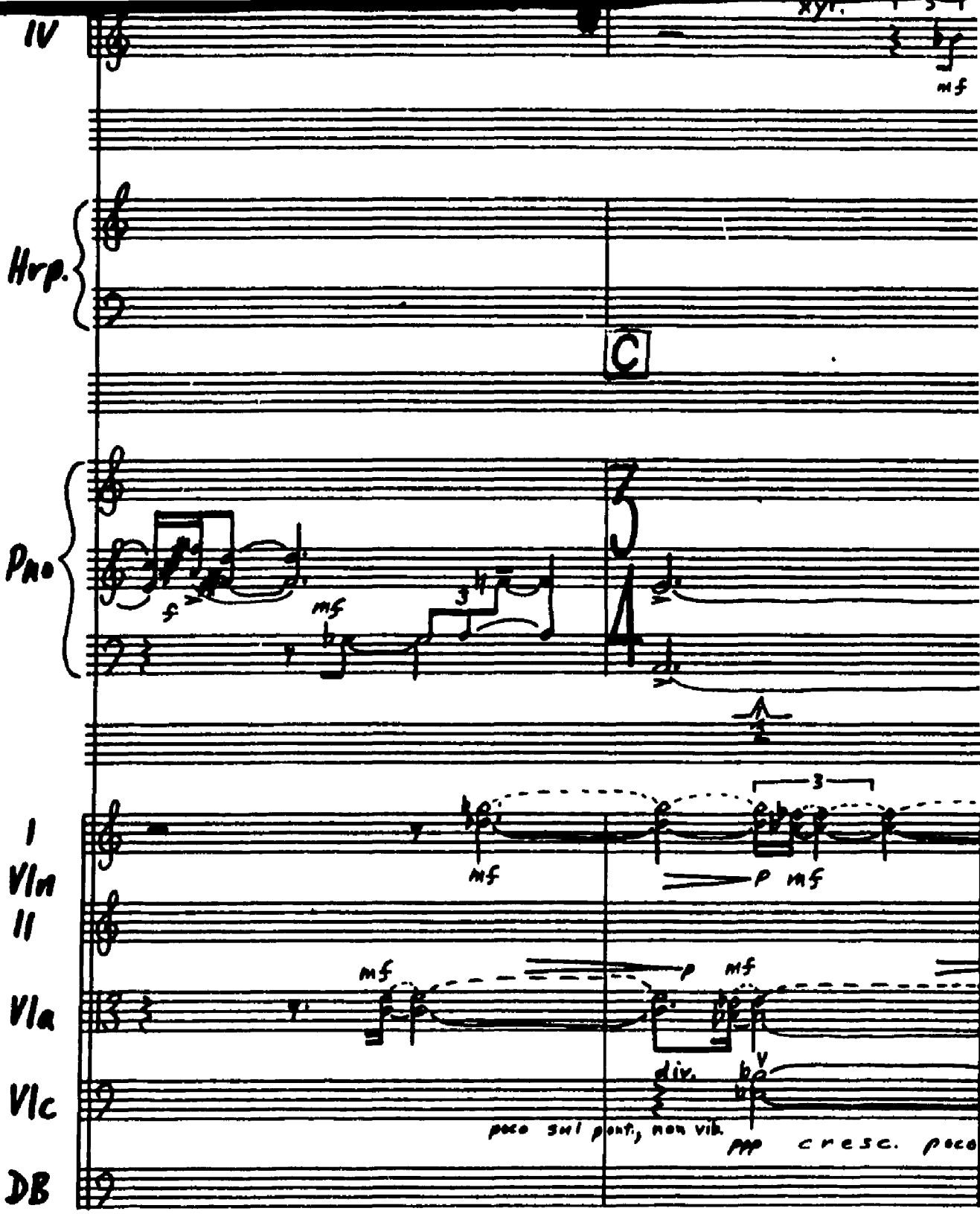

58
I
Fl.
II/picc
Ob I II
a2
I
Cl
II
III
cresc
bs
cresc
Bn I II
I
II
Hn
III
IV
Tpt I II
Trb I II
Ta
I
II
Perc.
III
(vibph.)
motor off
IV

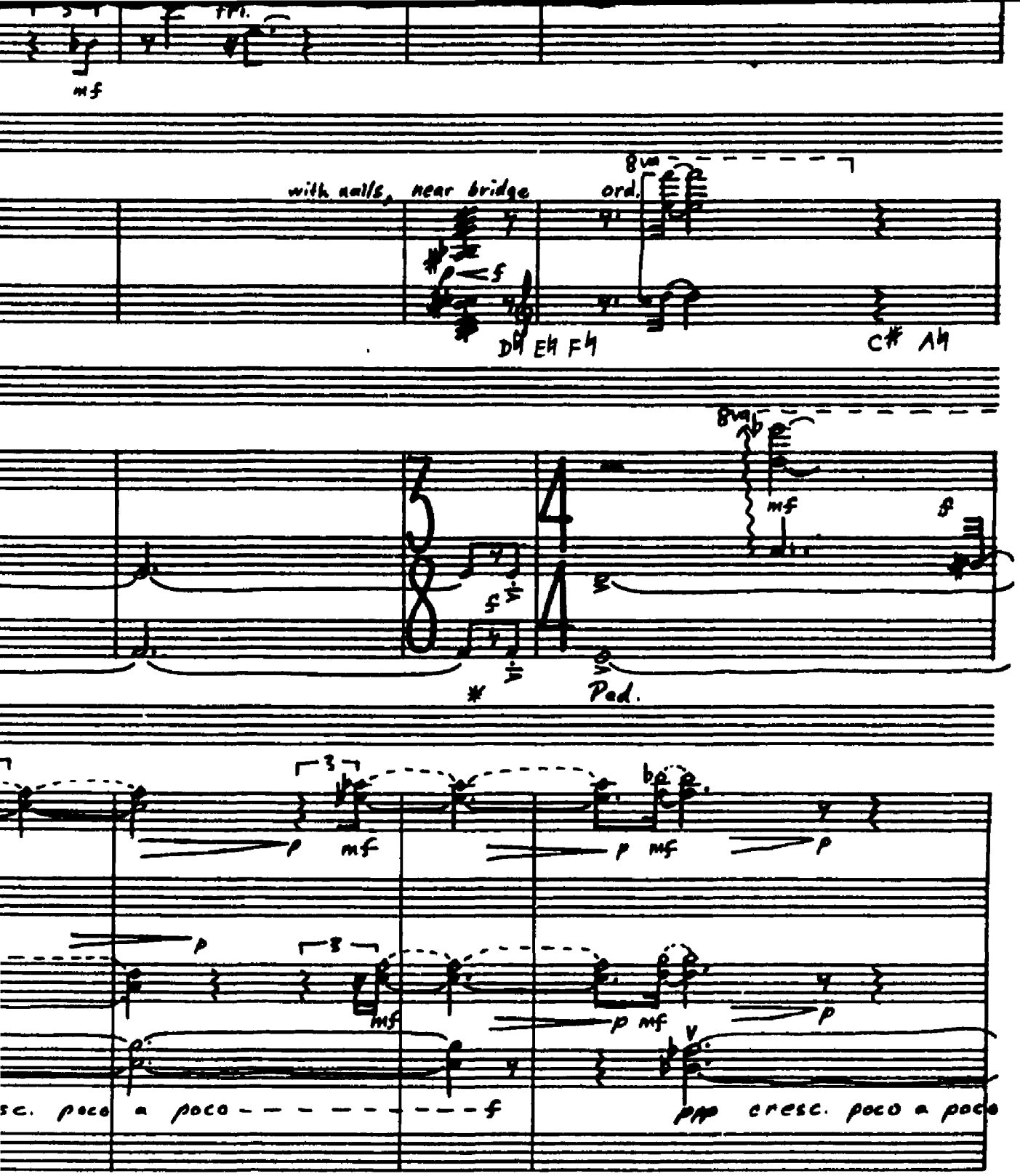

13
60
(damp)


Hrp.
Pno.
sul D
I
Vln.
II
Vla.
Vlc.
DB.
ppp
mp
pp
mp
pp
mp
ppp
mp
sul D

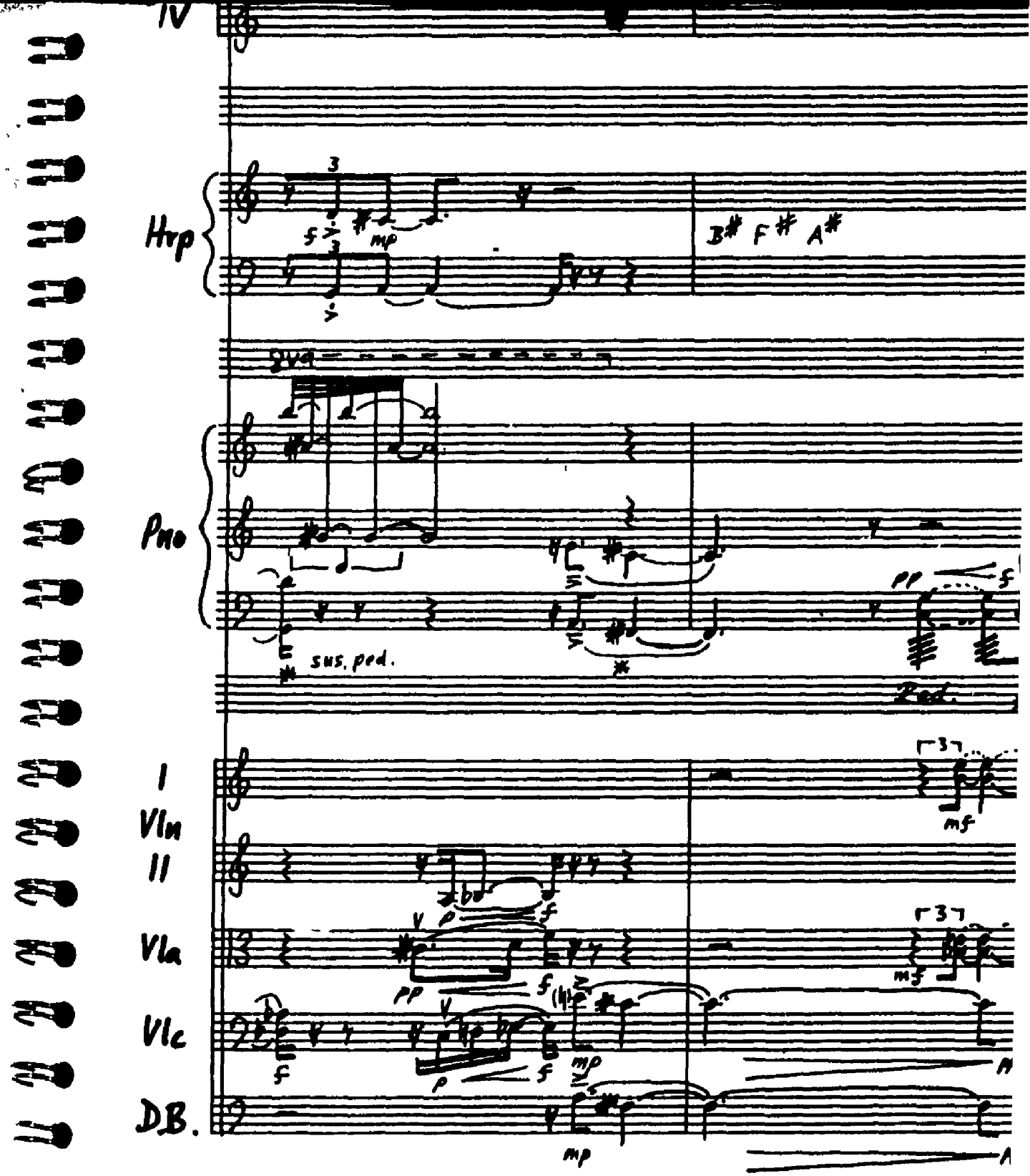

3
mf
poco cresc.
Ped.

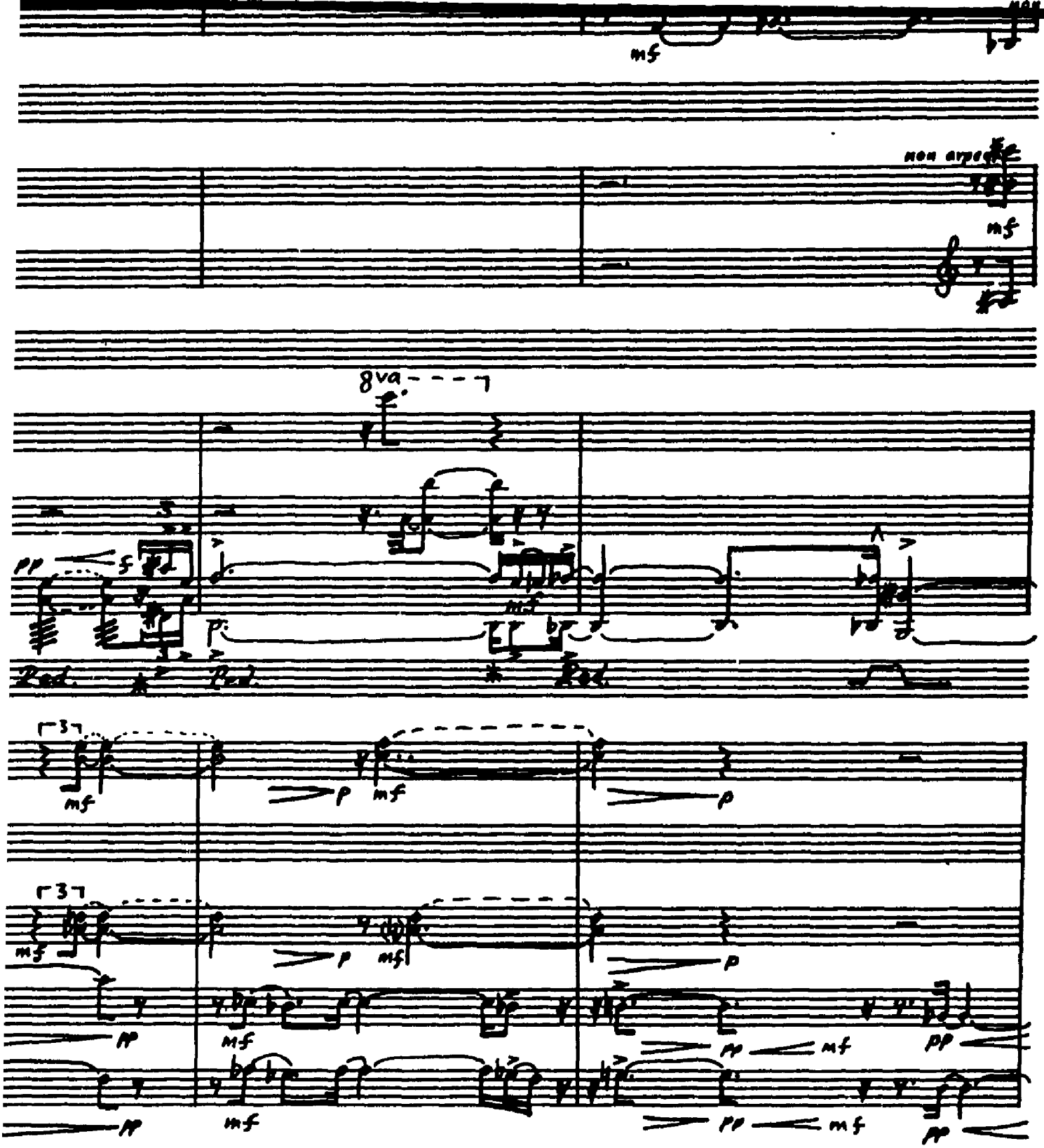

mf
mf

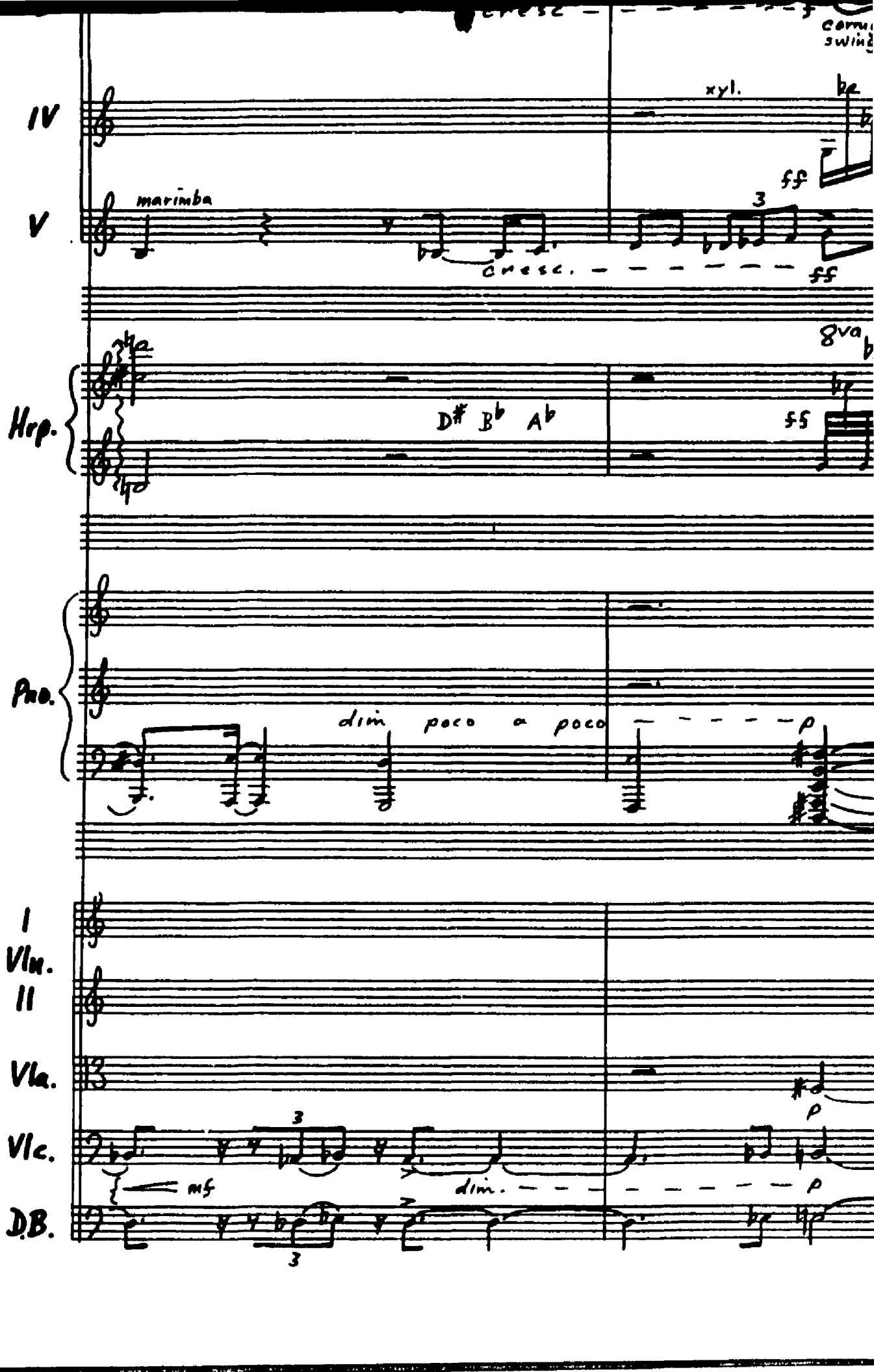

IV
Hrp.
C
Pno
f
mf
3
4
I
Vln
II
Vla
Vlc
DB
mf
p
div.
poco sul pont., non vib.
ppp
cresc. poco

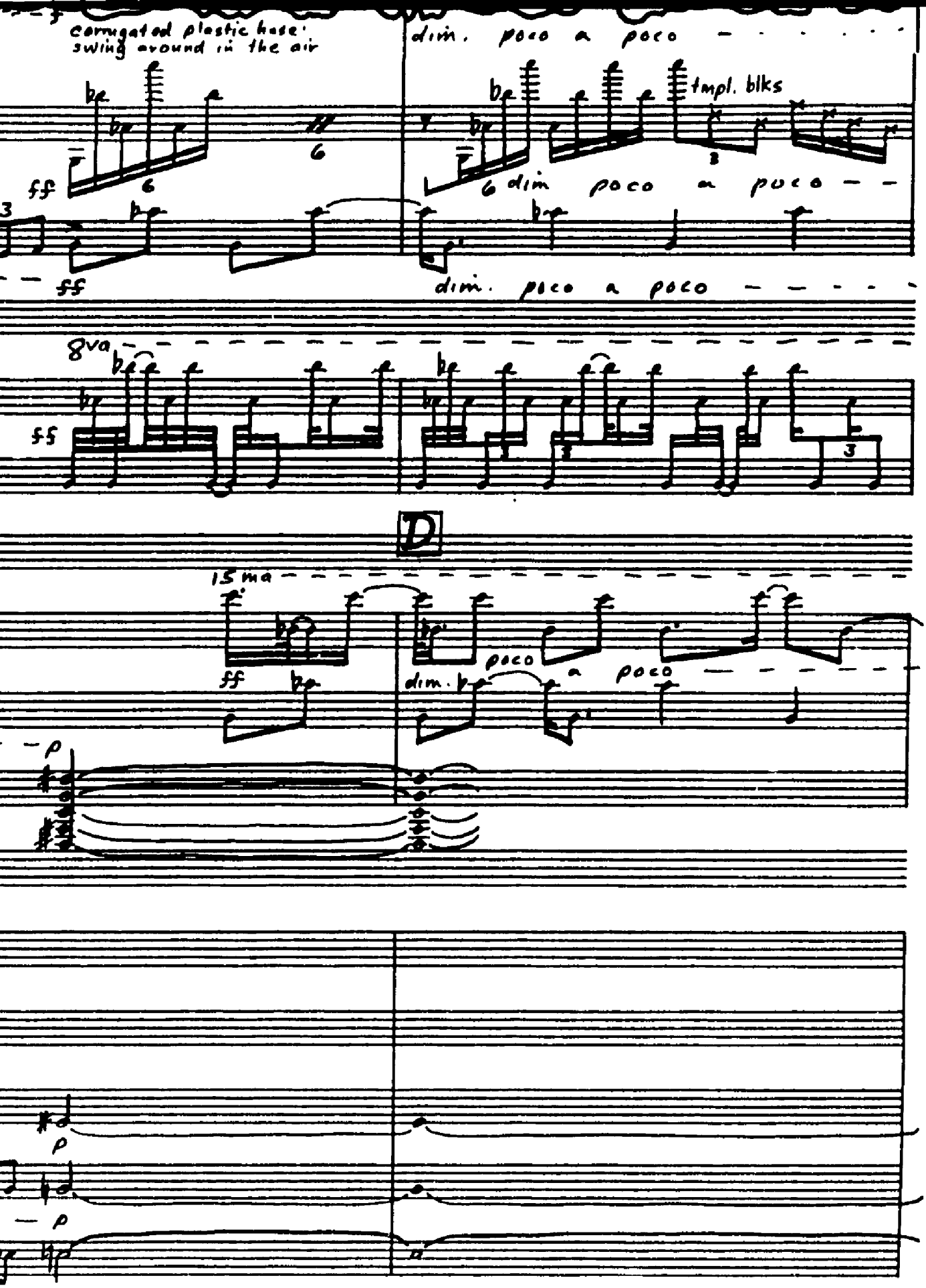


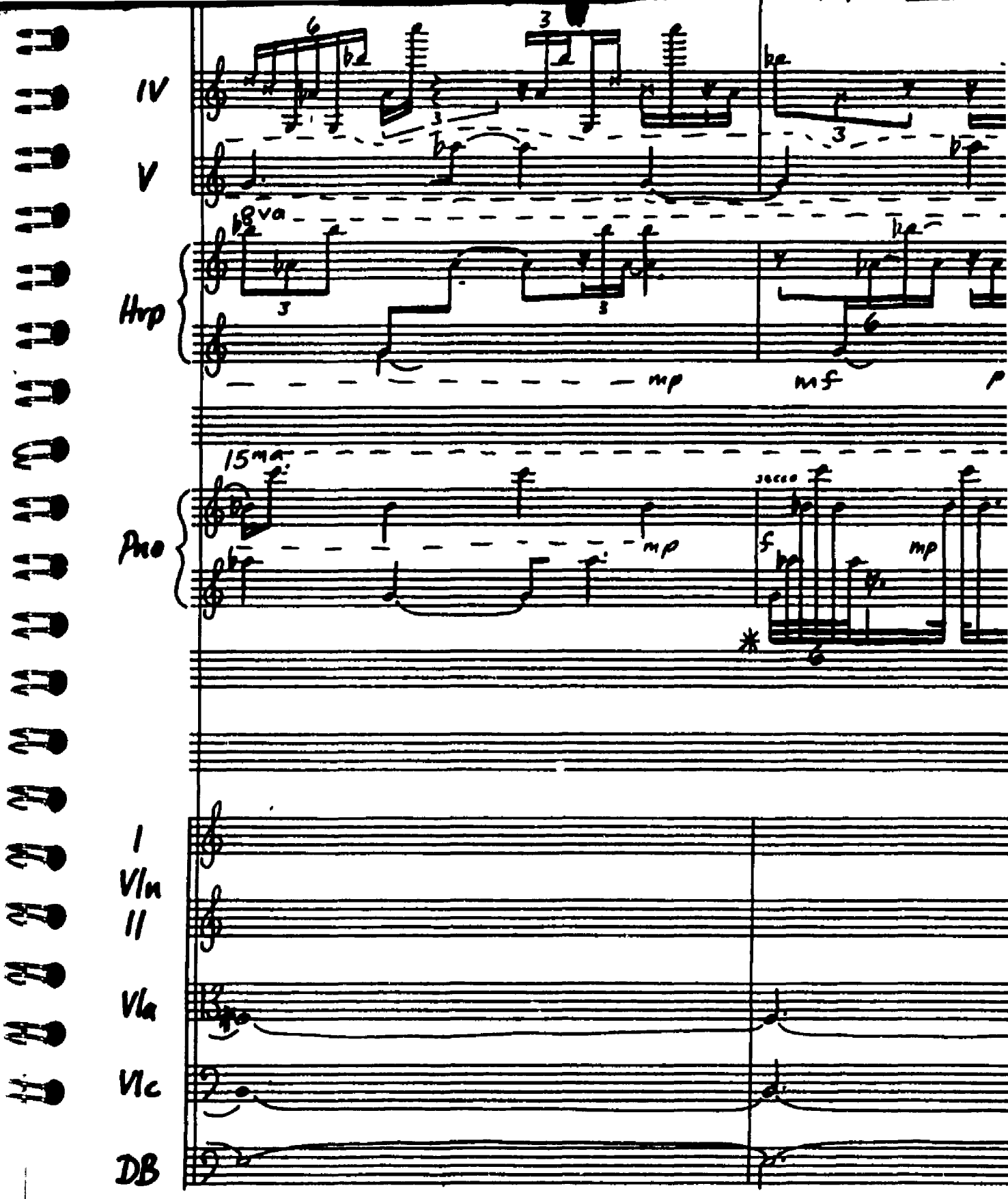
mf
with nails, near bridge
ord.
8va
D♮ E♮ F♮
C# A♮
8va
mf
f
Ped.
p
mf
p
mf
p
p
mf
p
mf
p
sc. poco a poco
f
ppp
cresc. poco a poco

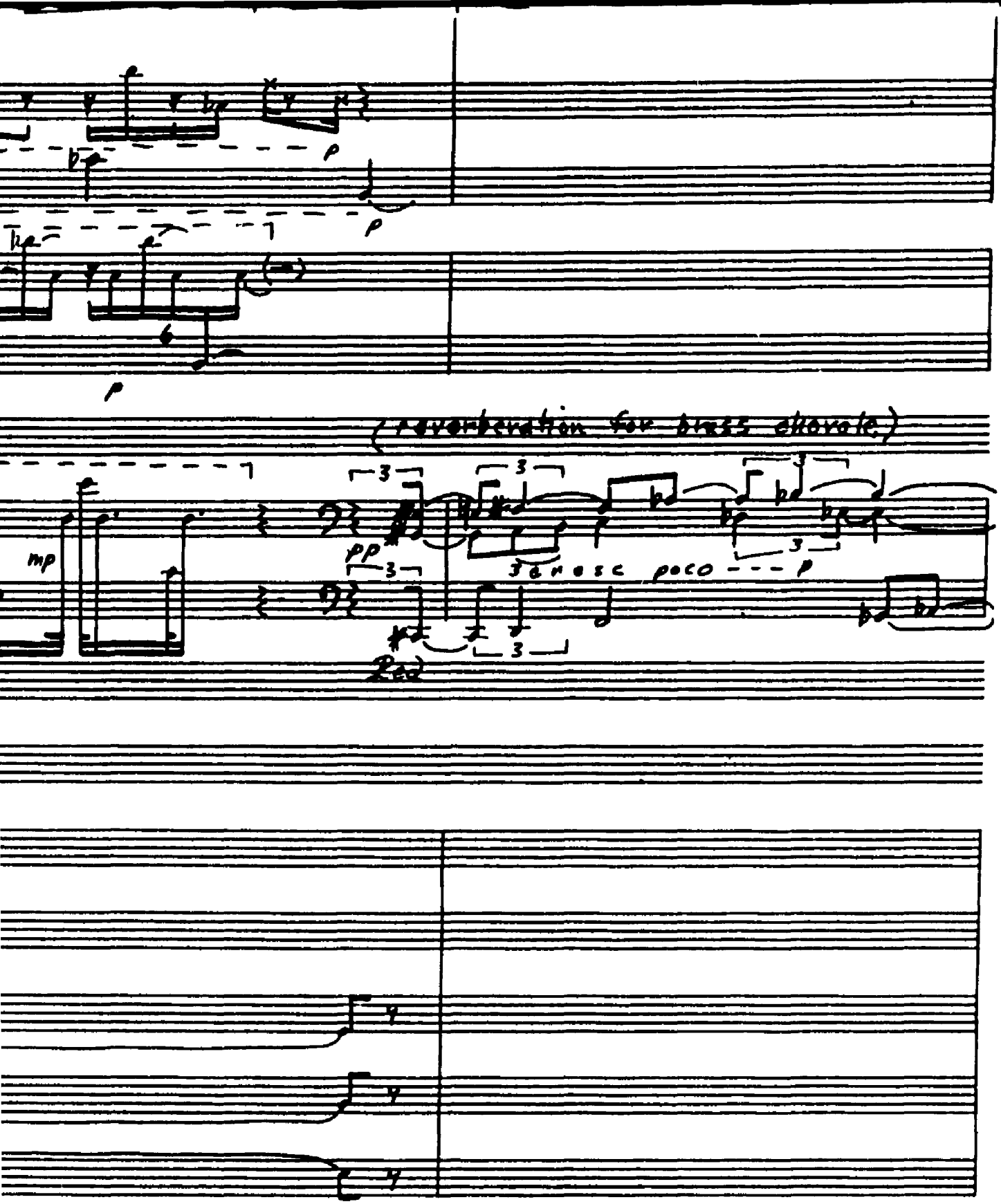

IV
Hrp
B♯ F♯ A♯
8va
Pno
sus. ped.
Ped.
I
Vln
II
Vla
Vlc
D.B.
mf
mp
A

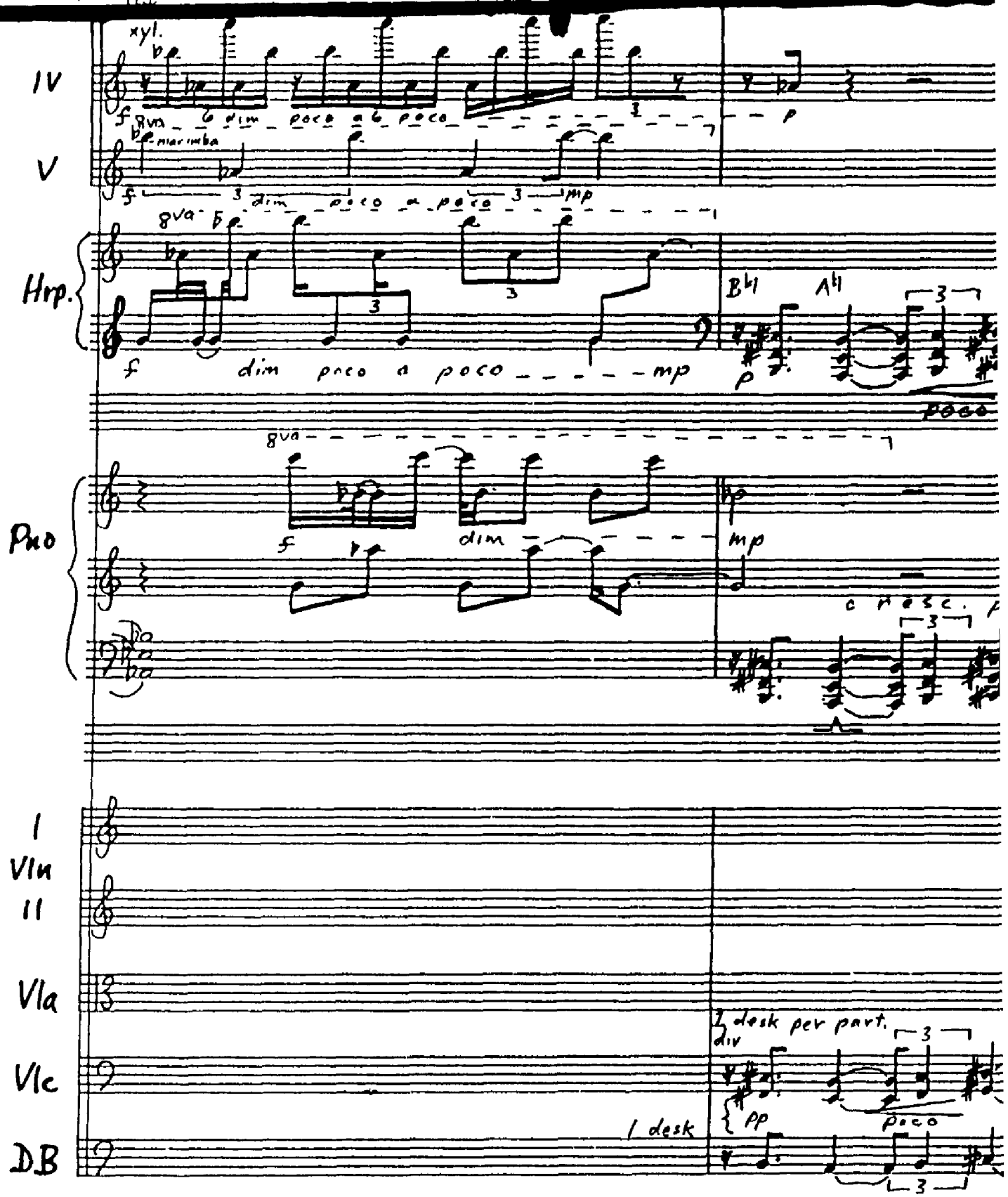

mf
non arpe
mf
8va
pp
f
mf
Ped.
Ped.
Ped.
3
mf
p
mf
p
3
mf
p
mf
p
pp
mf
pp
mf
pp
mf
pp
mf
pp

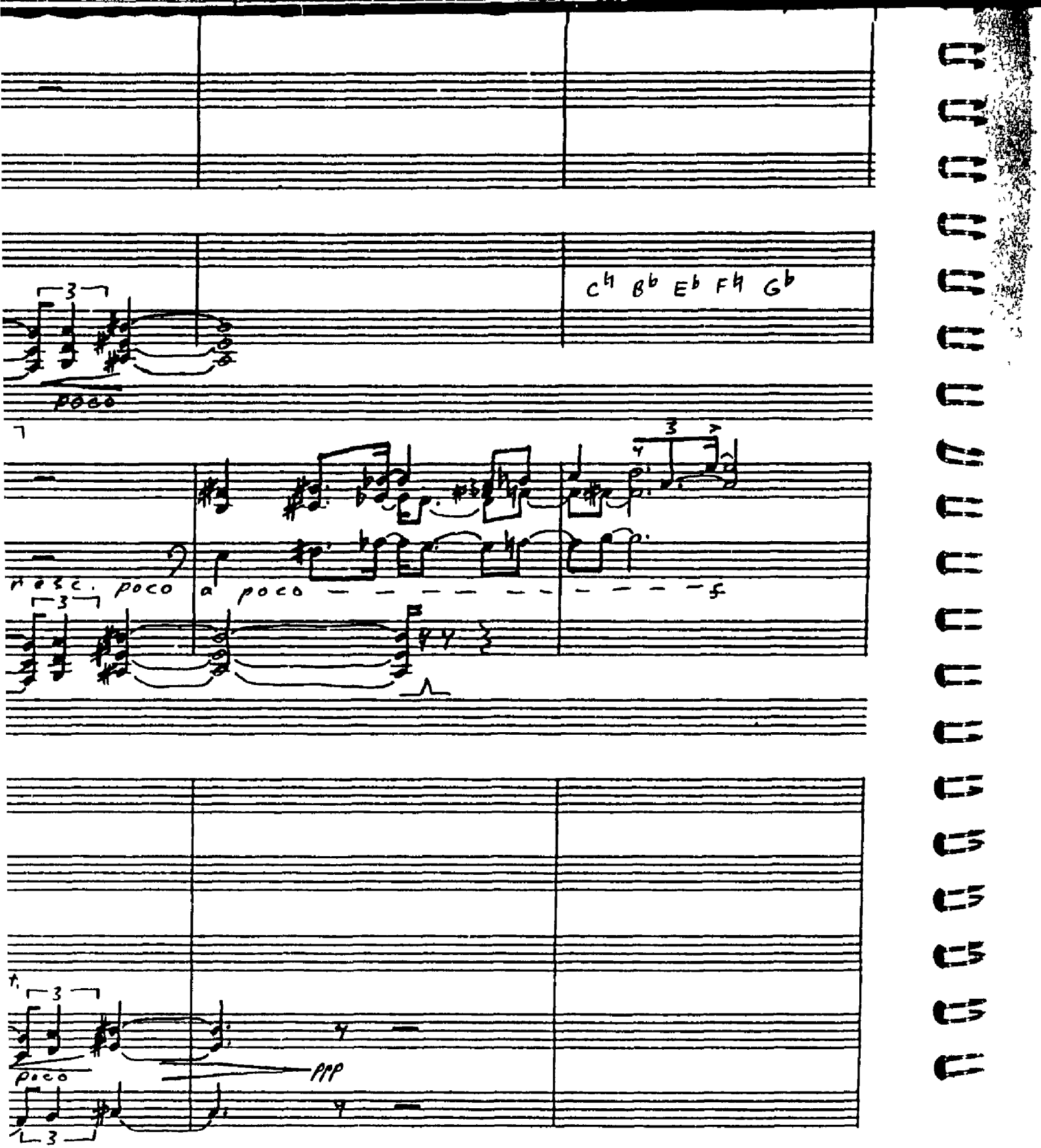

IV
xyl.
ff
V
marimba
3
cresc.
ff
8va
Hrp.
D♯ B♭ A♭
ff
Pno.
dim poco a poco
p
I
Vln.
II
Vla.
p
Vlc.
3
mf
dim.
p
D.B.
3

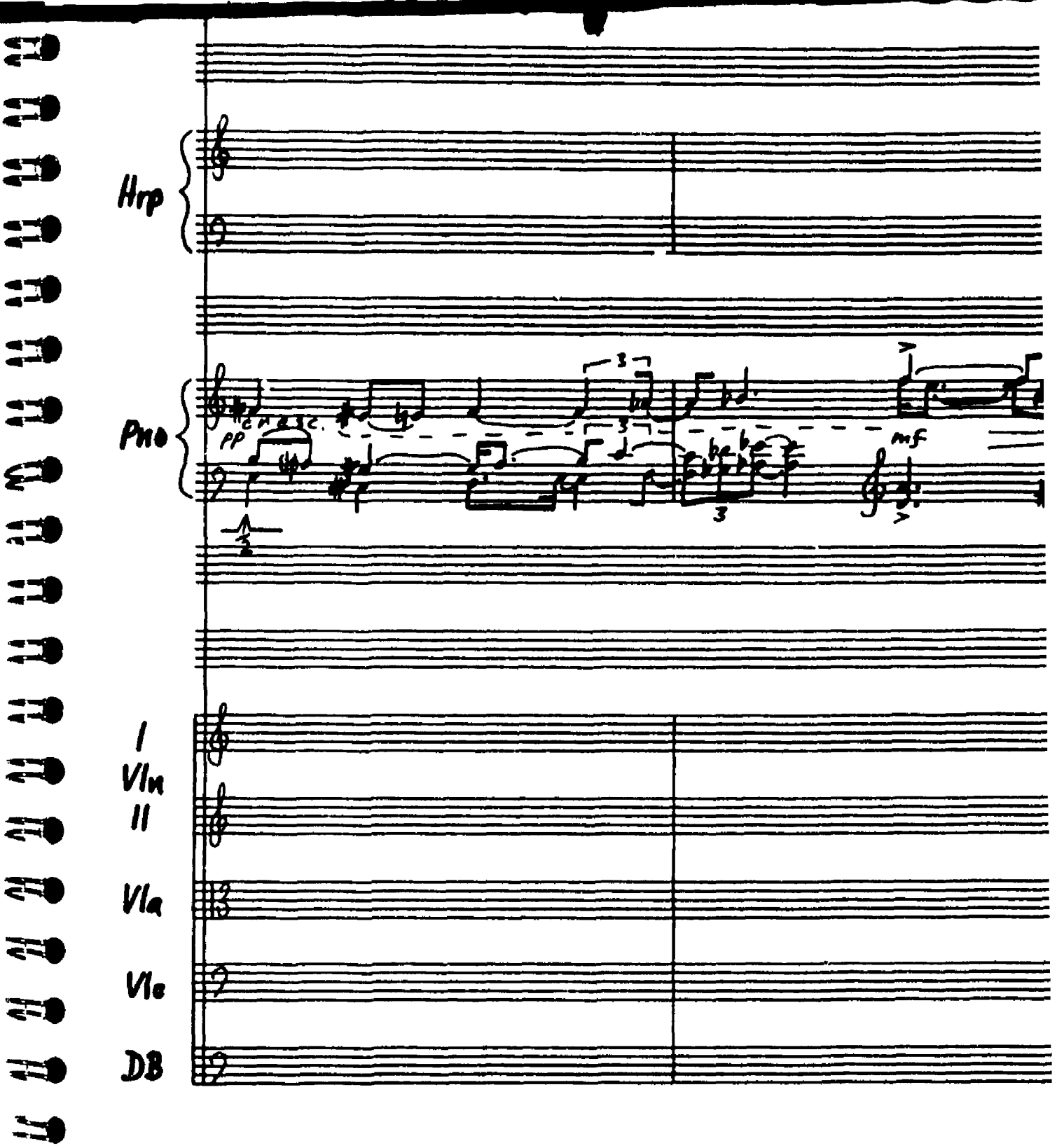

corrugated plastic hose: swing around in the air
dim. poco a poco
tmpl. blks
ff
dim poco a poco
dim. poco a poco
8va
D
15ma
poco a poco
dim.
p

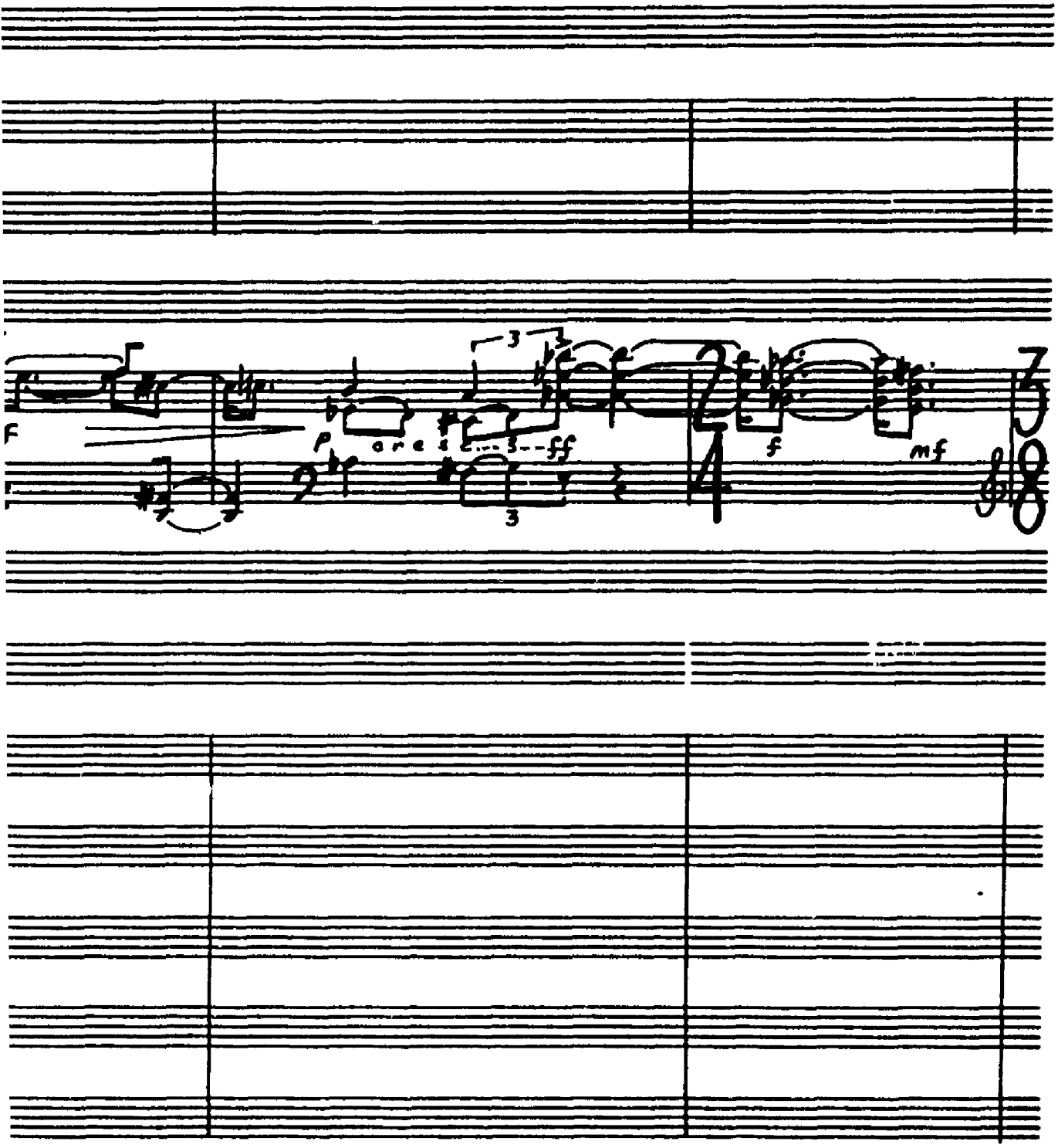

IV
V
Hrp
8va
mp
mf
Pno
15ma
mp
sf
mp
I
Vln
II
Vla
Vlc
DB

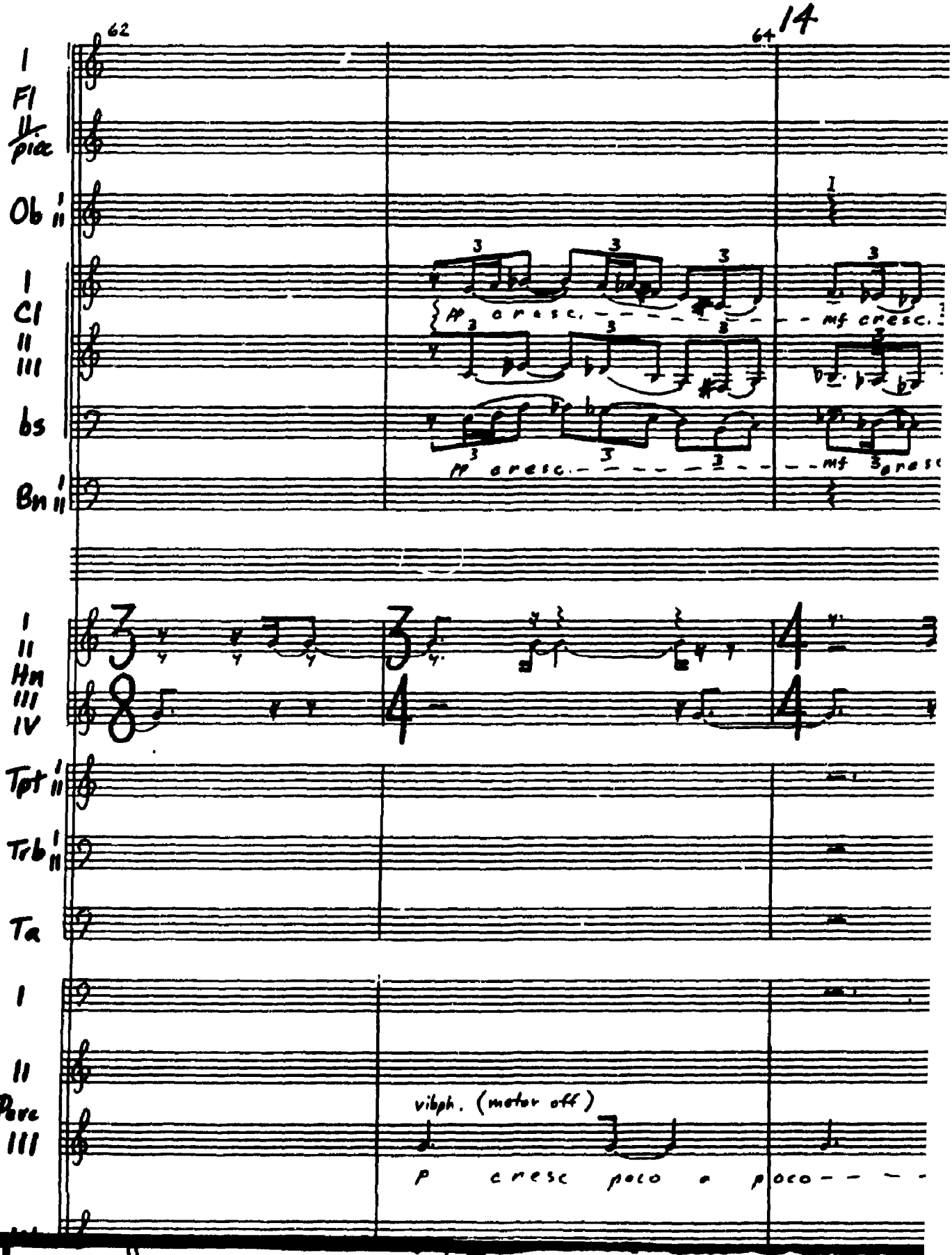

p
p
p
(reverberation for brass chorale)
mp
pp
3 cresc poco - - - p
Ped

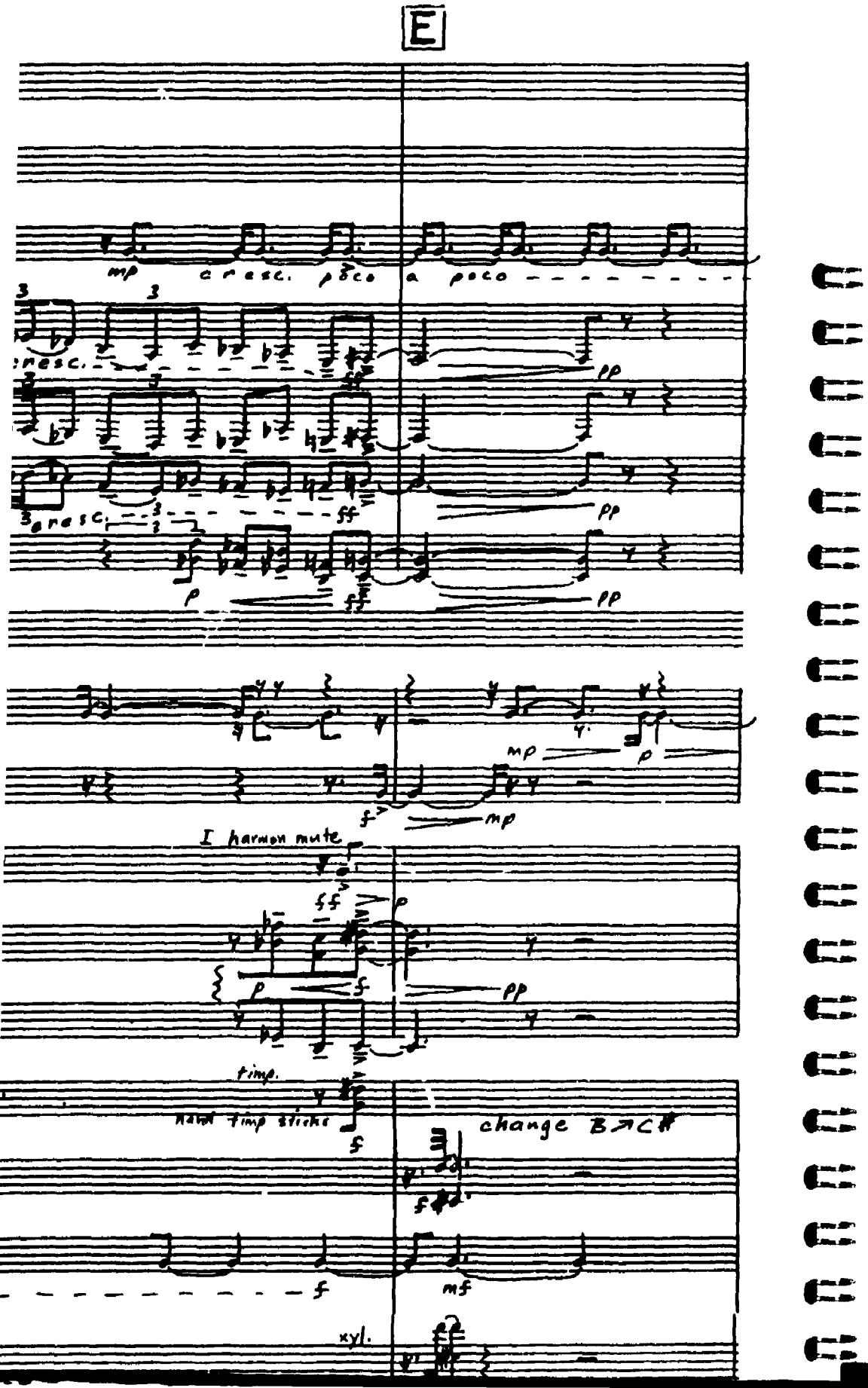

IV
xyl.
f
8va
6 dim poco a 6 poco
p
V
marimba
f
dim poco a poco
mp
Hrp.
8va
f
dim poco a poco
mp
B♮
A♮
p
poco
Pno
8va
f
dim
mp
cresc.
I
Vln
II
Vla
Vlc
DB
1 desk per part.
div
pp
poco
1 desk

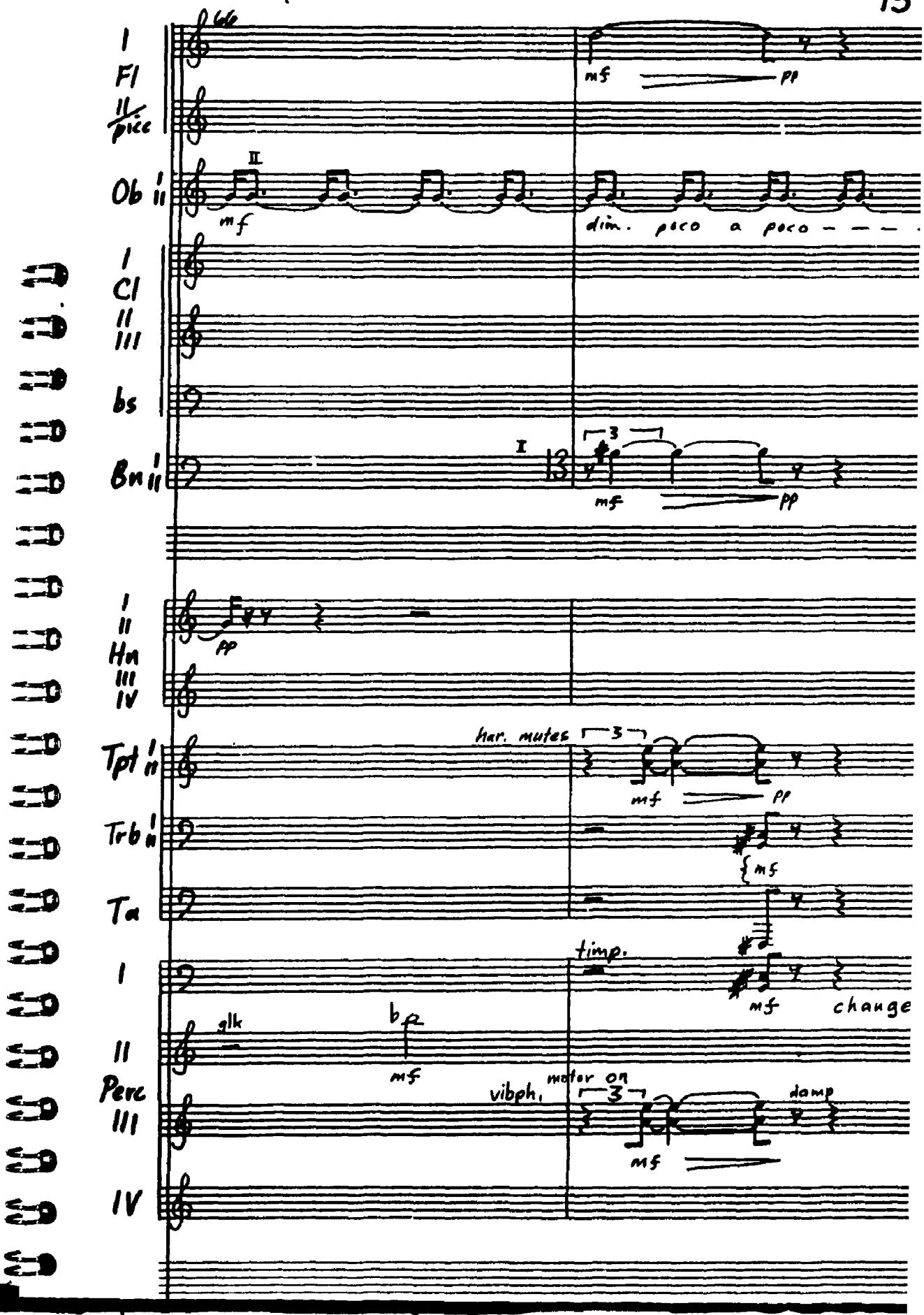

C♮ B♭ E♭ F♮ G♭
poco
resc. poco a poco
f
poco
ppp


Hrp
Pno
pp
mf
I
Vln
II
Vla
Vlc
DB


f
p
cresc
ff
f
mf


62
64
I
Fl
II
piac
Ob
I
II
Cl
II
III
bs
Bn
I
II
Hn
III
IV
Tpt
I
II
Trb
I
II
Ta
I
II
Perc
III
vibph. (motor off)
p cresc poco a poco


E
mp
cresc. poco a poco
pp
ff
p
mp
I harmon mute
timp.
natural timp sticks
change B→C#
mf
xyl.

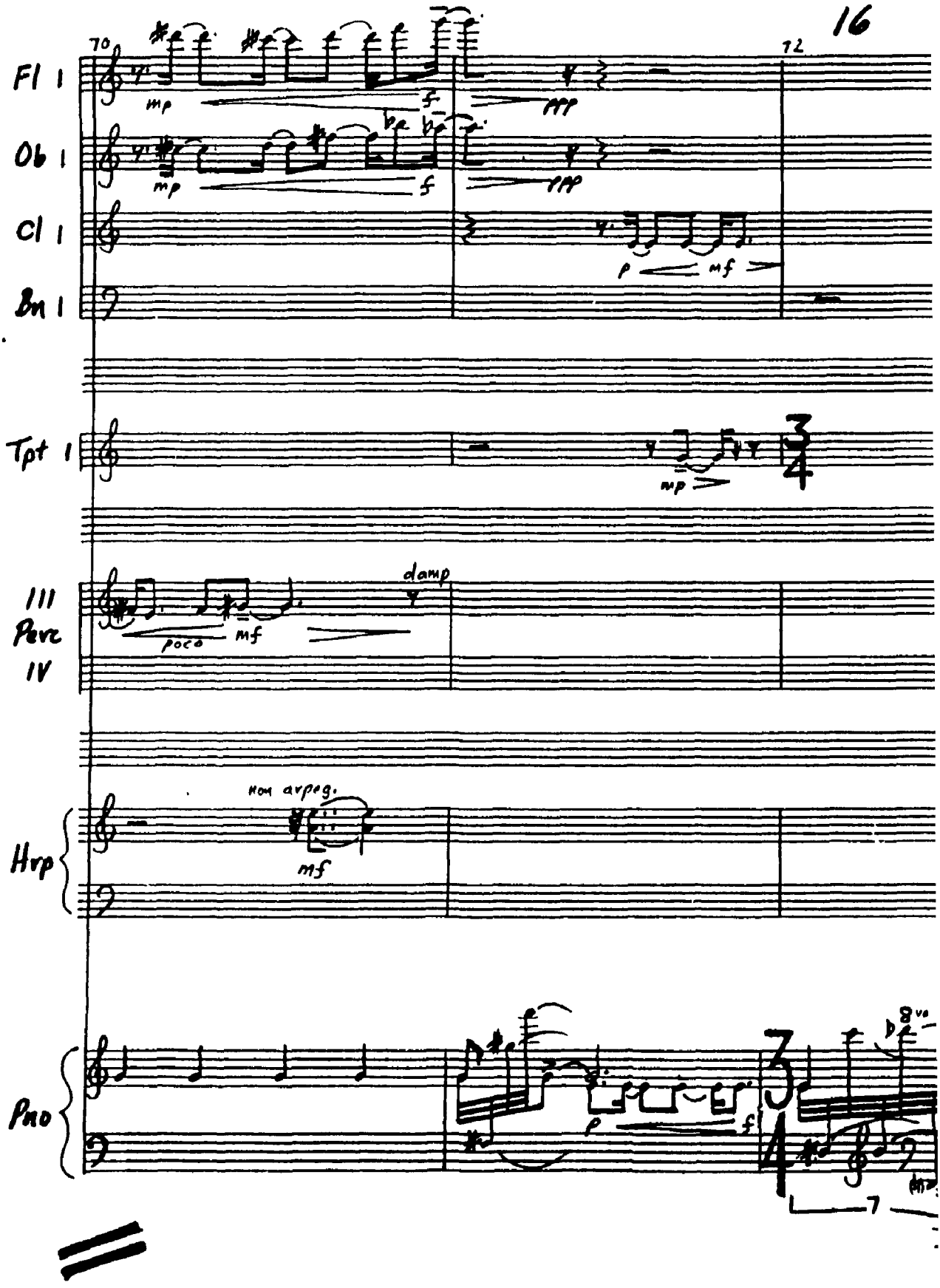

I
Fl
II
picc
Ob
I
II
mf
dim. poco a poco
I
Cl
II
III
bs
Bn
I
II
mf
pp
I
II
Hn
III
IV
pp
Tpt
I
II
har. mutes
mf
pp
Trb
I
II
mf
Tu
timp.
I
mf
change
II
glk
mf
Perc
III
vibph.
motor on
mf
damp
IV

68

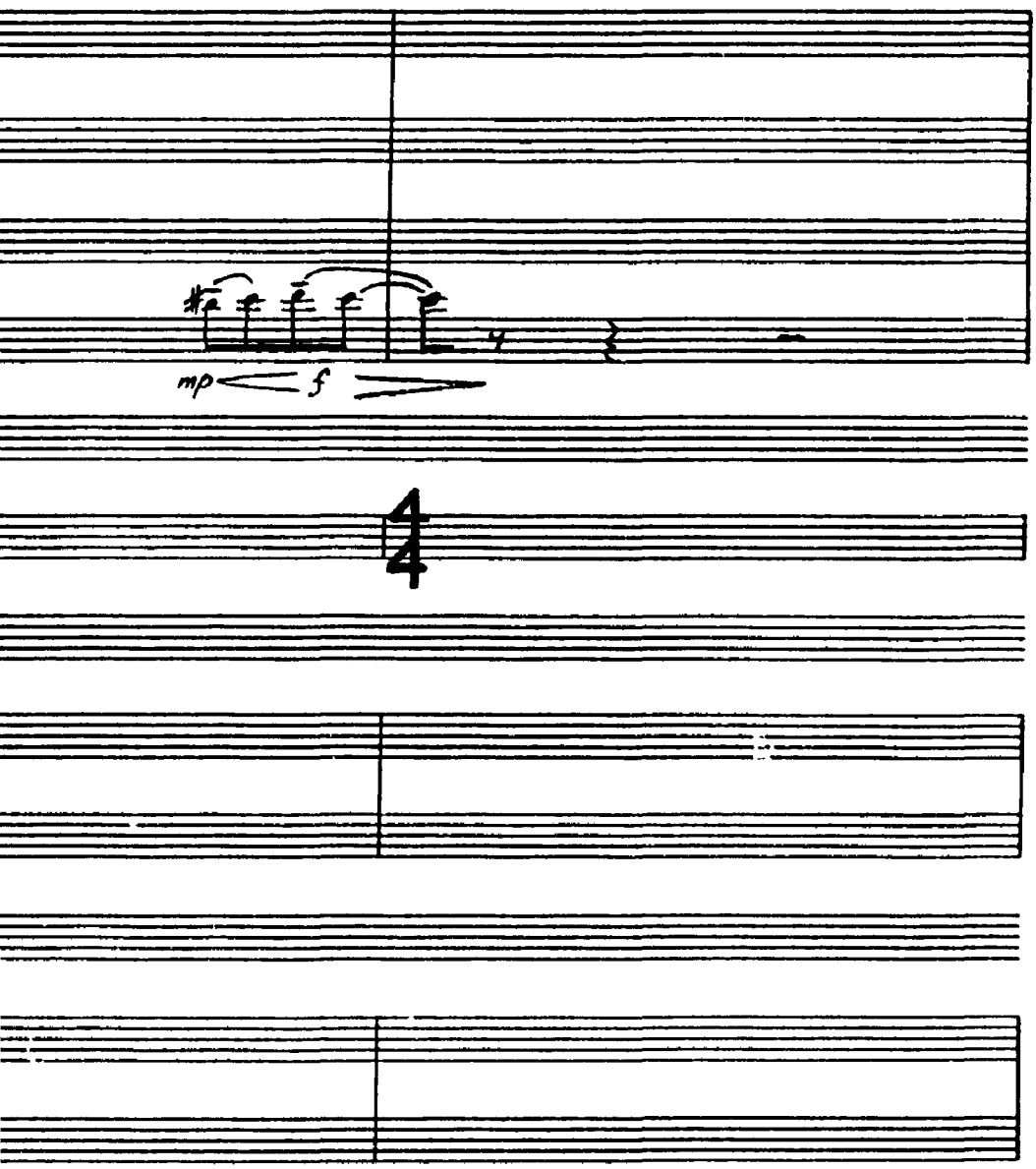
pp

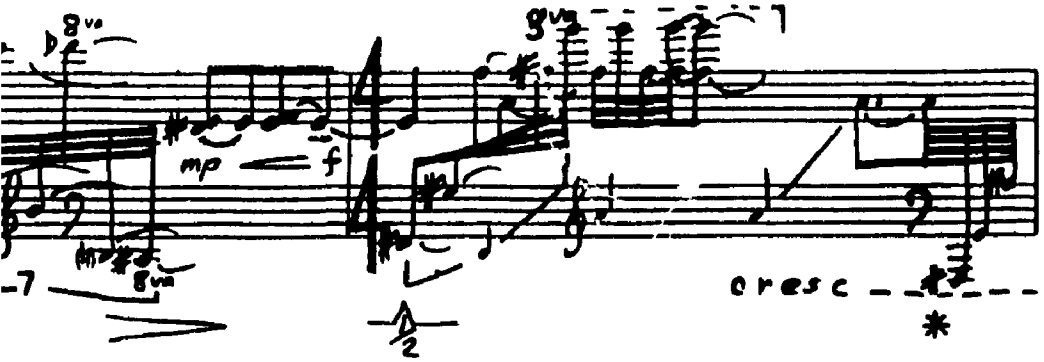
change: F# → D, C# → A#

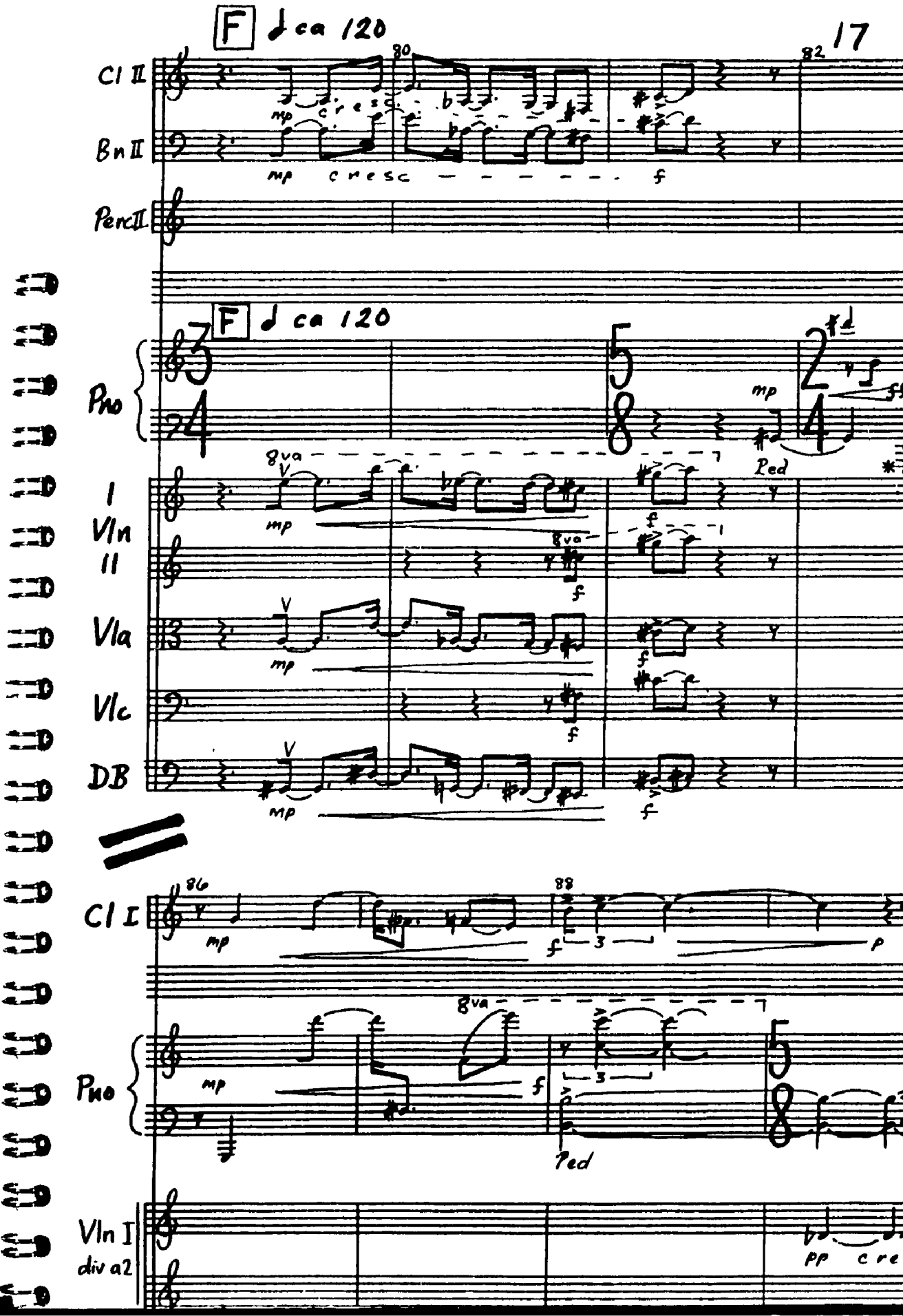
mp


70
72
Fl 1
mp
f
mp
Ob 1
mp
f
mp
Cl 1
p
mf
Bn 1
Tpt 1
mp
3/4
III
Perc
IV
damp
poco
mf
non arpeg.
mf
Hrp
Pno
p
f
8va
7

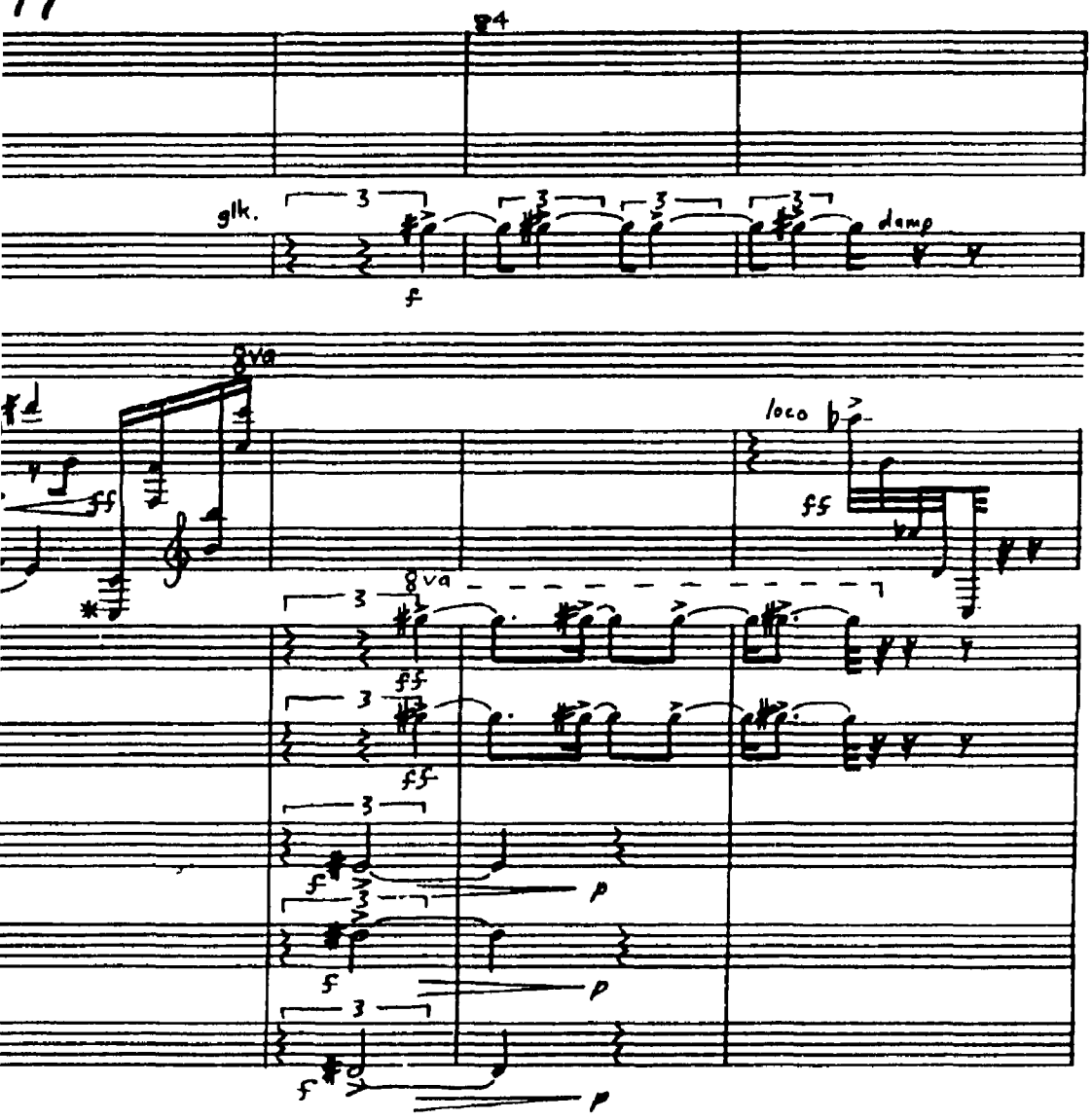
6

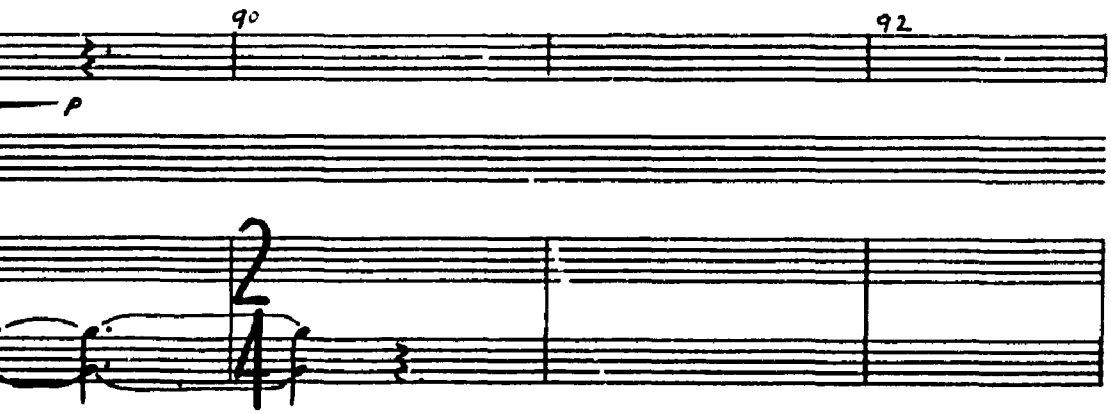


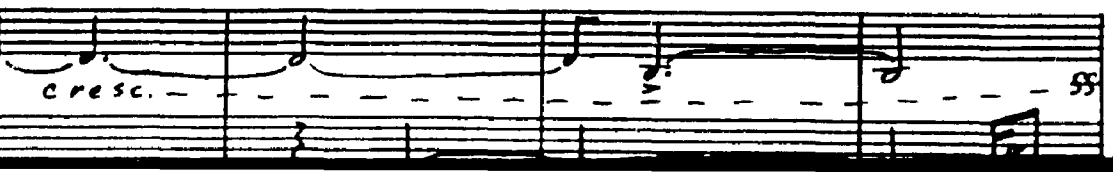


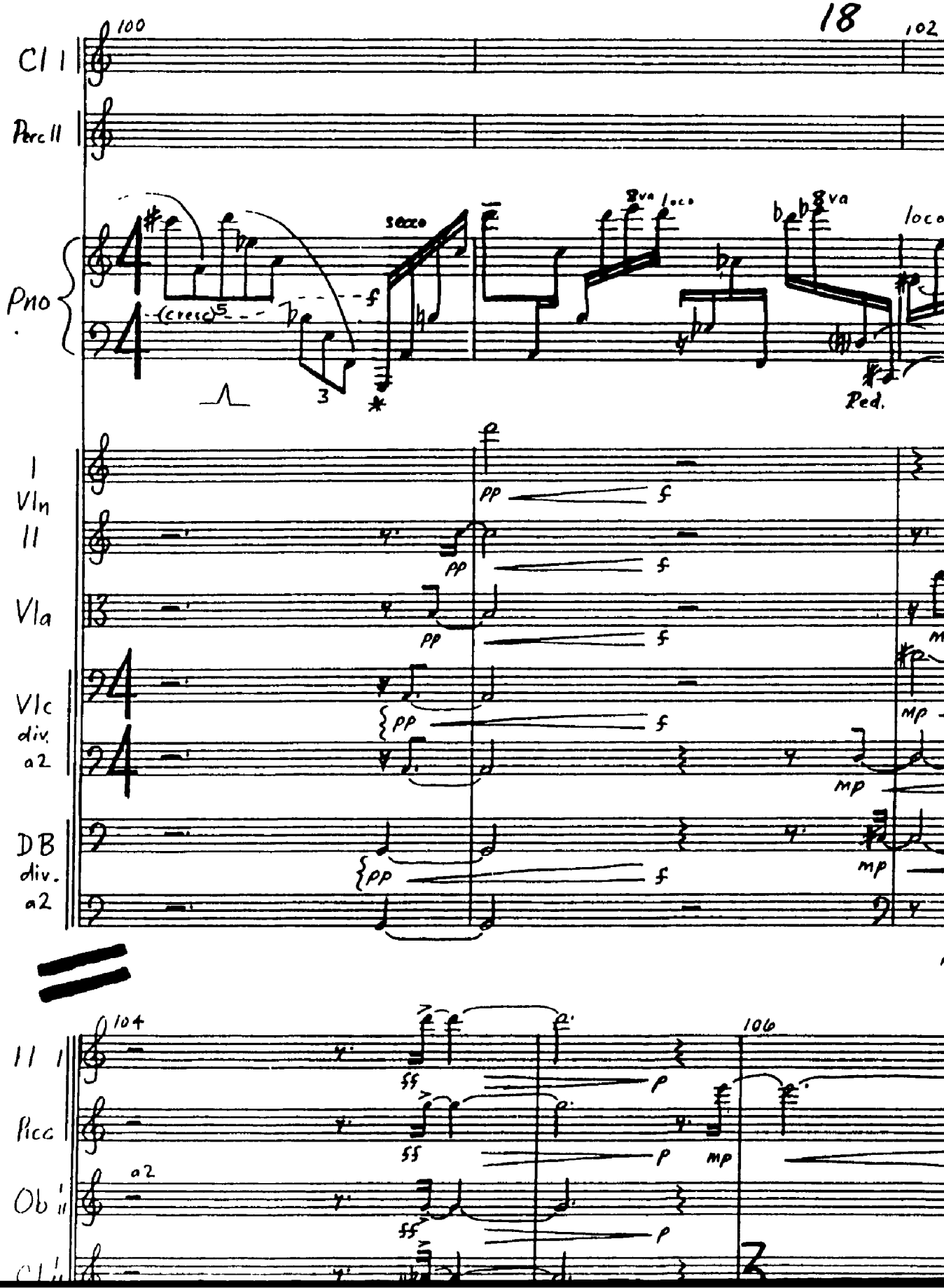

F ♩ ca 120
80
82
Cl II
Bn II
mp cresc
f
Perc II
F ♩ ca 120
Pno
mp
Ped
I Vln II
Vla
Vlc
DB
mp
f
86
88
Cl I
3
p
Pno
Ped
Vln I
div a2
pp

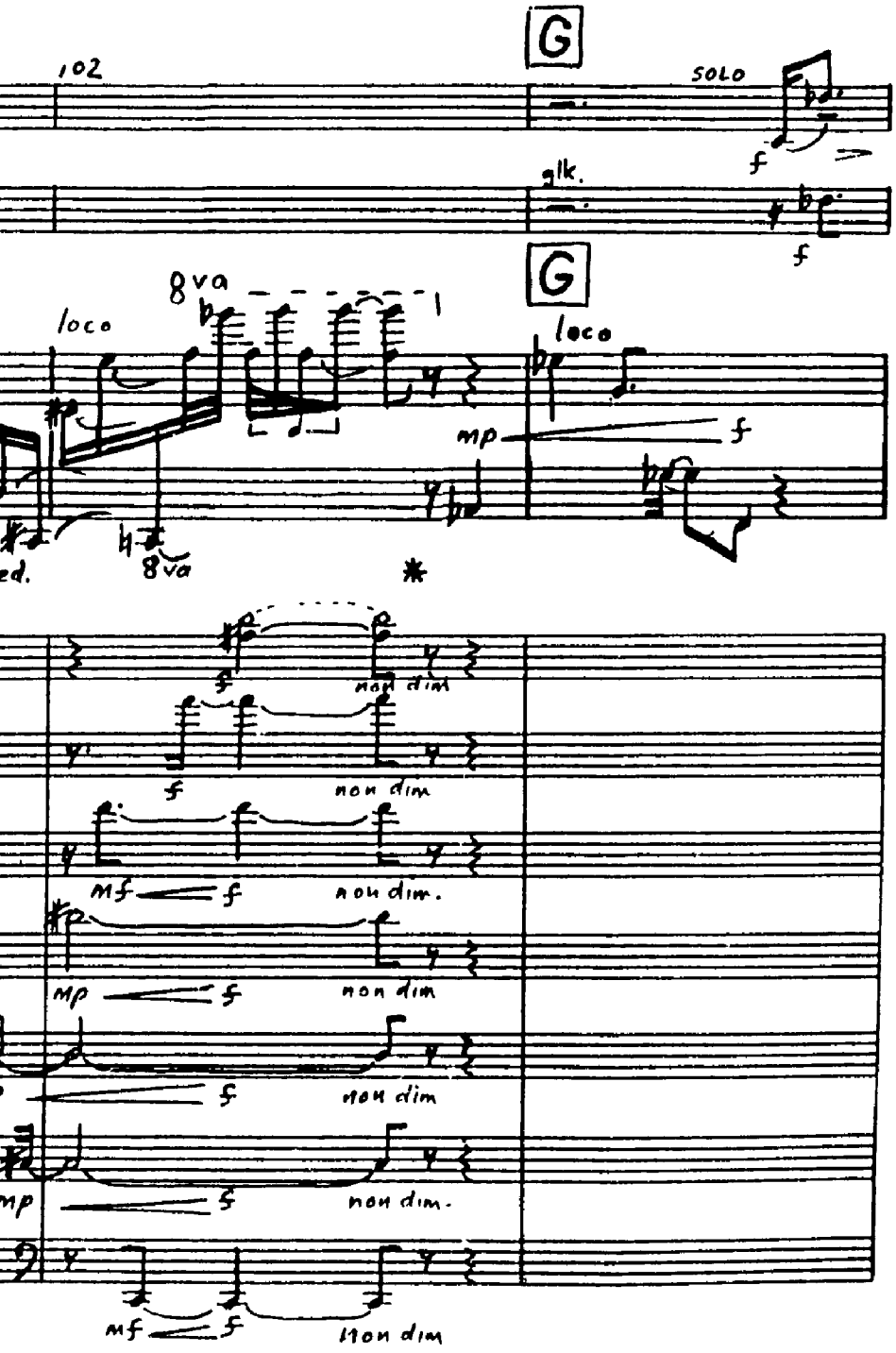
17

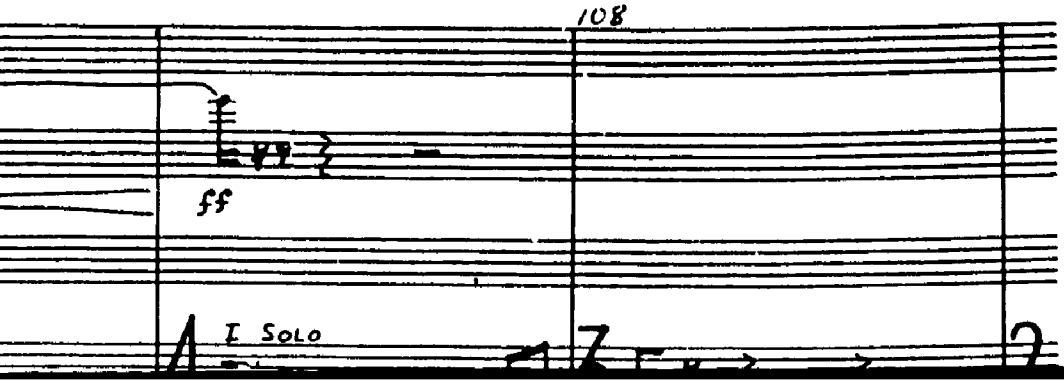


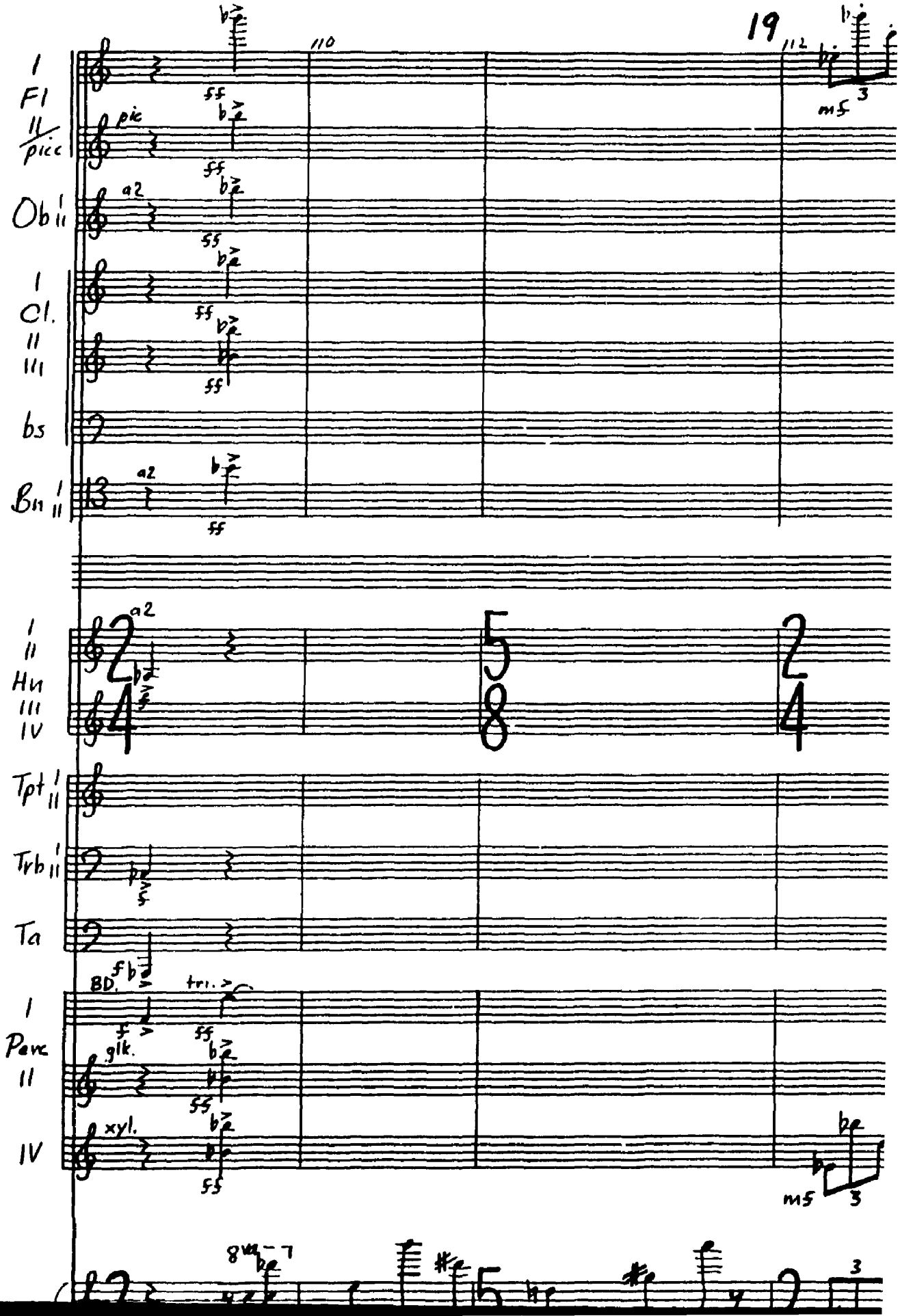


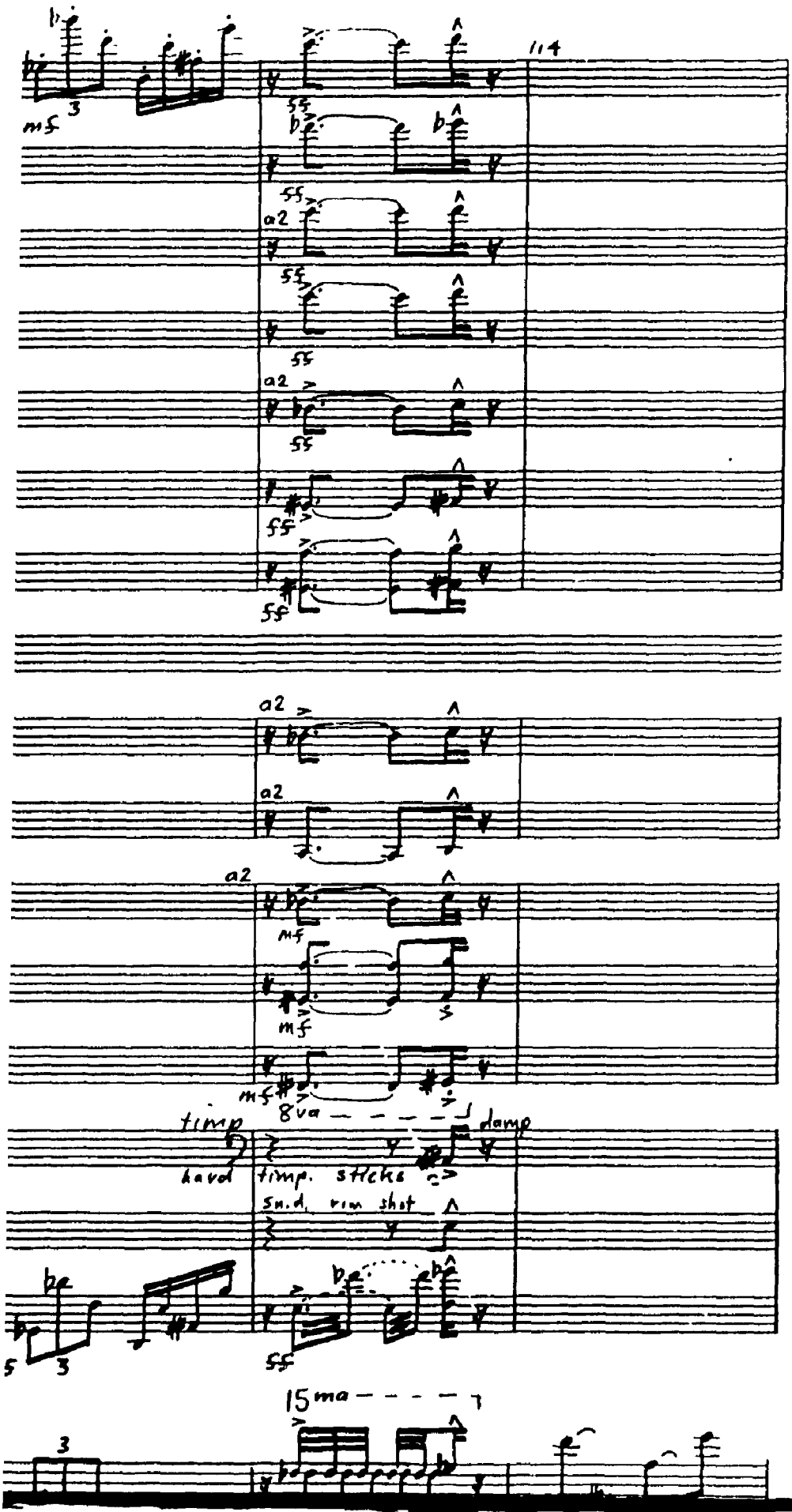


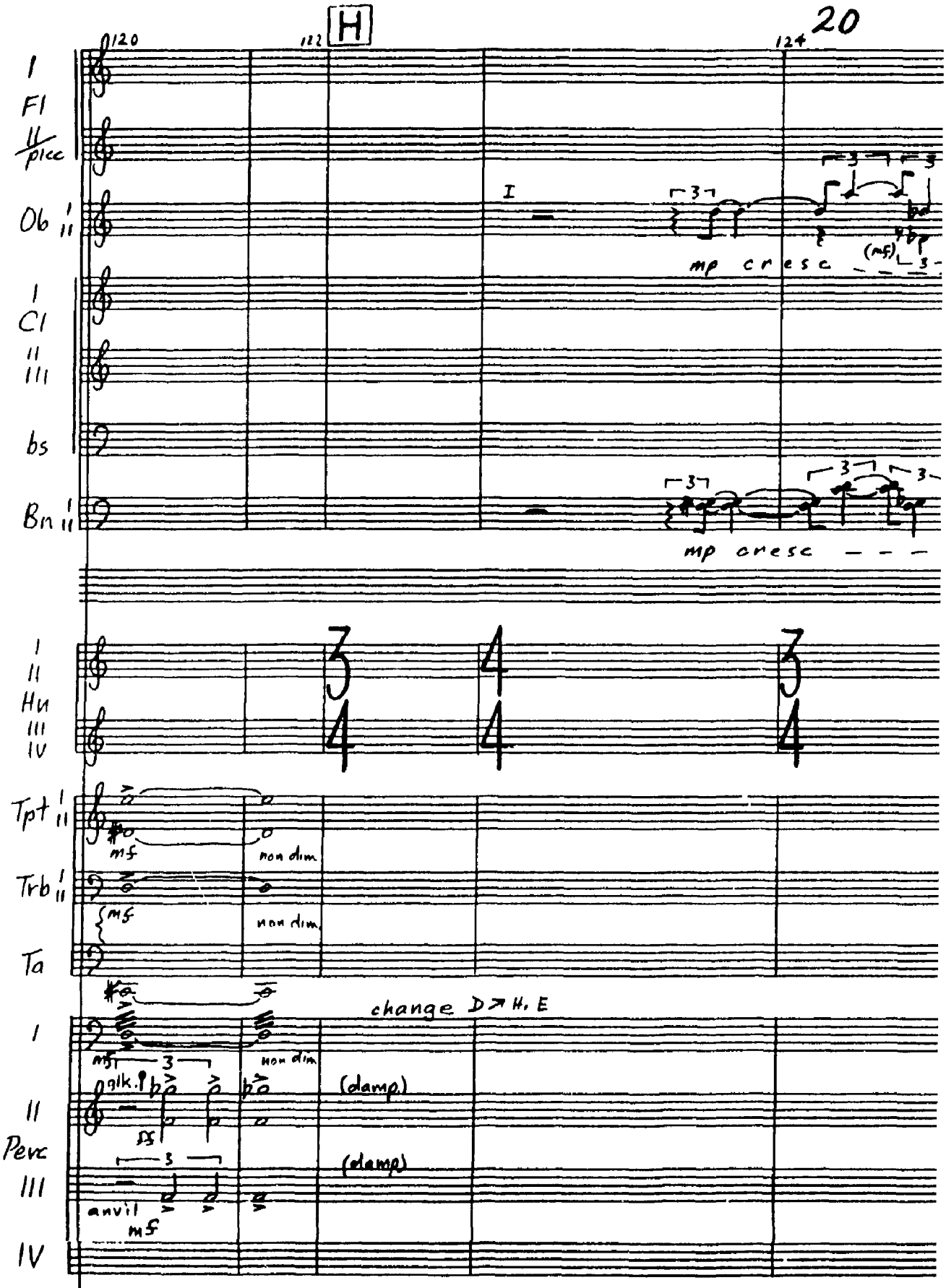

100
102
Cl I
Perc II
Pno
secco
8va
loco
(cresc)
Ped.
I
Vln
II
Vla
Vlc
div.
a2
DB
div.
a2
pp
f
mp
104
106
II I
Picc
Ob
a2
ff
p

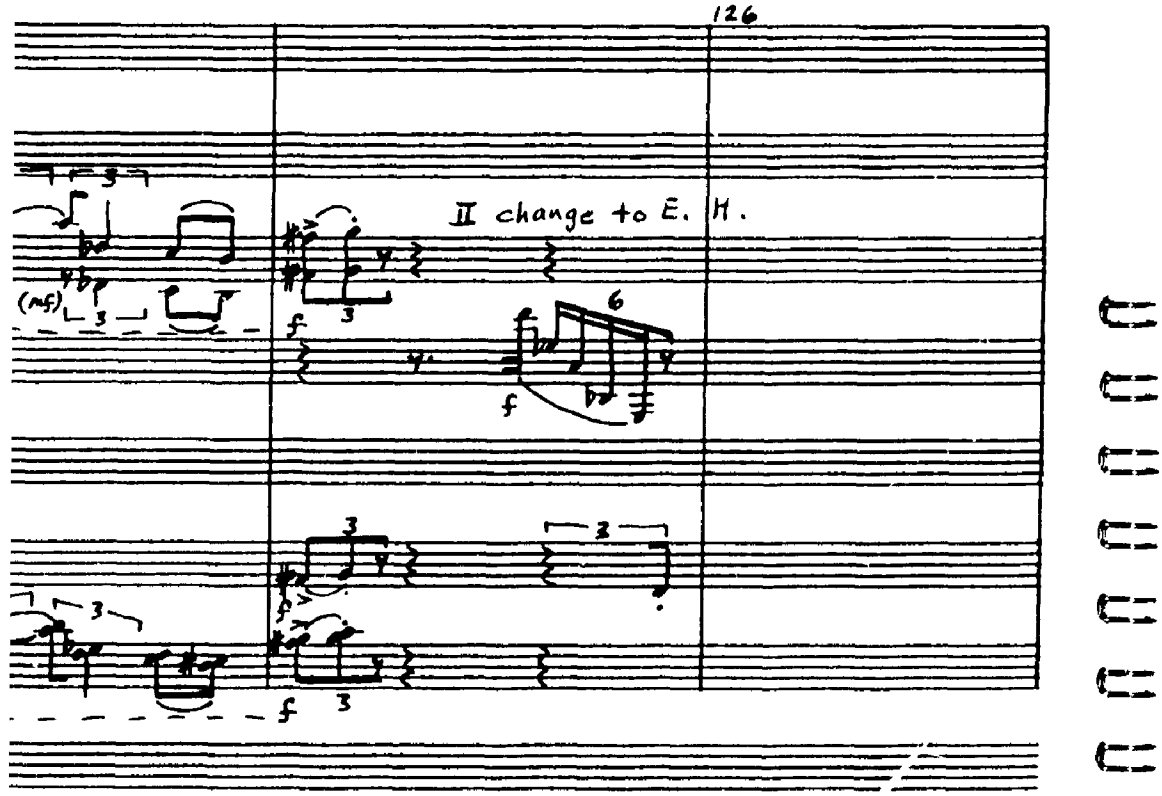

102
G
SOLO
f
glk.
f
G
8va
loco
loco
mp
f
ed.
8va
*
f
non dim
f
non dim
mf
f
non dim.
mp
f
non dim
f
non dim
mp
f
non dim.
mf
f
non dim

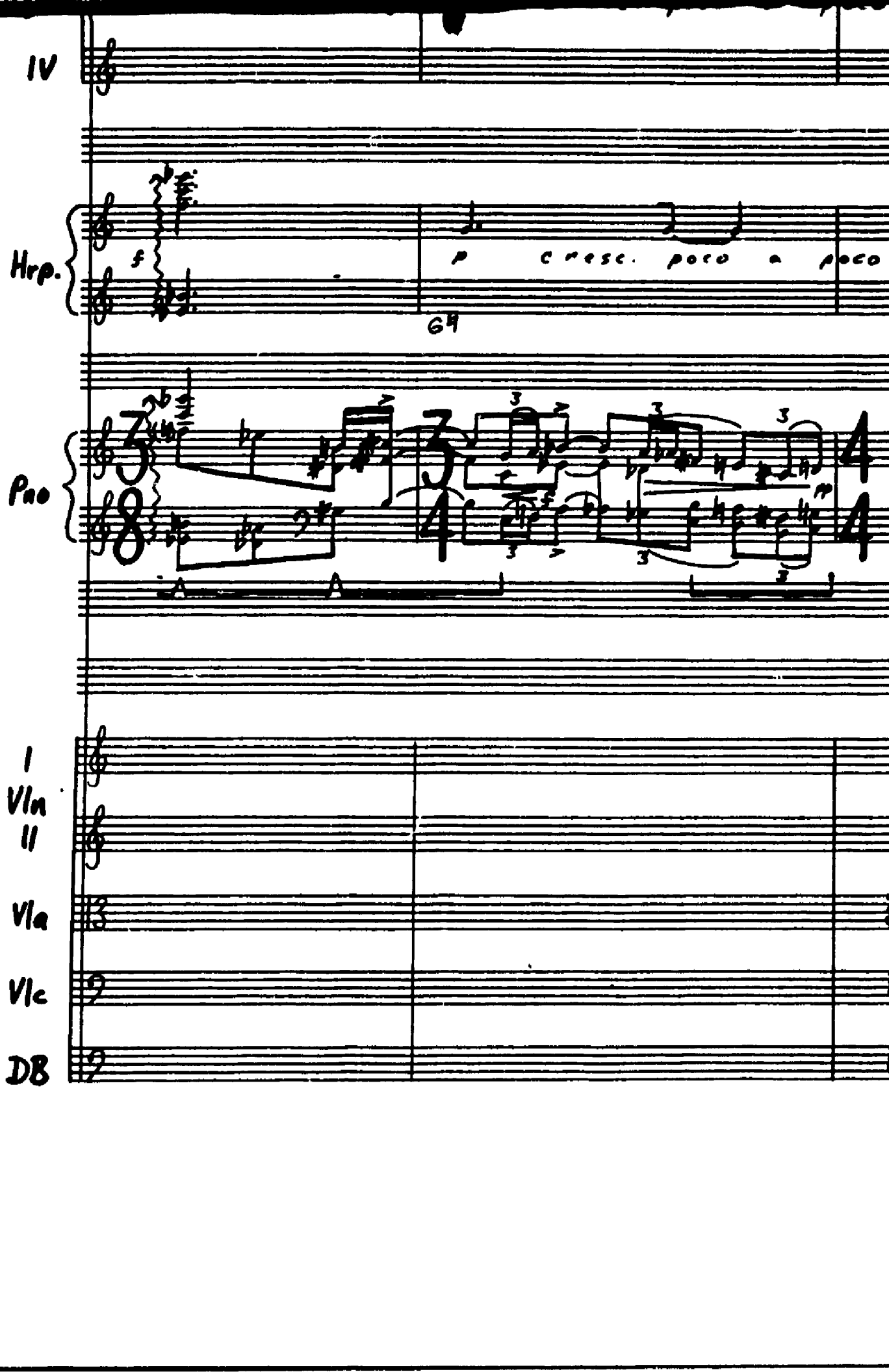

108
ff
I SOLO

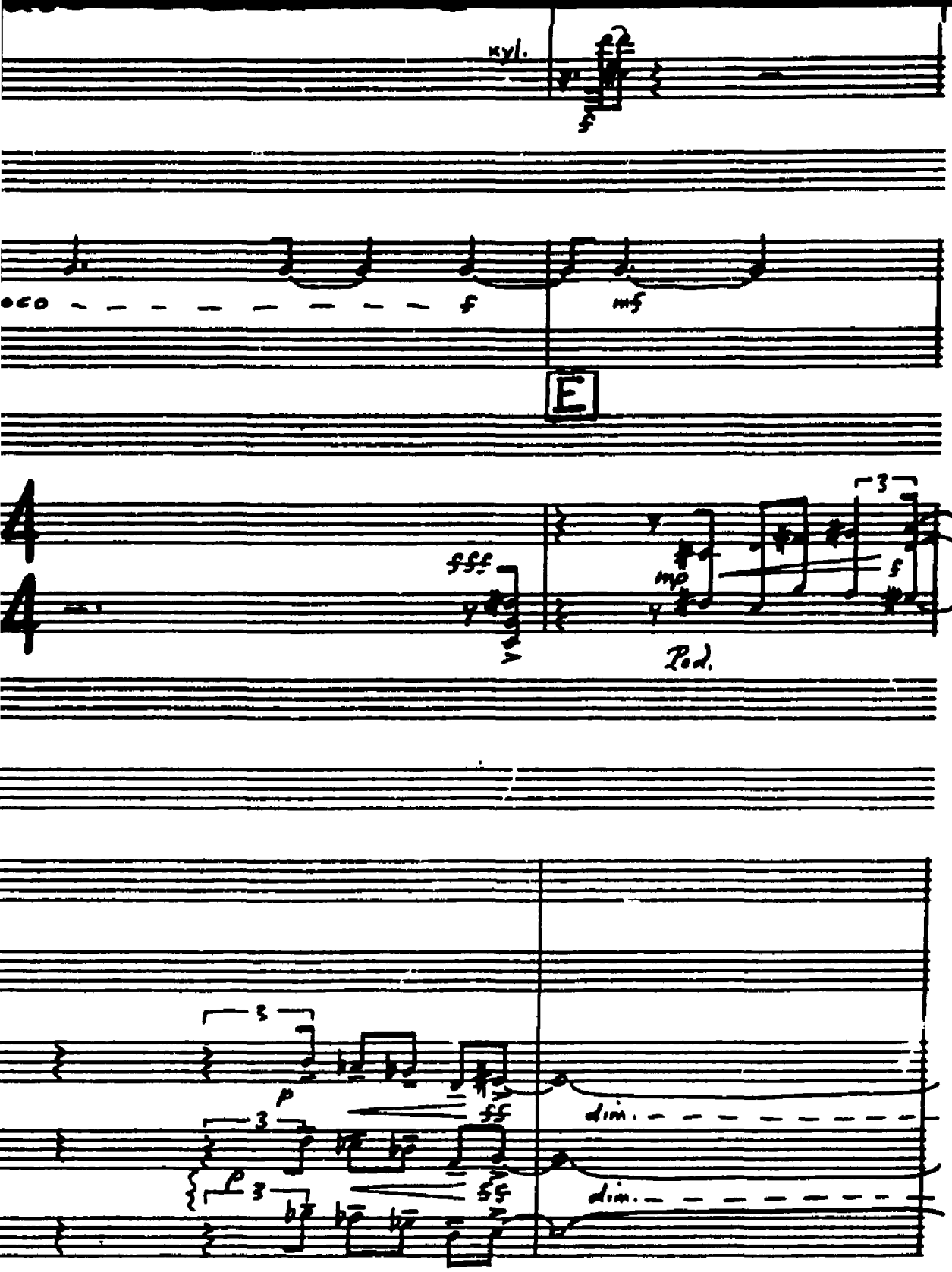

110
112
I
Fl
II
picc
pic
Ob I II
a2
I
Cl.
II
III
bs
Bn I II
a2
I
II
Hn
III
IV
a2
Tpt I II
Trb I II
Ta
BD.
tri.
I
Perc
II
glk.
IV
xyl.
ff
mf
3

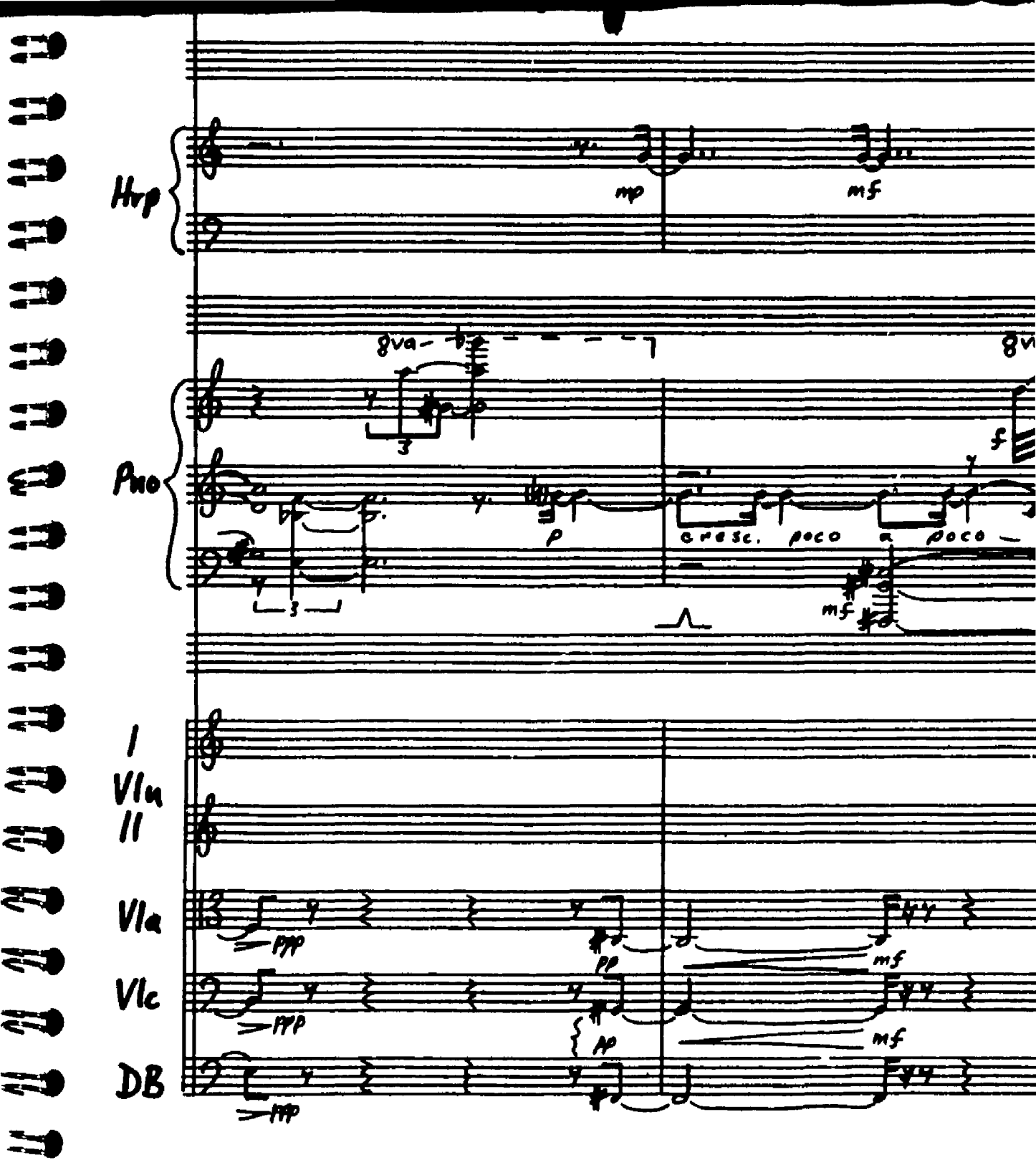

114
mf
a2
ff
8va
damp
timp
hard
timp. sticks
sn.d. rim shot
15ma

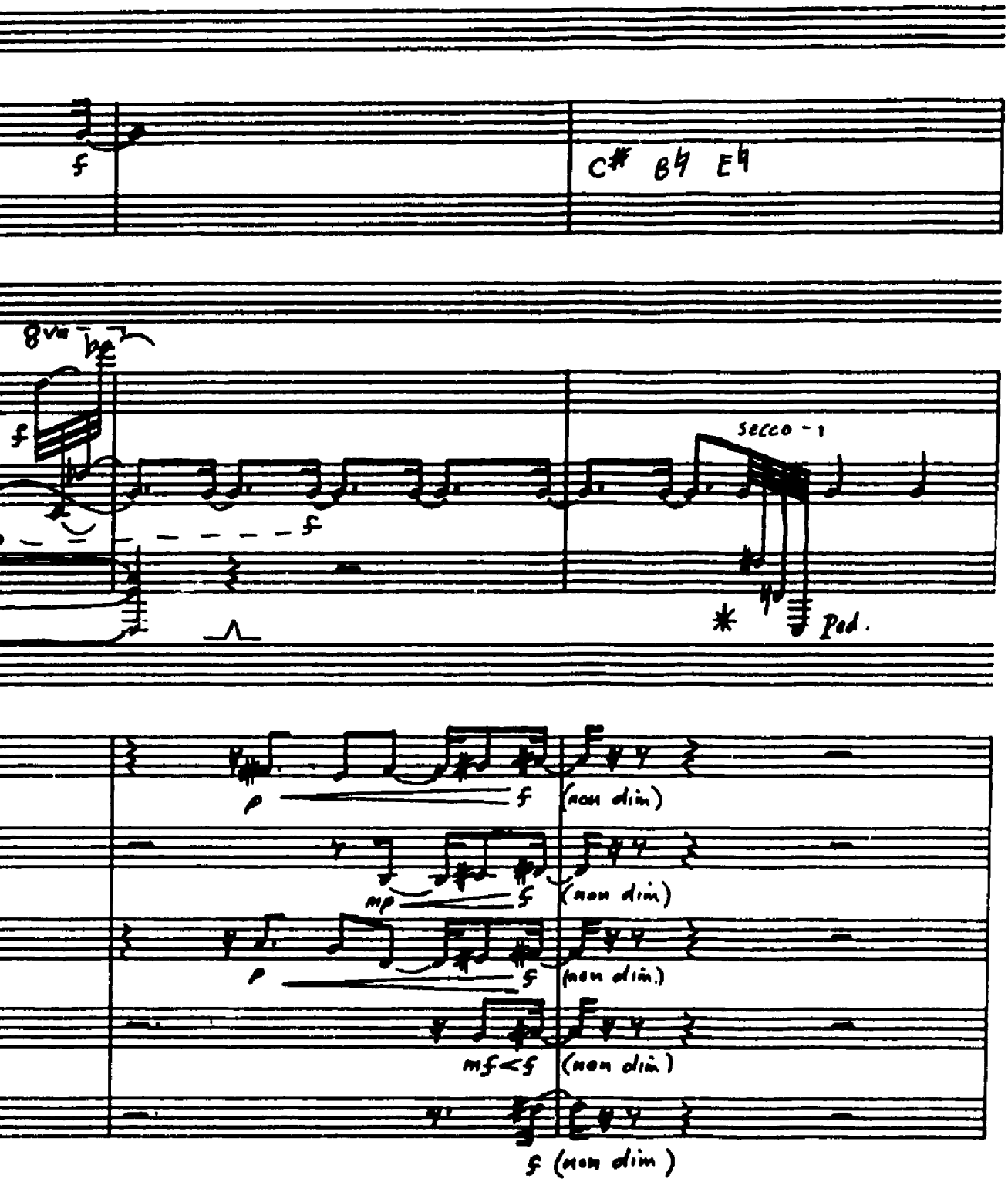

H
120
122
124
I
Fl
II
picc
Ob I
II
I
Cl
II
III
bs
Bn I
II
mp cresc
(mf)
mp cresc
I
II
Hn
III
IV
Tpt I
II
mf
non dim
Trb I
II
mf
non dim
Ta
change D ↗ H, E
I
mf
non dim
glk.
(damp)
II
ff
Perc
(damp)
III
anvil
mf
IV

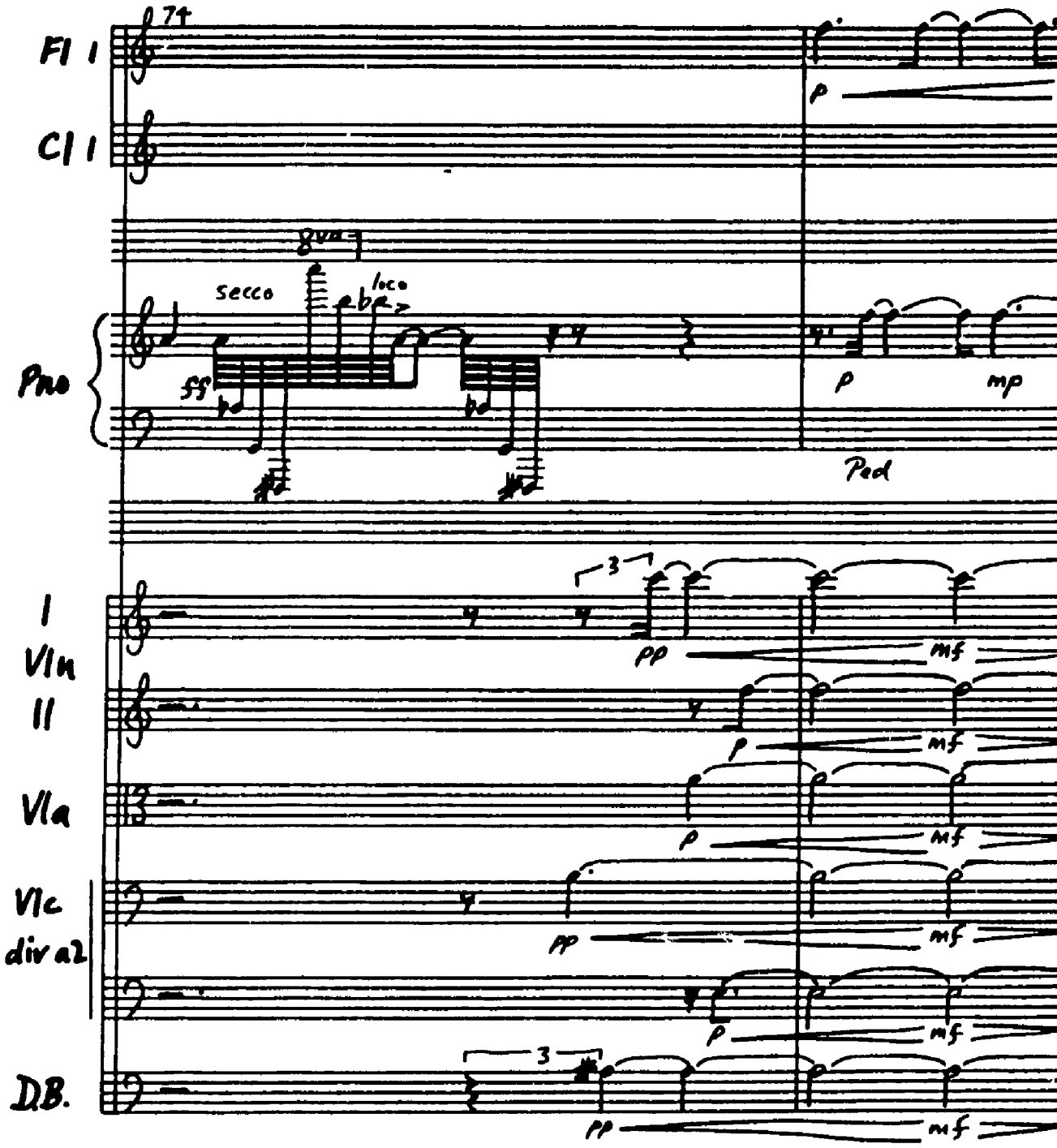

II change to E. H.
(mf)
f
f
f
f

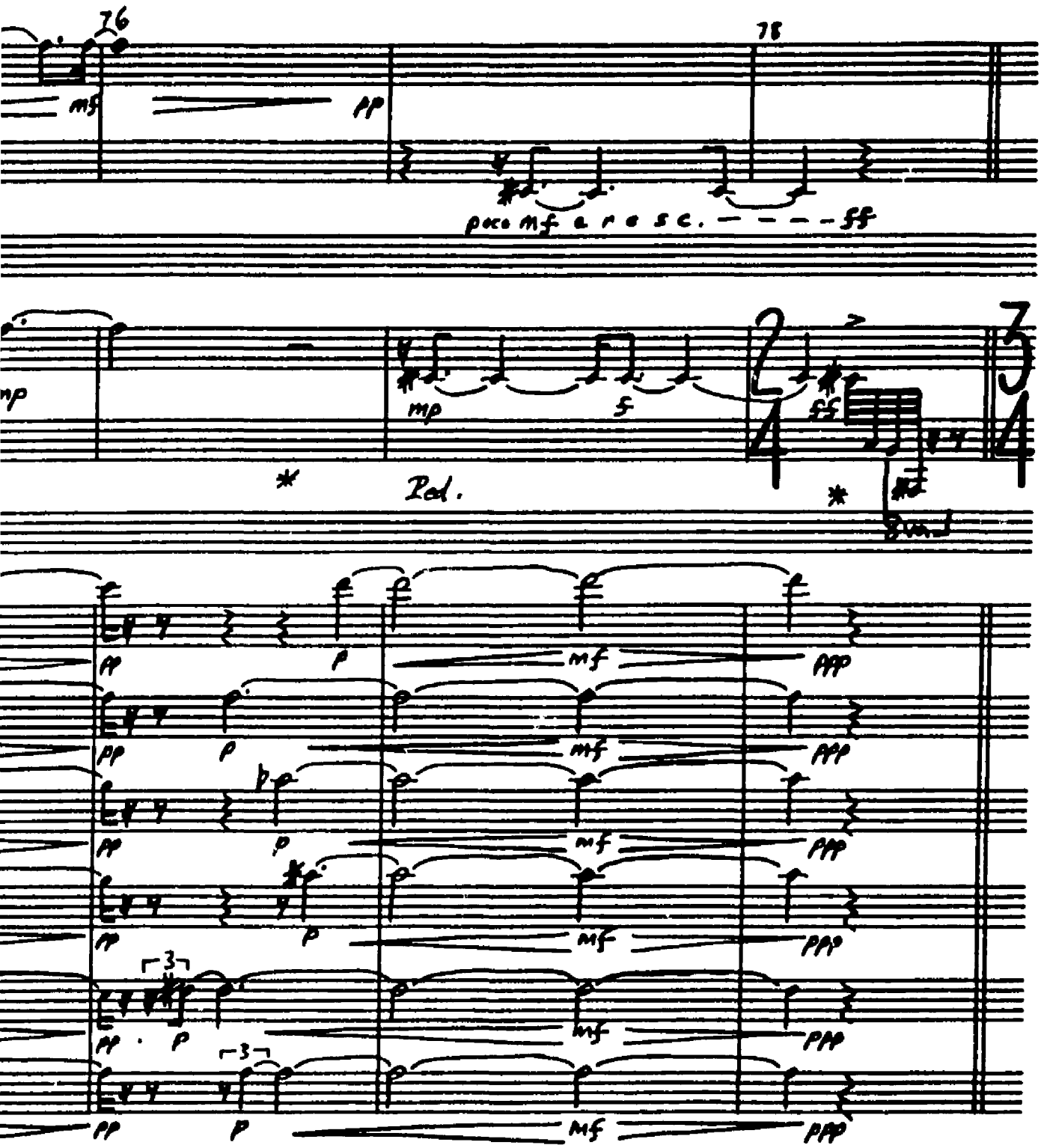

IV
Hrp.
f
p cresc. poco a poco
G♭
Pno
A
A
I
Vln
II
Vla
Vlc
DB

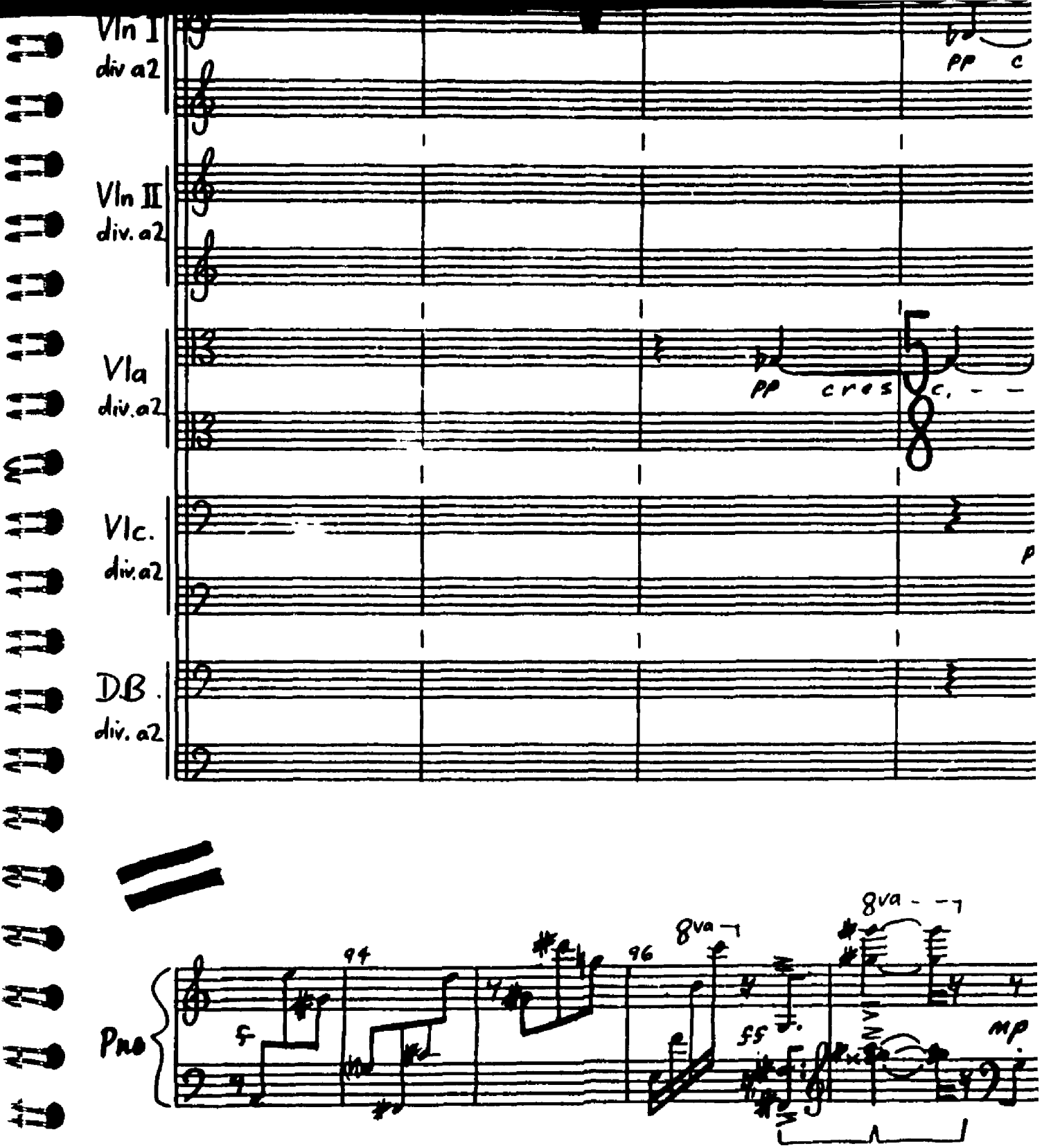

xyl.
poco
f
mf
E
fff
mp
f
3
Ped.
3
p
ff
dim.
3
p
3
ff
dim.


Hrp
mp
mf
Pno
8va
3
p
cresc. poco a poco
f
mf
I
Vln
II
Vla
ppp
pp
mf
Vlc
ppp
mp
mf
DB
ppp

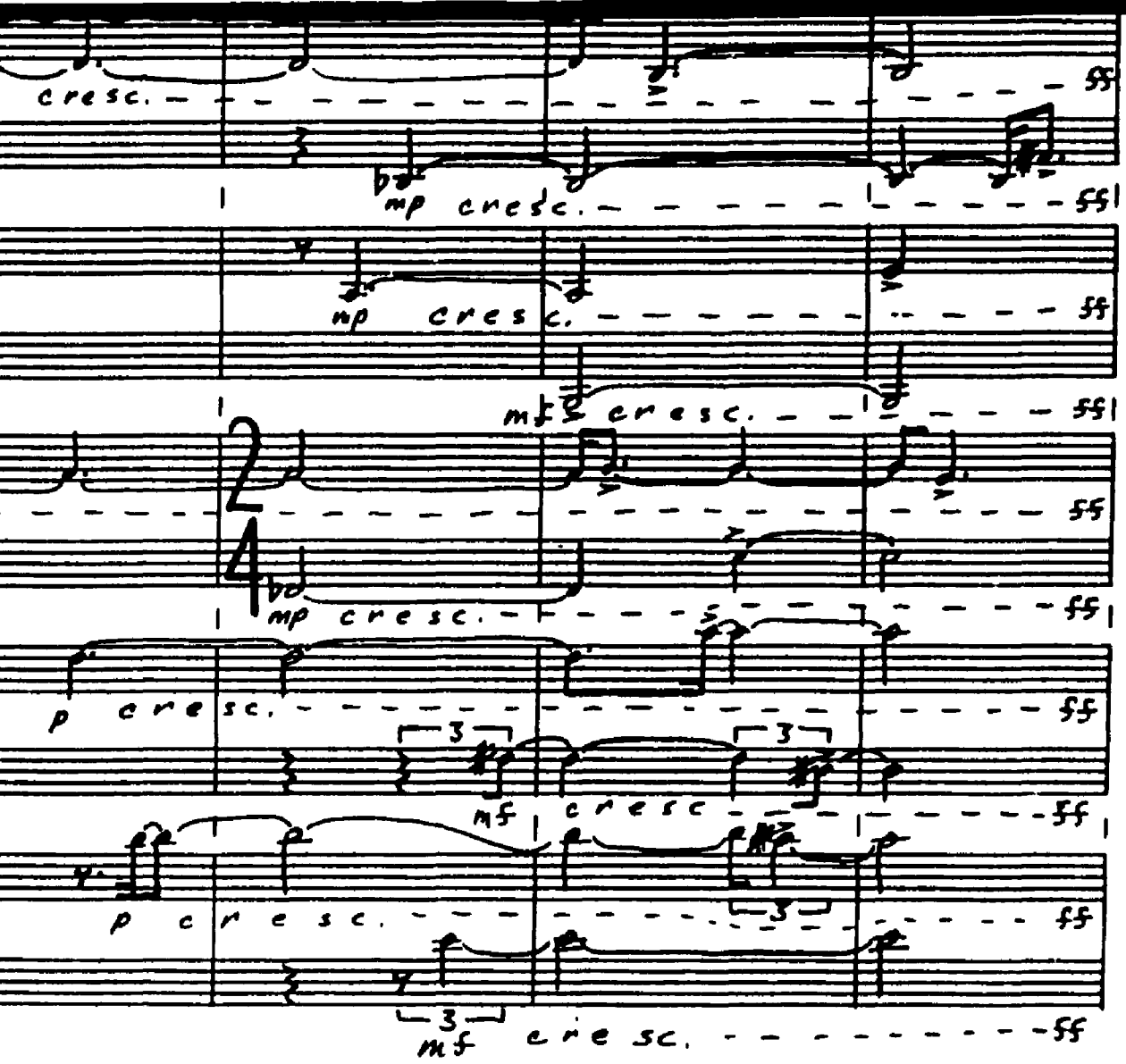

f
C♯ B♭ E♭
8va
f
f
secco - 1
*
Ped.
p
f
(non dim)
mp
f
(non dim)
p
f
(non dim)
mf<f
(non dim)
f (non dim)


71
Fl I
Cl I
8va
secco
loco
Pno
ff
p
mp
Ped
I
Vln
II
Vla
Vlc
div a2
DB.
3
pp
mf

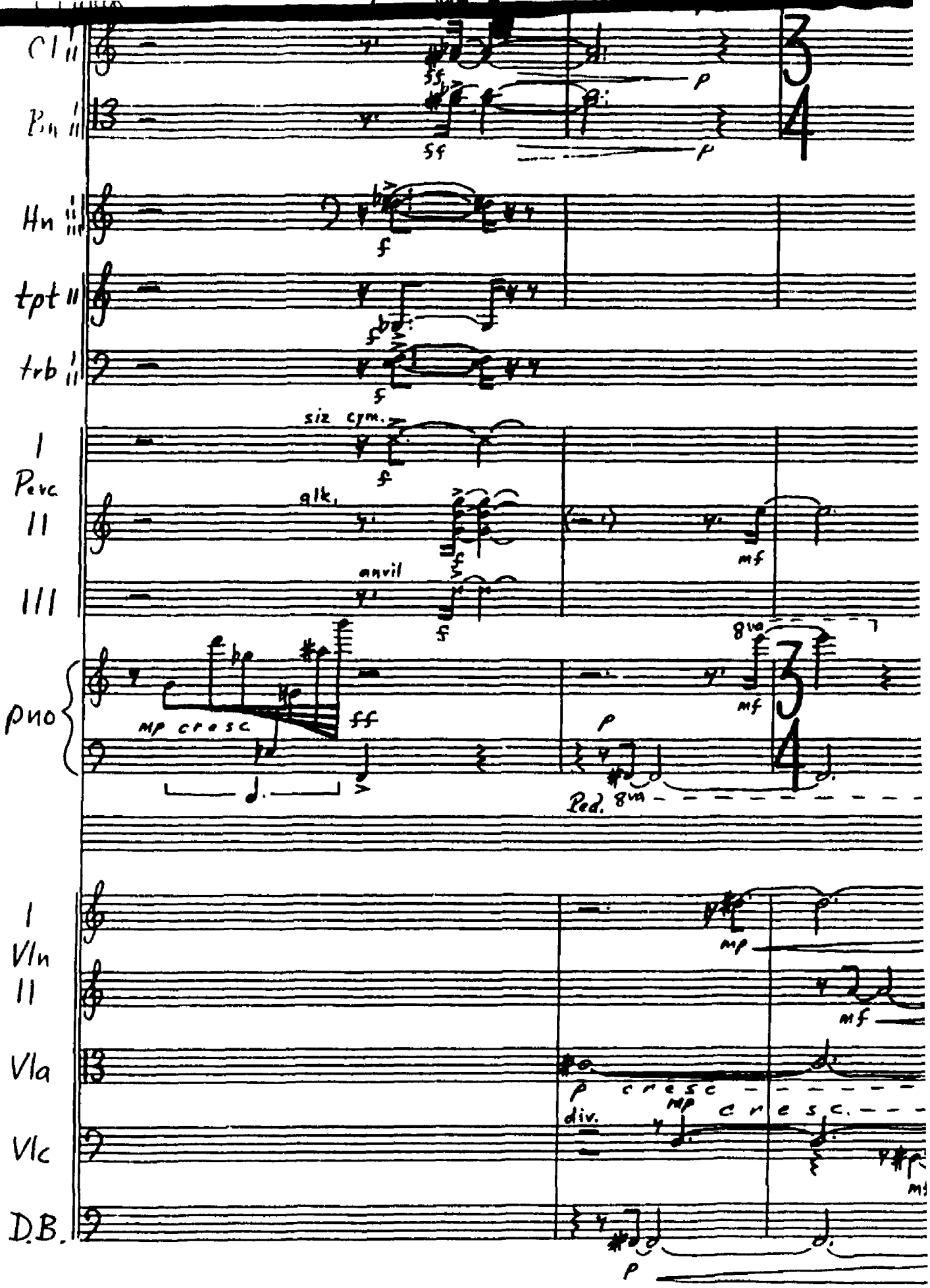

76
78
mf
pp
poco mf a r e s c. — — — — ff
mp
mp
f
ff
Ped.
pp
p
mf
ppp

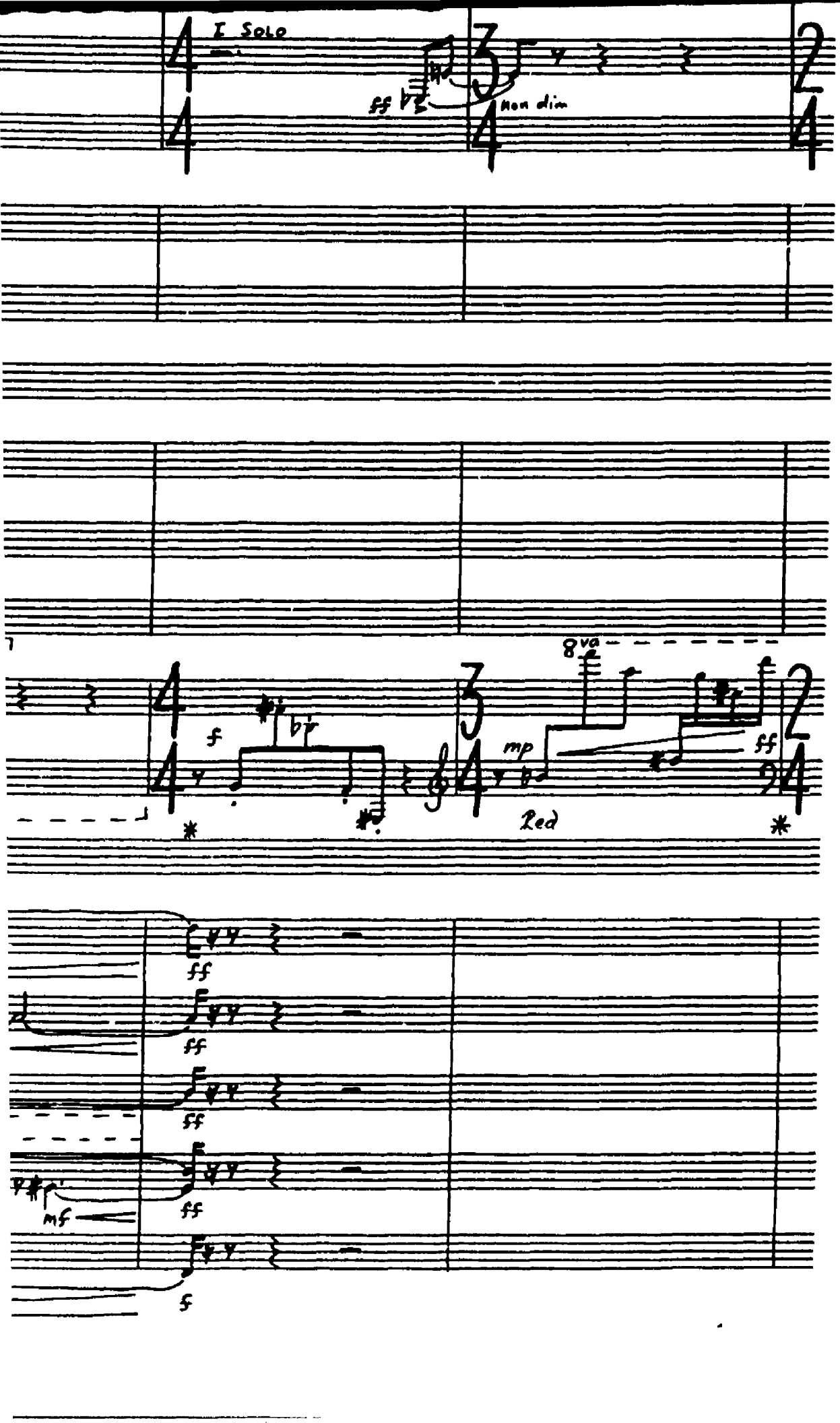

Vln I
div a2
pp c
Vln II
div. a2
Vla
div. a2
pp cres c.
Vlc.
div. a2
p
DB.
div. a2

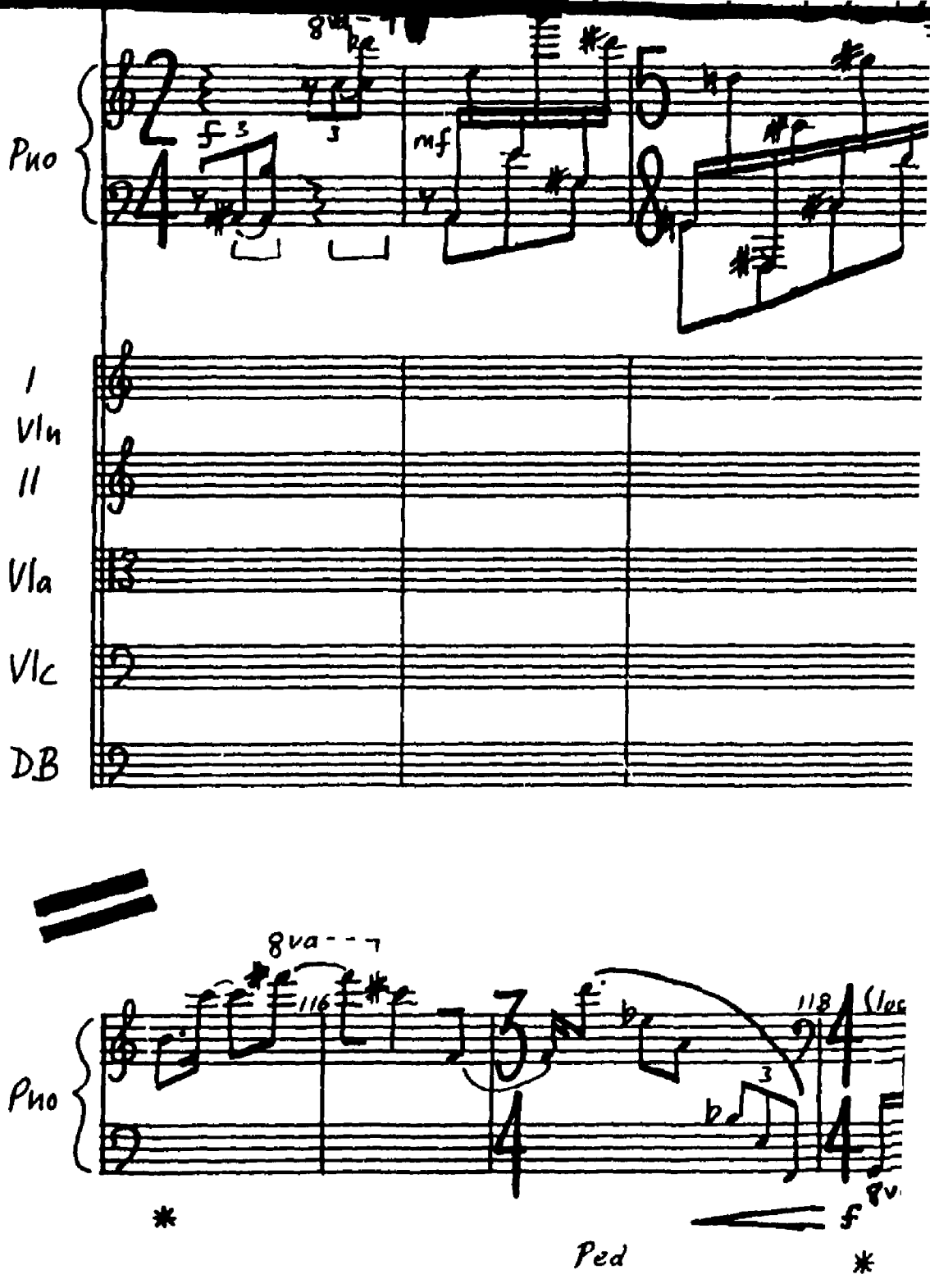
Pno
94
96
8va
8va
f
ff
mp

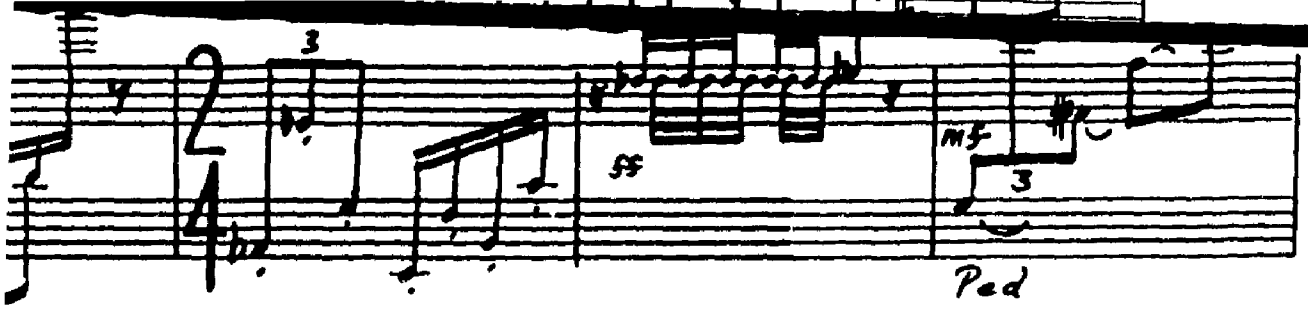

cresc.
ff
mp cresc.
mf cresc.
p cresc.
3
mf cresc.

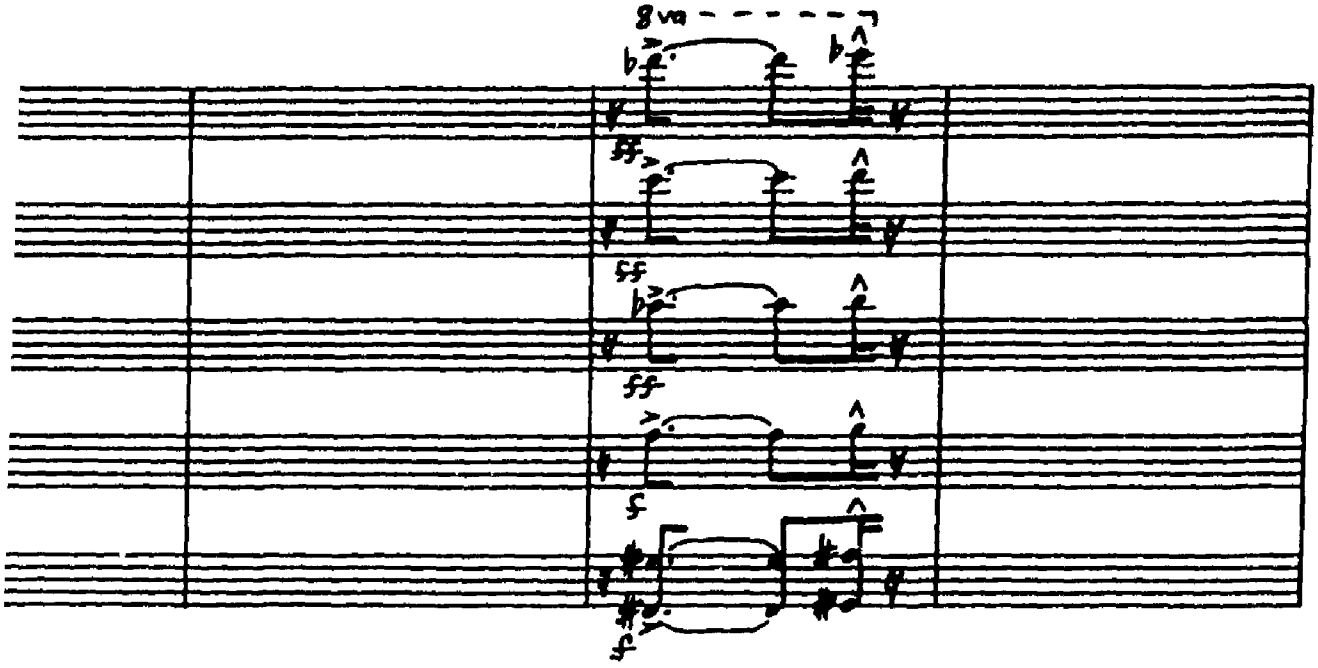
8va
mp
cresc
Led

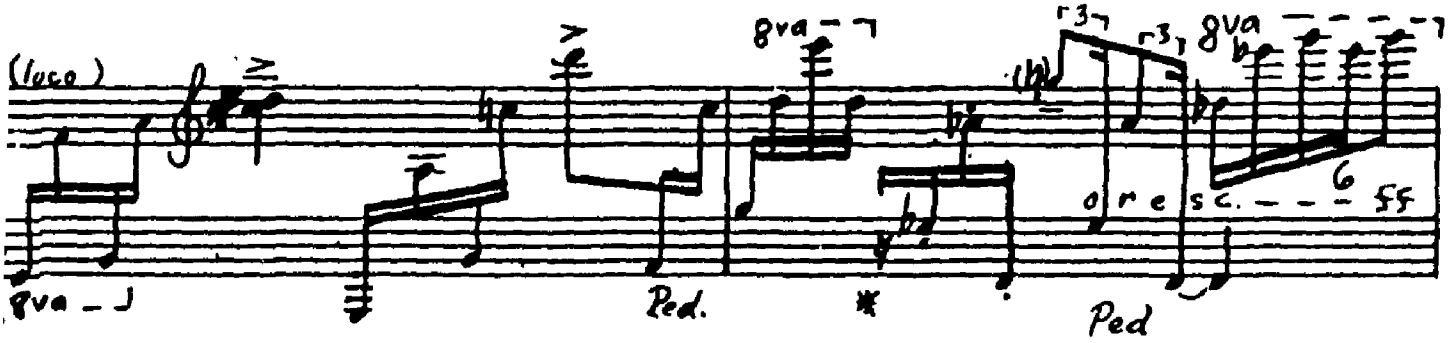

Cl II
Bn II
Hn III
tpt II
trb II
I
Perc
II
III
sus cym.
glk.
anvil
Pno
mp cresc
ff
8va
Ped. 8va
I
Vln
II
Vla
Vlc
D.B.
div.
cresc
mp cresc.


I Solo
ff
non dim
8va
f
mp
ff
Red
ff
ff
ff
mf
ff
f

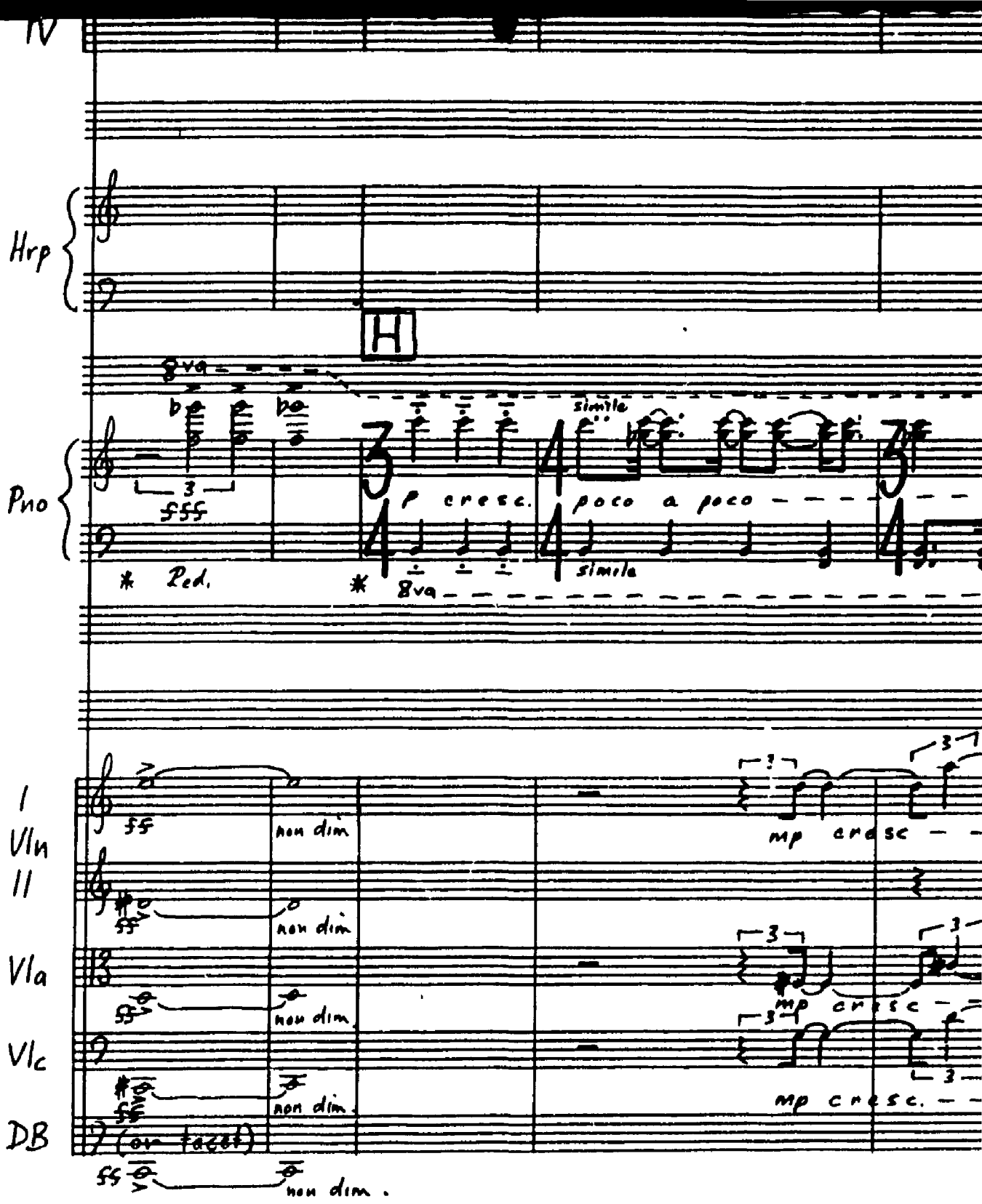

Pno
I
Vln
II
Vla
Vlc
DB
8va
Pno
Ped

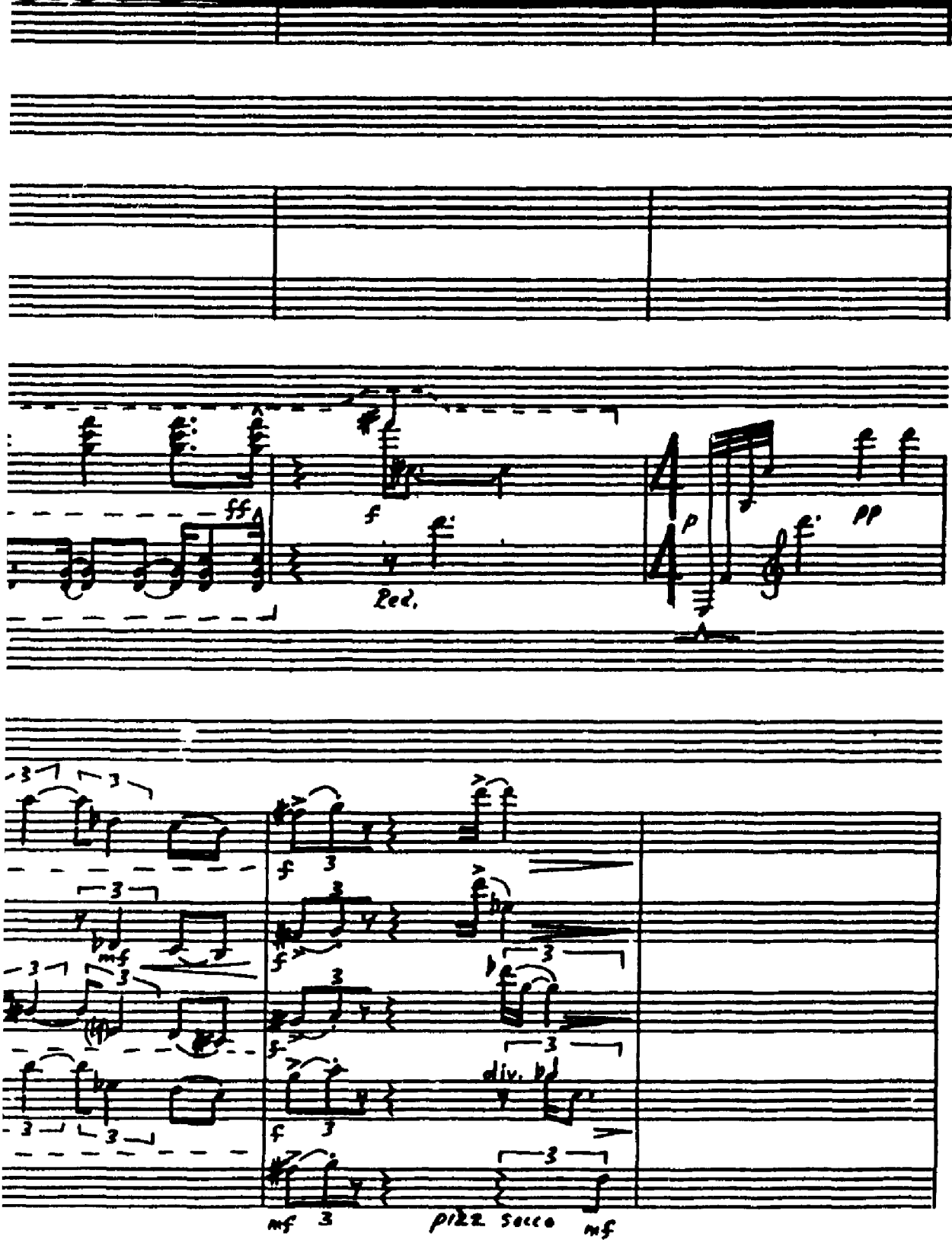

ff
mf
Ped

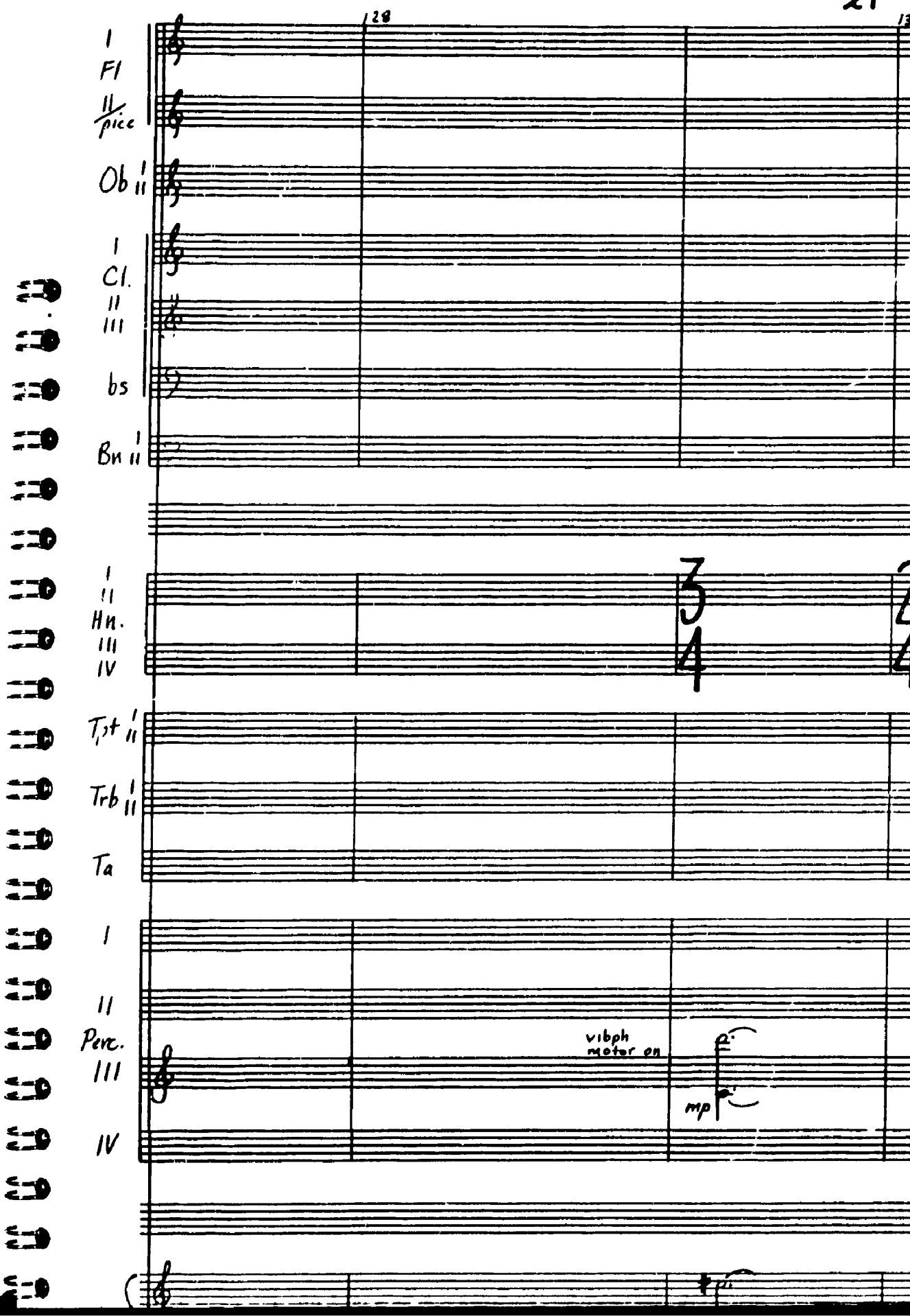

8va
ff
ff
ff
f
f

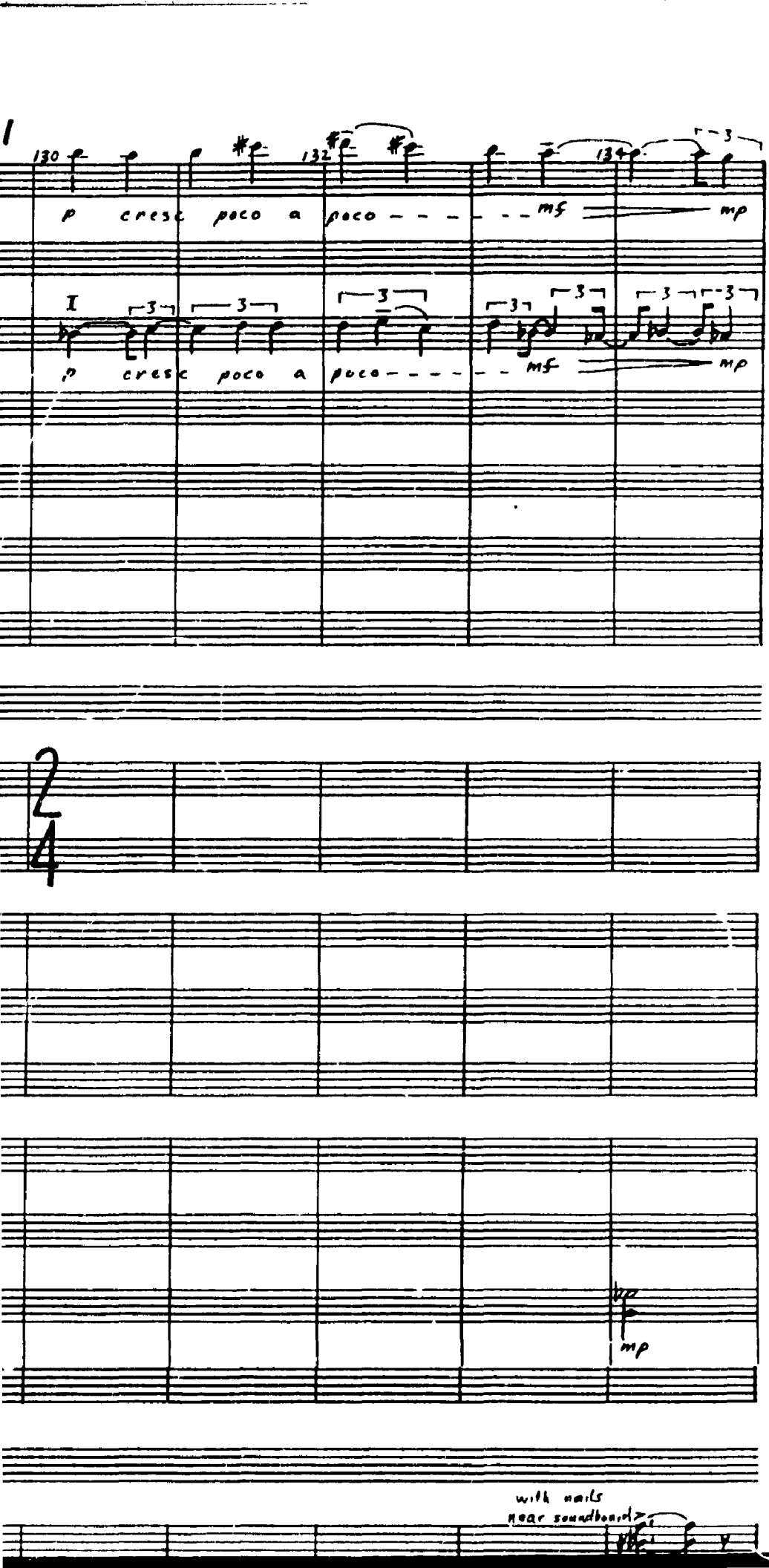

(loco)
8va
8va
8va
Ped.
Ped
o r e s c.
ff

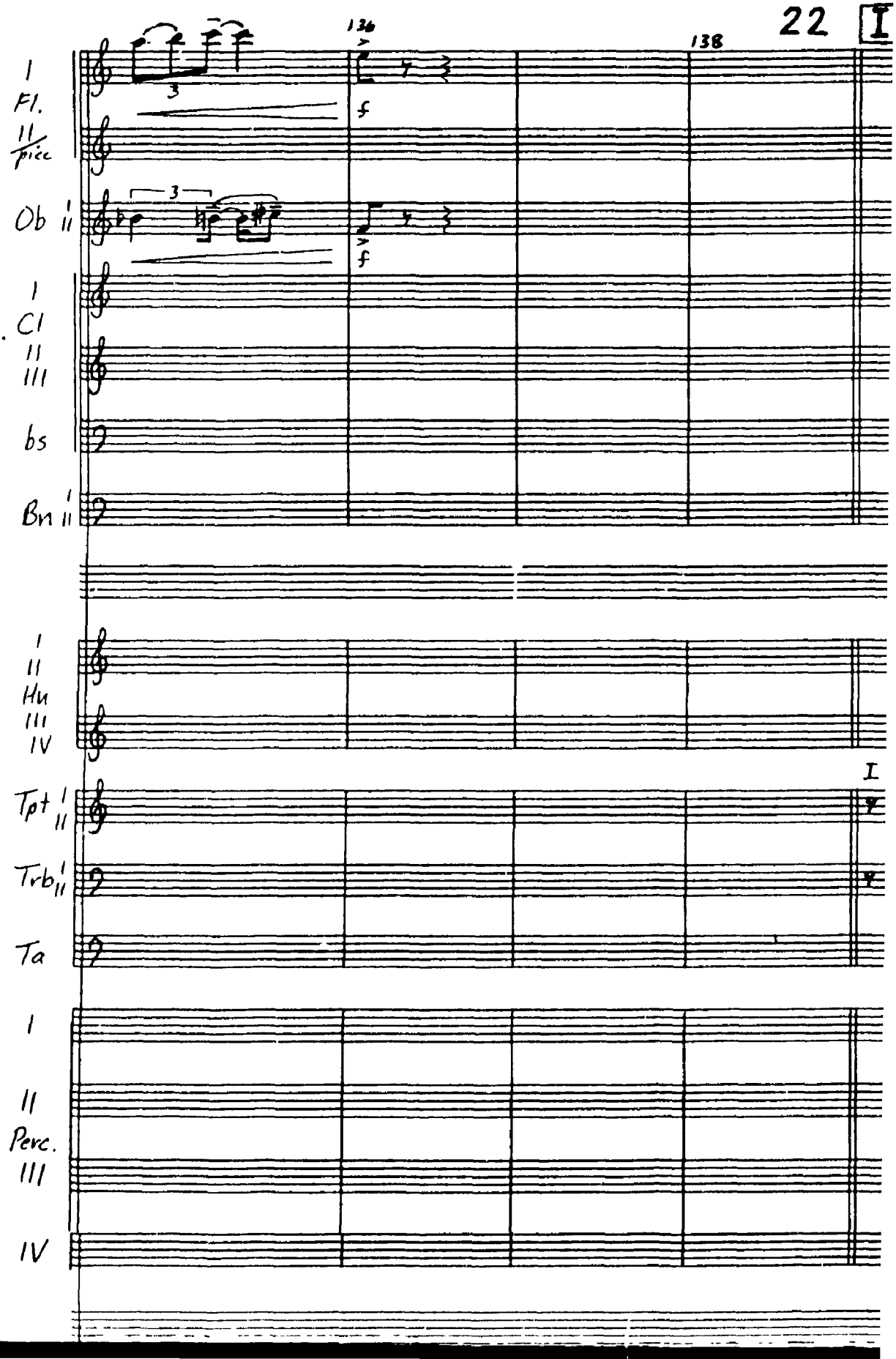
*

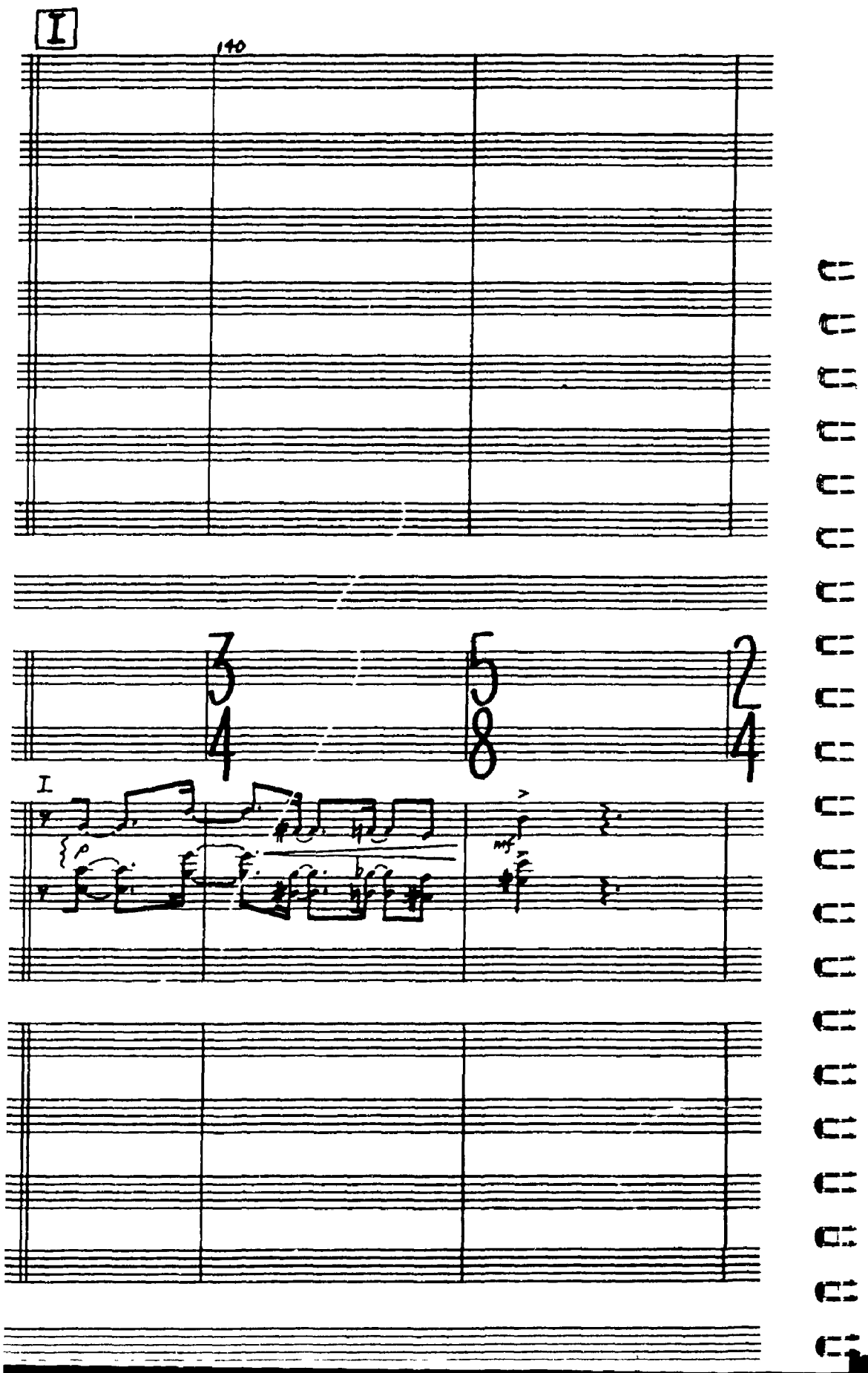

IV
Hrp
H
8va
simile
Pno
fff
p cresc.
poco a poco
simile
* Ped.
* 8va
I
Vln
II
Vla
Vlc
DB
ff
non dim.
(on facet)
mp cresc.

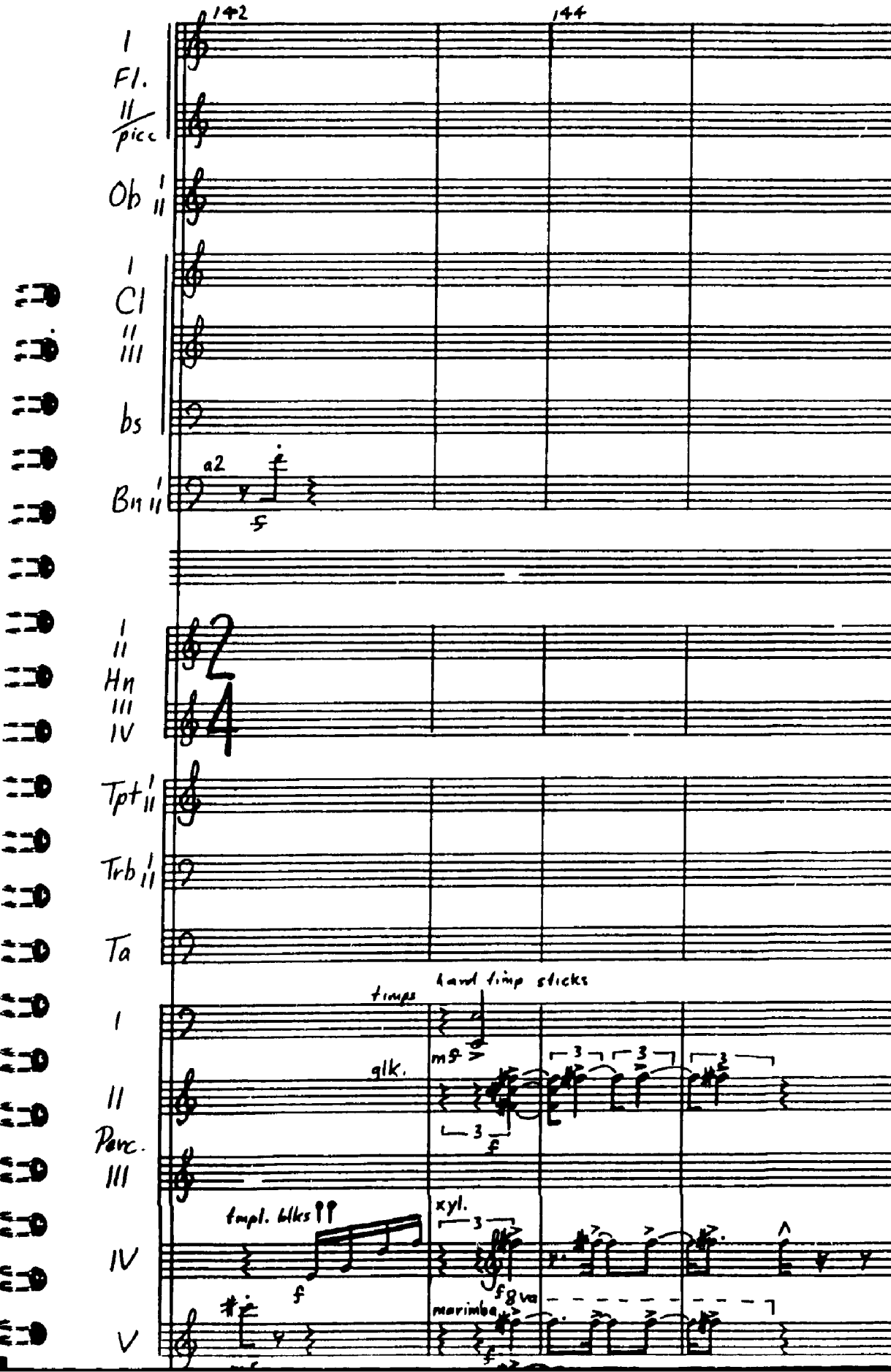

ff
f
Ped.
p
pp
mf
f
div.
mf
pizz. secco
mf

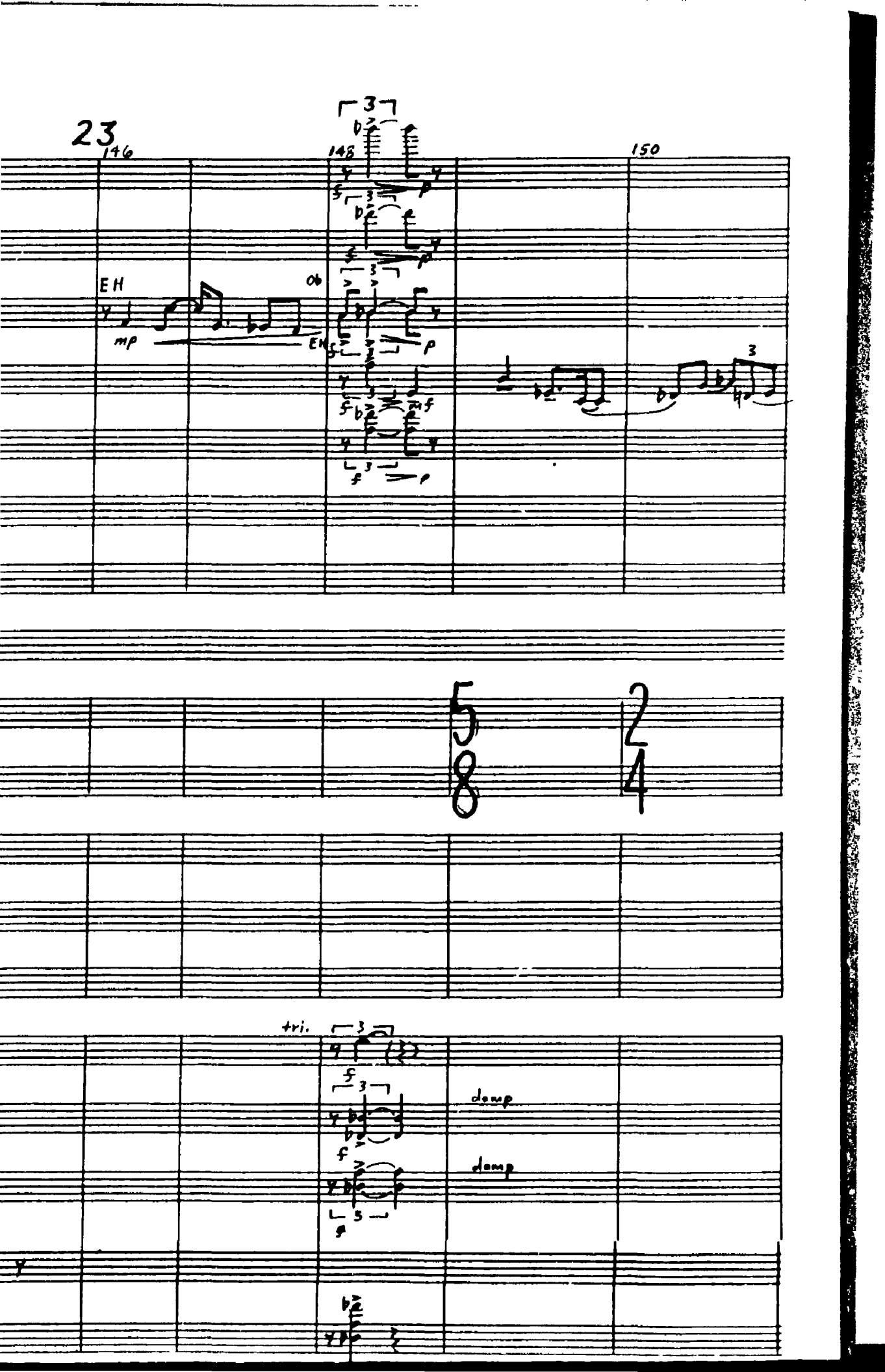

128
I
Fl
II
pice
Ob I
II
I
Cl.
II
III
bs
Bn I
II
I
II
Hn.
III
IV
3
4
T,st I
II
Trb I
II
Ta
I
II
Perc.
III
IV
vibph
motor on
mp

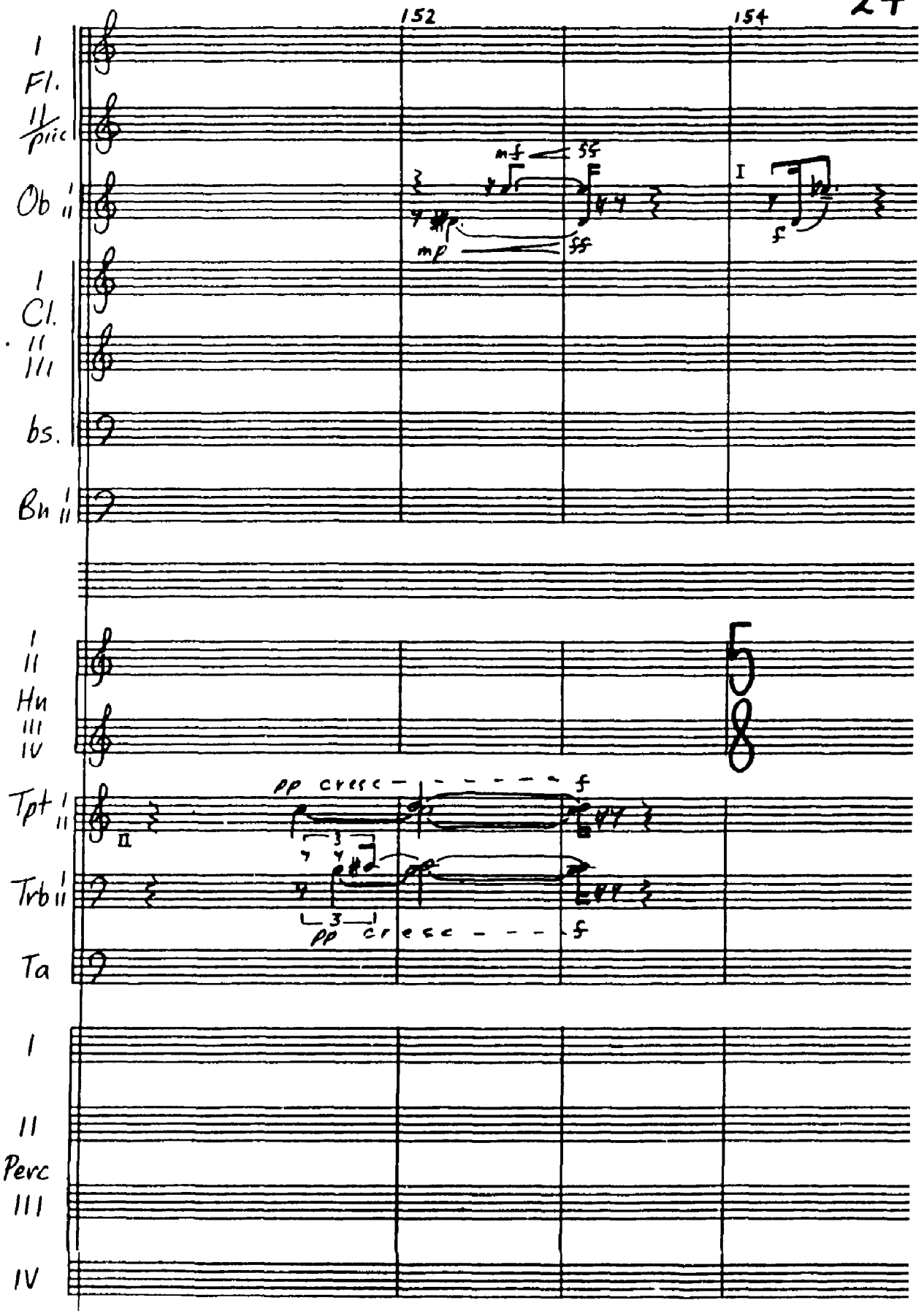

130
132
134
p cresc poco a poco
mf
mp
I
p cresc poco a poco
mf
mp
2
4
mp
with nails
near soundboard

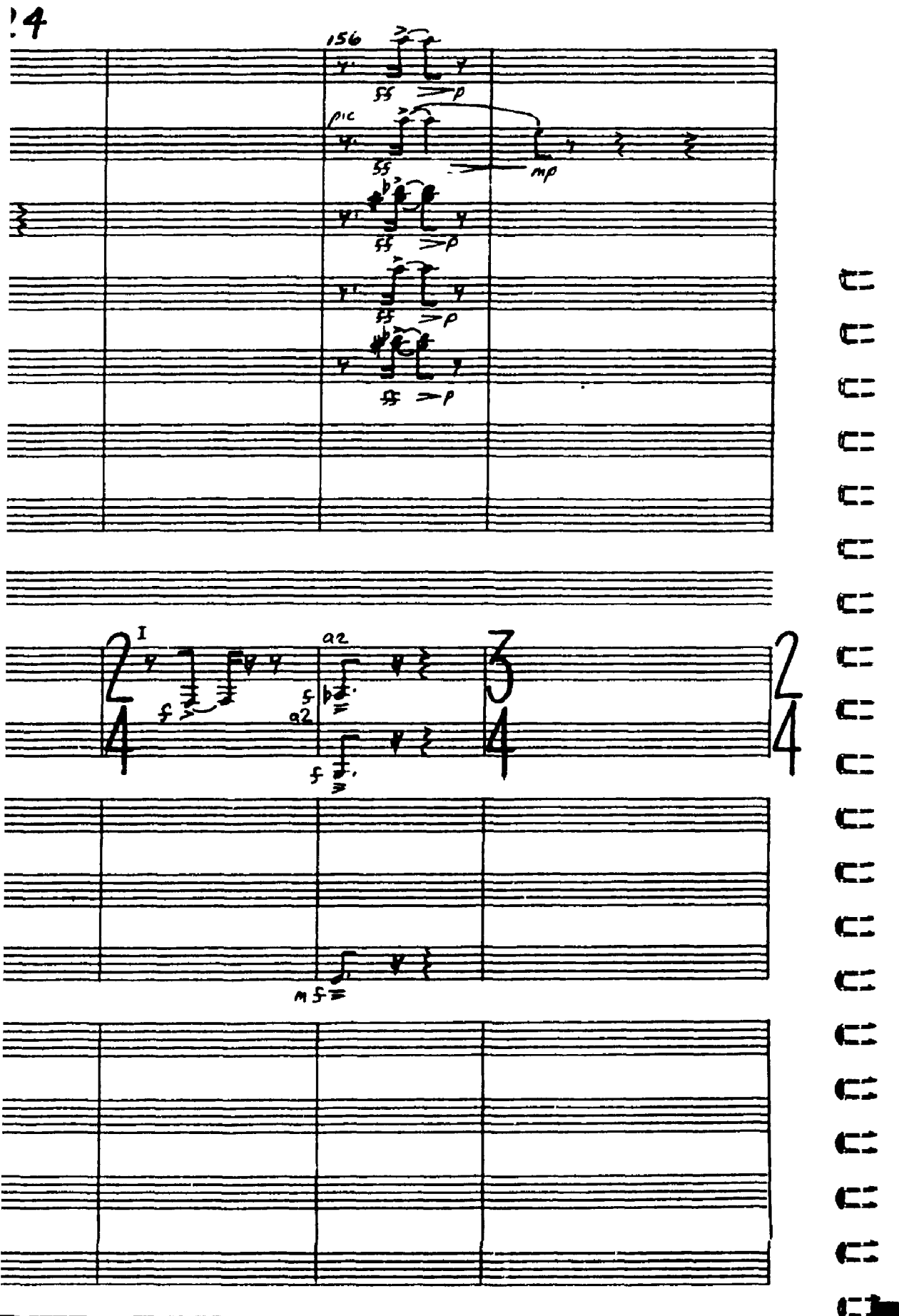

136
138
I
I
Fl.
Picc
Ob
Cl
bs
Bn
Hn
Tpt
Trb
Ta
Perc.


I
140
3/4
5/8
2/4
I
p
mf

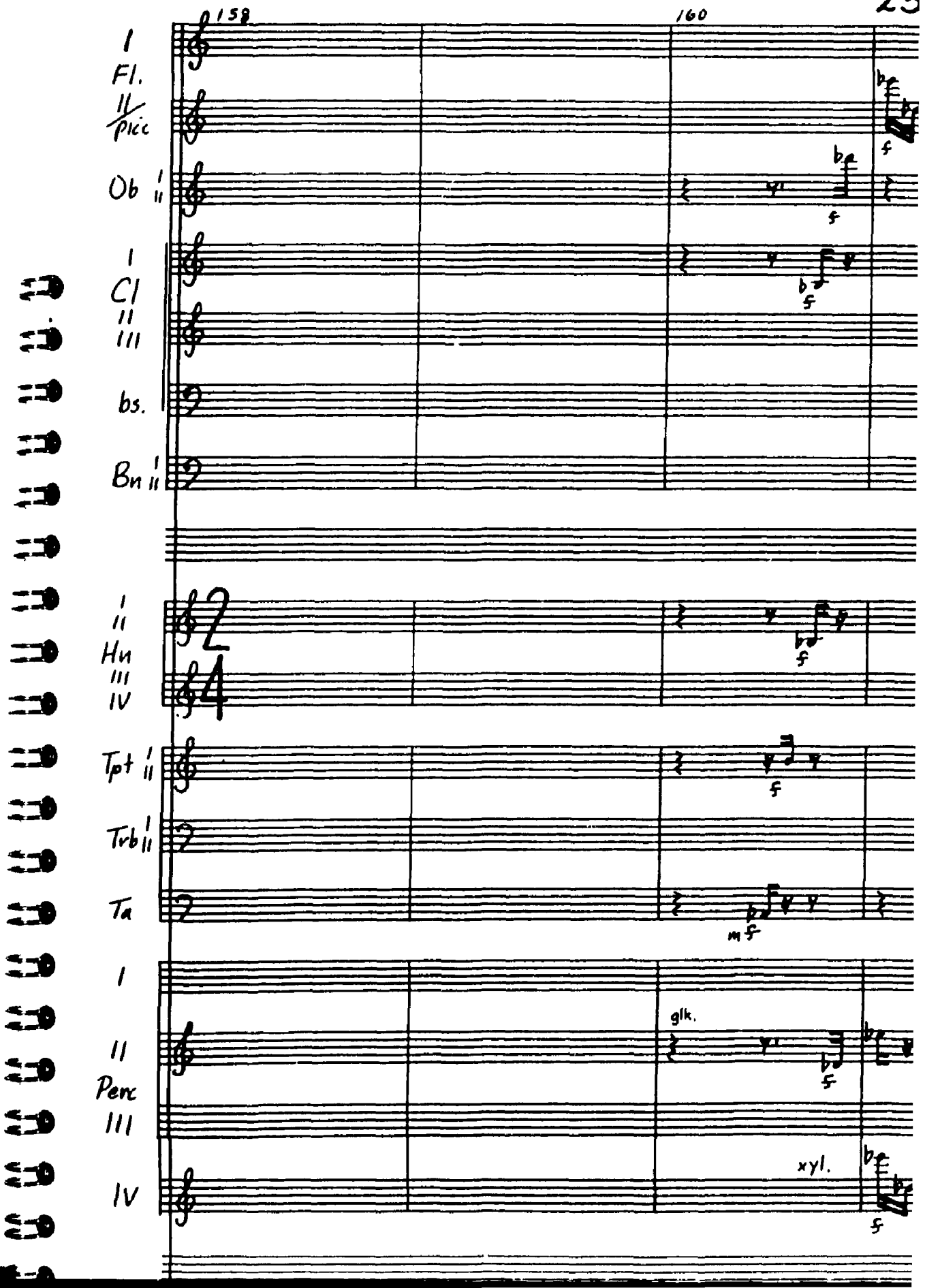

142
144
I
Fl.
II
picc
Ob I II
I
Cl
II
III
bs
Bn I II
a2
f
Hn I II III IV
Tpt I II
Trb I II
Ta
timps
hard timp sticks
I
glk.
mf
II
Perc.
III
tmpl. blks
f
xyl.
f
8va
IV
marimba
f
V

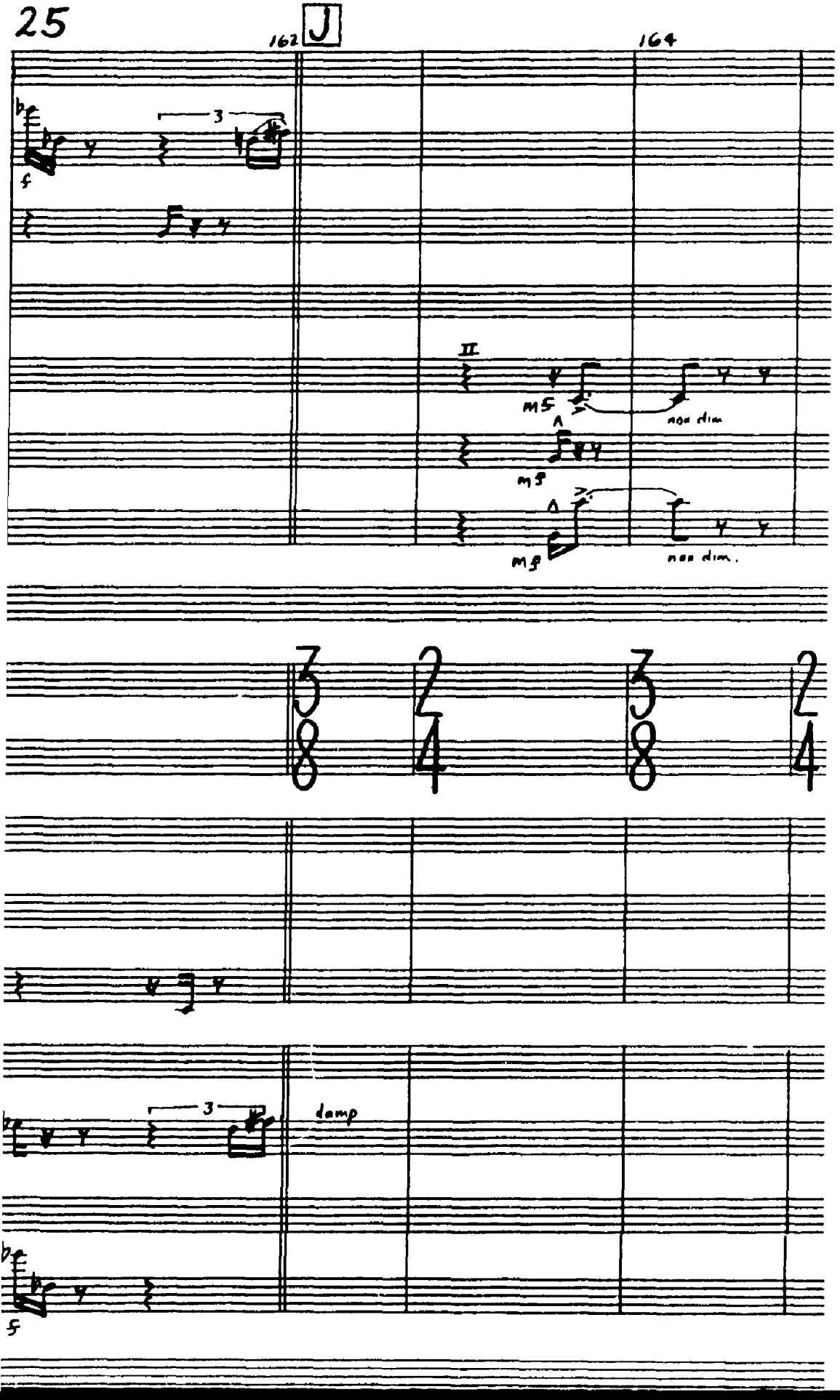

23
146
148
150
EH
Ob
mp
EH
5/8
2/4
tri.
damp
damp

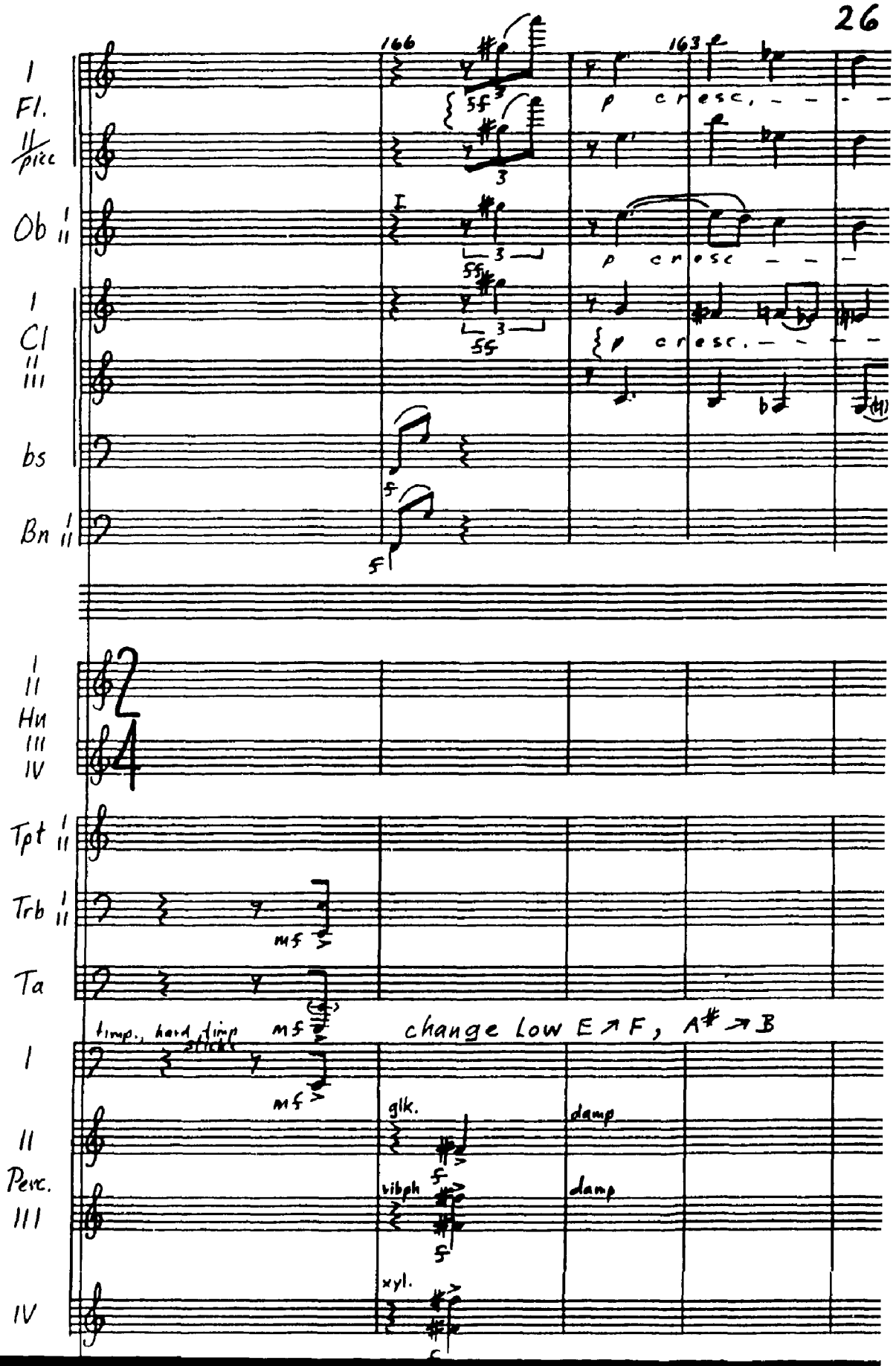

152
154
I
Fl.
II
picc
Ob I
II
mf
ff
mp
ff
I
f
I
Cl.
II
III
bs.
Bn I
II
I
II
Hn
III
IV
5
8
Tpt I
II
pp cresc
f
II
Trb I
II
pp cresc
f
Ta
I
II
Perc
III
IV

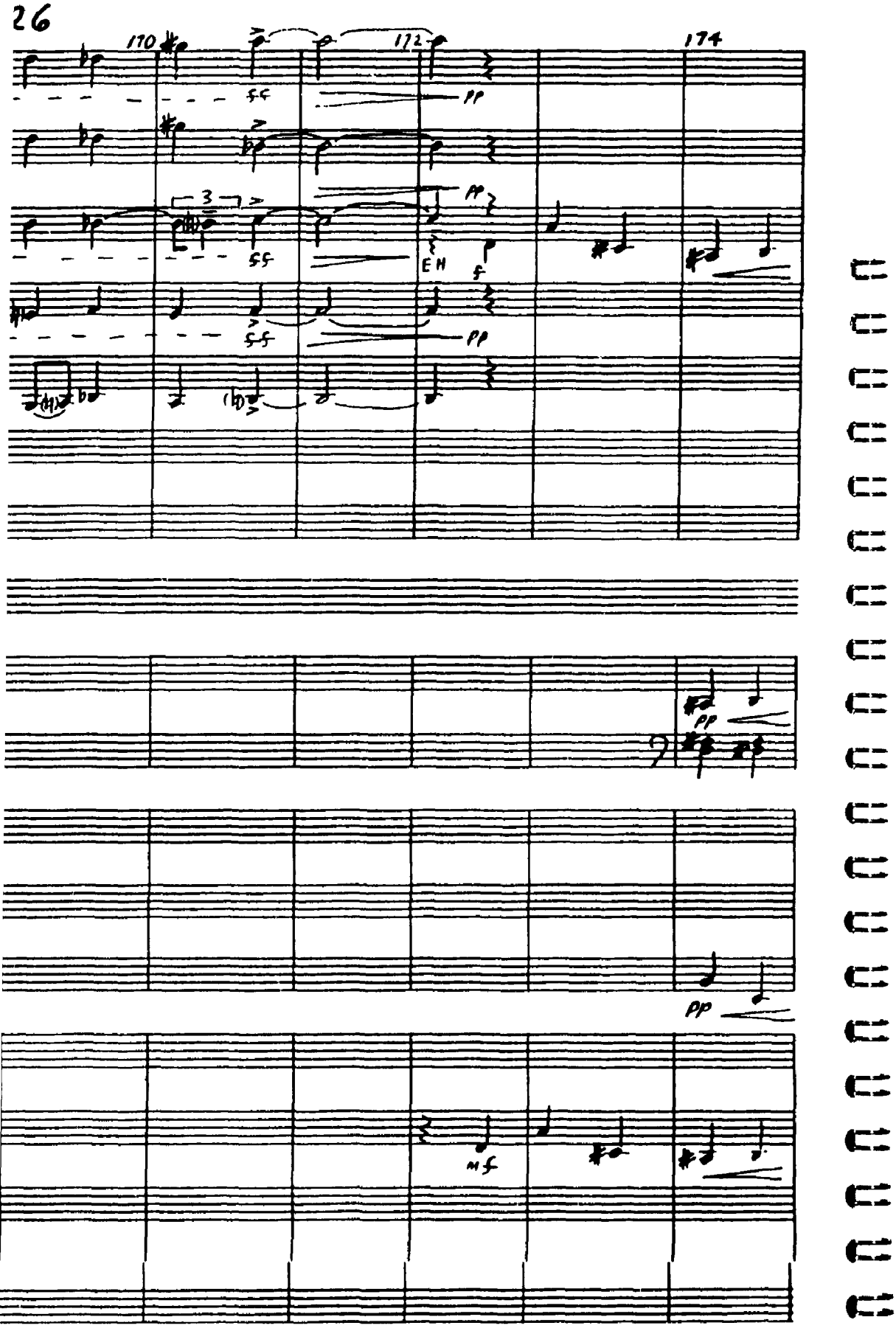


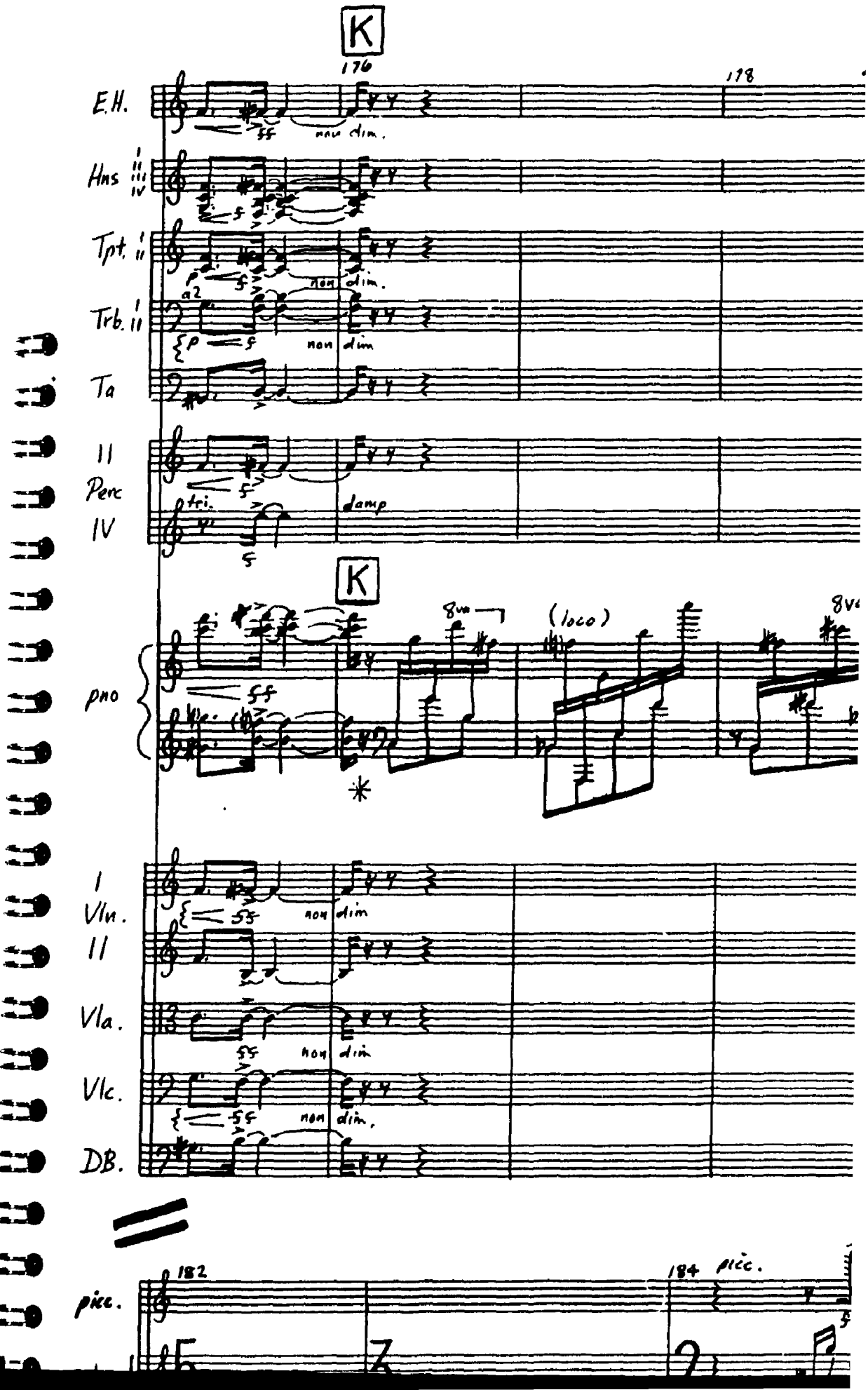
24
156
ff
p
pic
mp
I
a2
f
mf

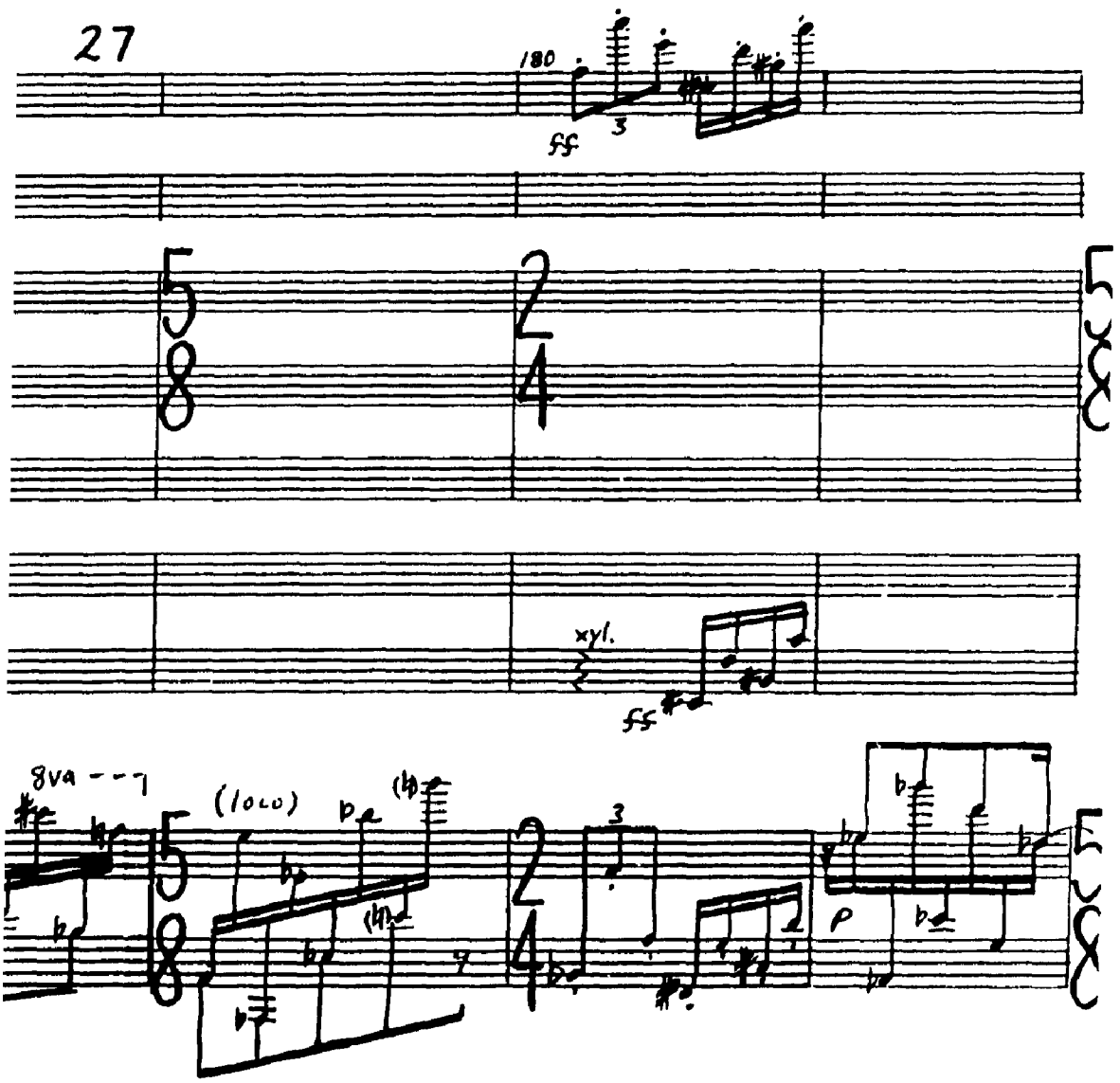

158
160
I
Fl.
II/Picc
Ob I II
I
Cl II III
bs.
Bn I II
I II
Hn III IV
Tpt I II
Trb I II
Tu
I
II
Perc III
IV
glk.
xyl.
f
mf

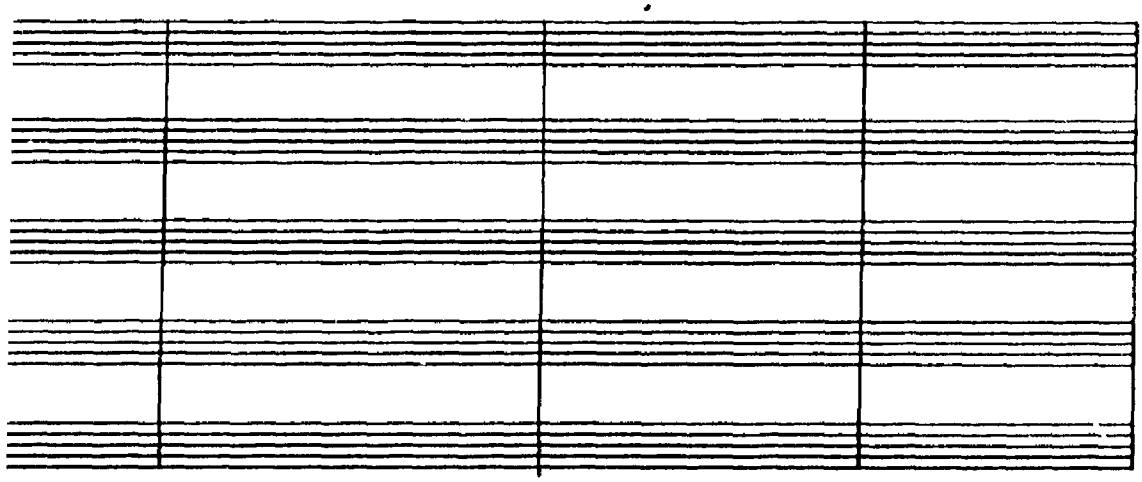

162
J
164
3
f
II
mf
non dim
mf
mf
non dim.
3
8
2
4
3
8
2
4
3
damp
f

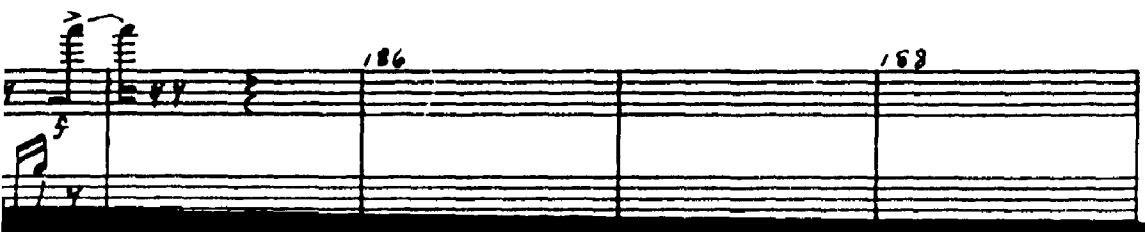

166
163
I
Fl.
II
picc
Ob I
II
Cl I
II
III
bs
Bn I
II
Hn I
II
III
IV
Tpt I
II
Trb I
II
Ta
I
II
Perc.
III
IV
p cresc.
mf
timp., hard timp sticks
change Low E → F, A# → B
glk.
damp
vibph
xyl.

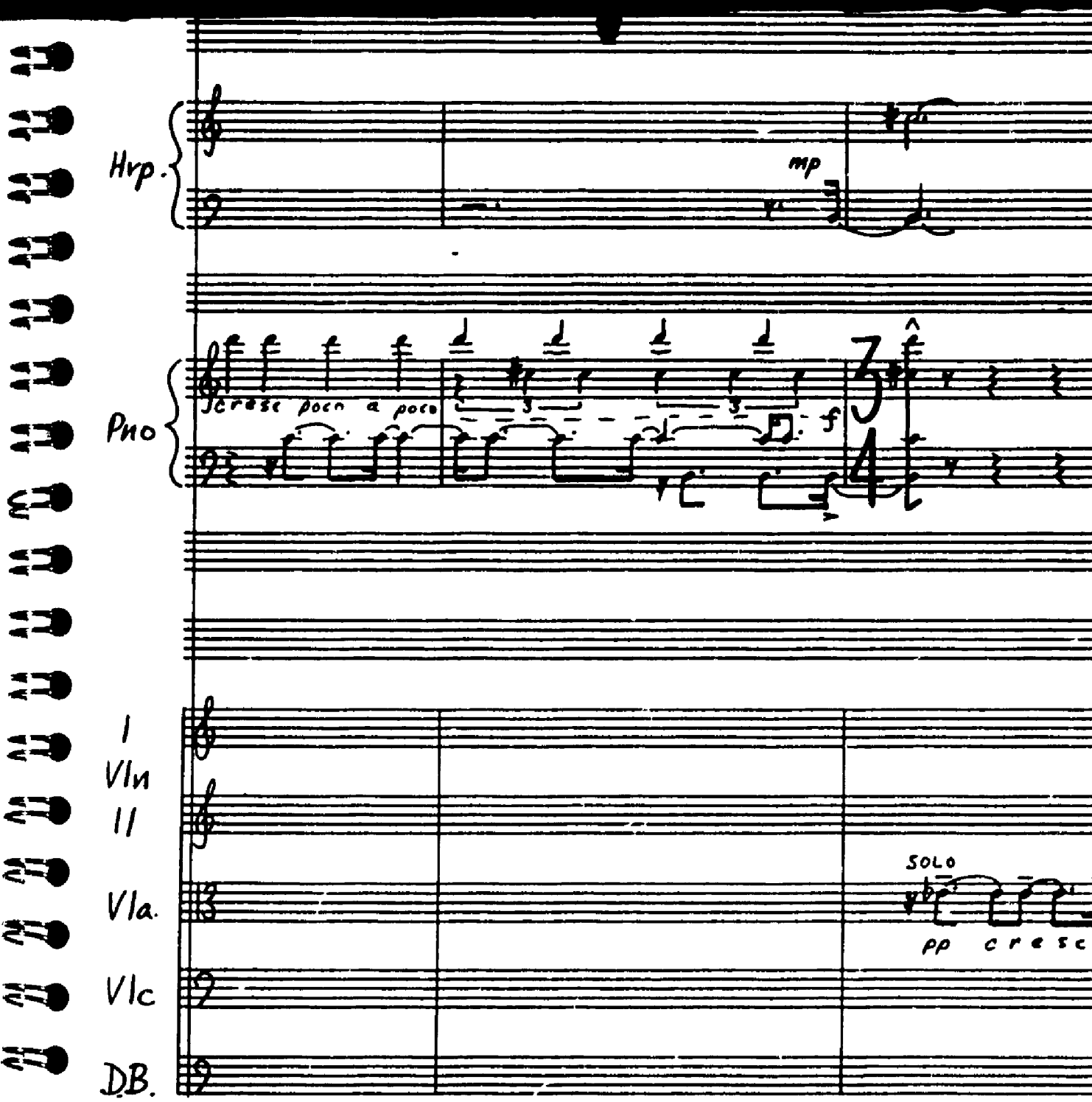

170
172
174
ff
pp
3
ff
EH
f
ff
pp
pp
pp
mf

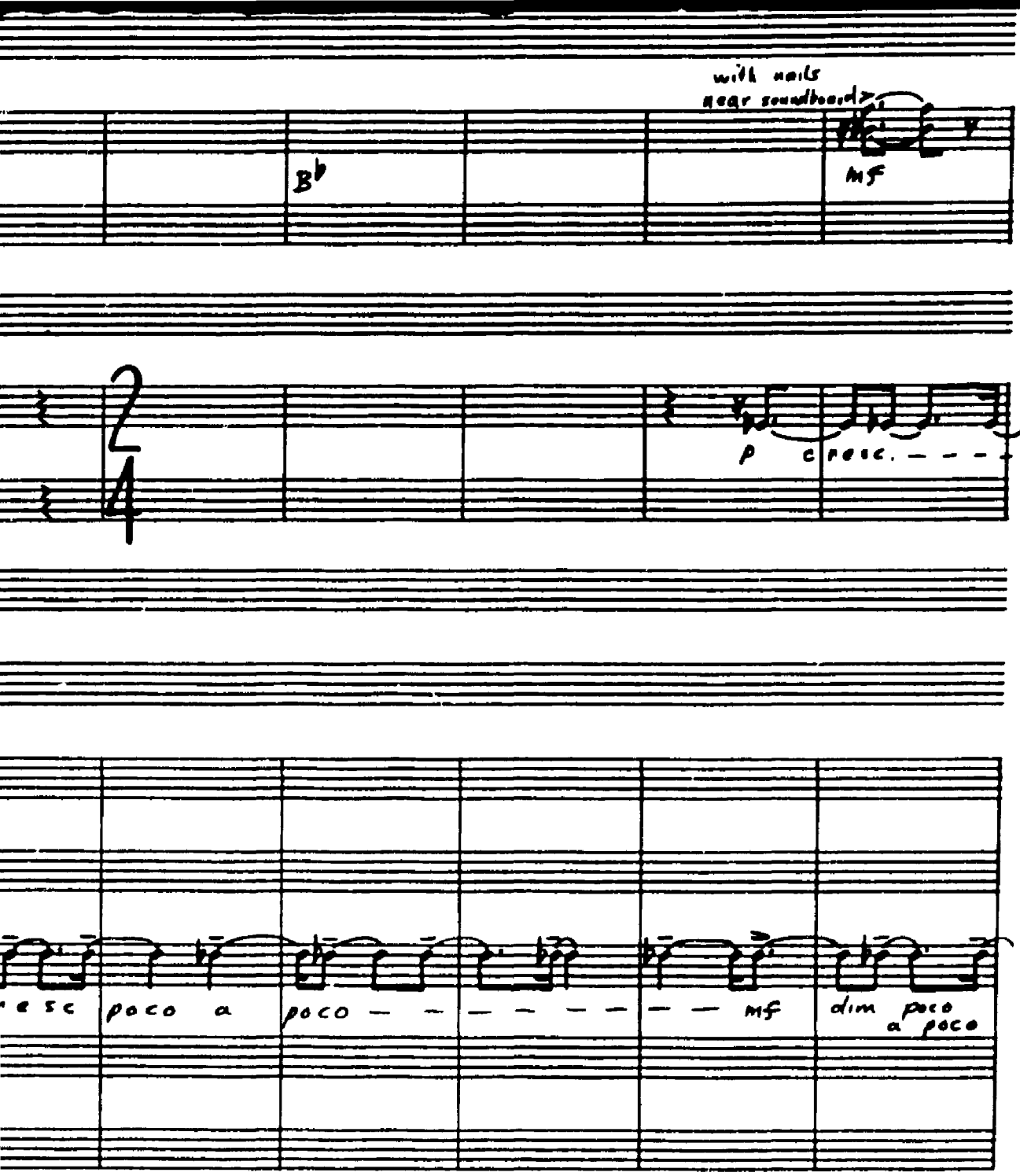

K
176
178
E.H.
ff
non dim.
Hns
I
II
III
IV
Tpt.
I
II
p
f
non dim.
Trb.
I
II
a2
p
f
non dim
Ta
II
Perc
IV
tri.
f
damp
K
pno
8va
(loco)
8va
ff
*
I
Vln.
II
ff
non dim
Vla.
ff
non dim
Vlc.
ff
non dim.
DB.
182
184
picc.
picc.
f

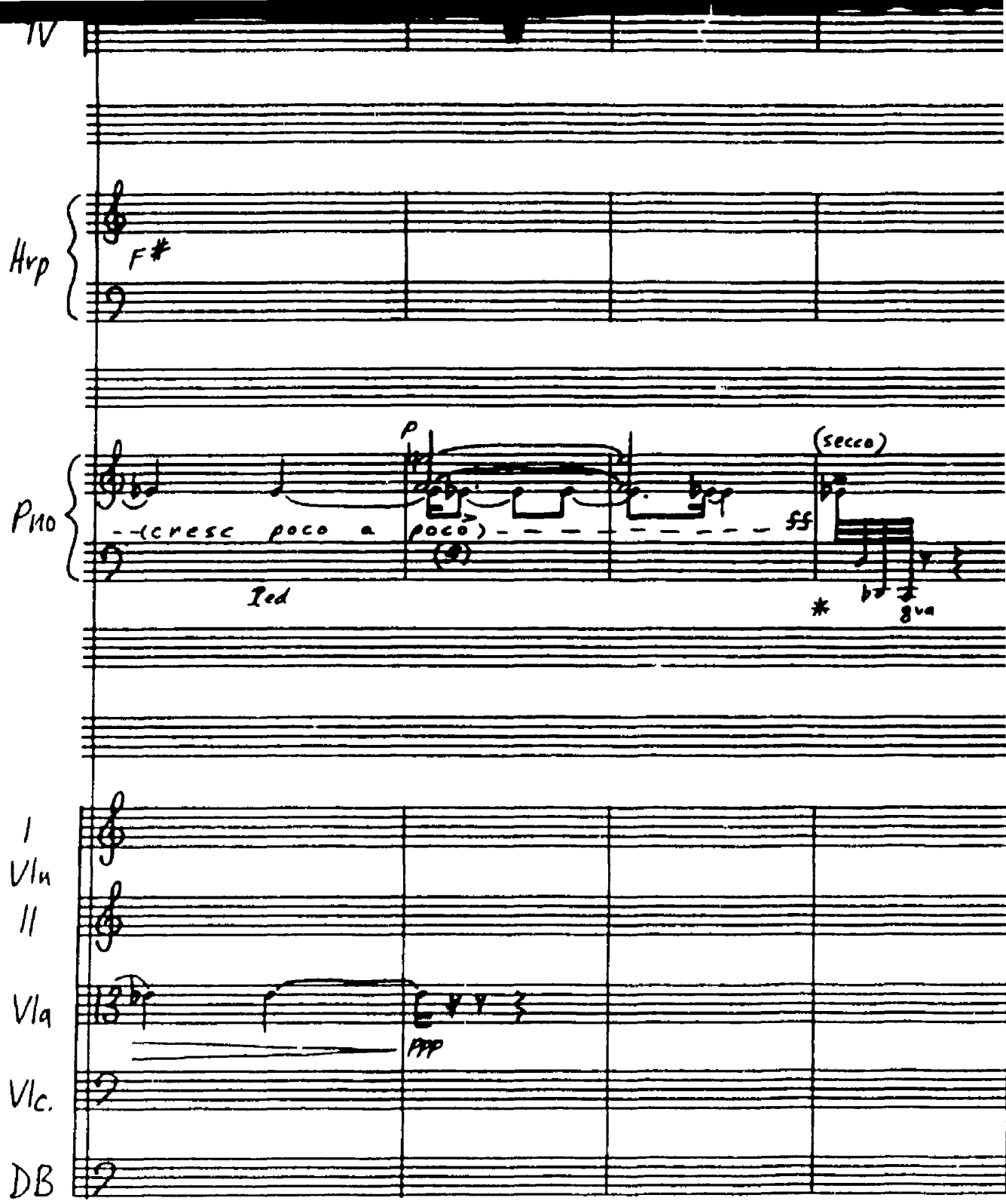

180
ff
3
xyl.
ff
8va
(loco)
3
p

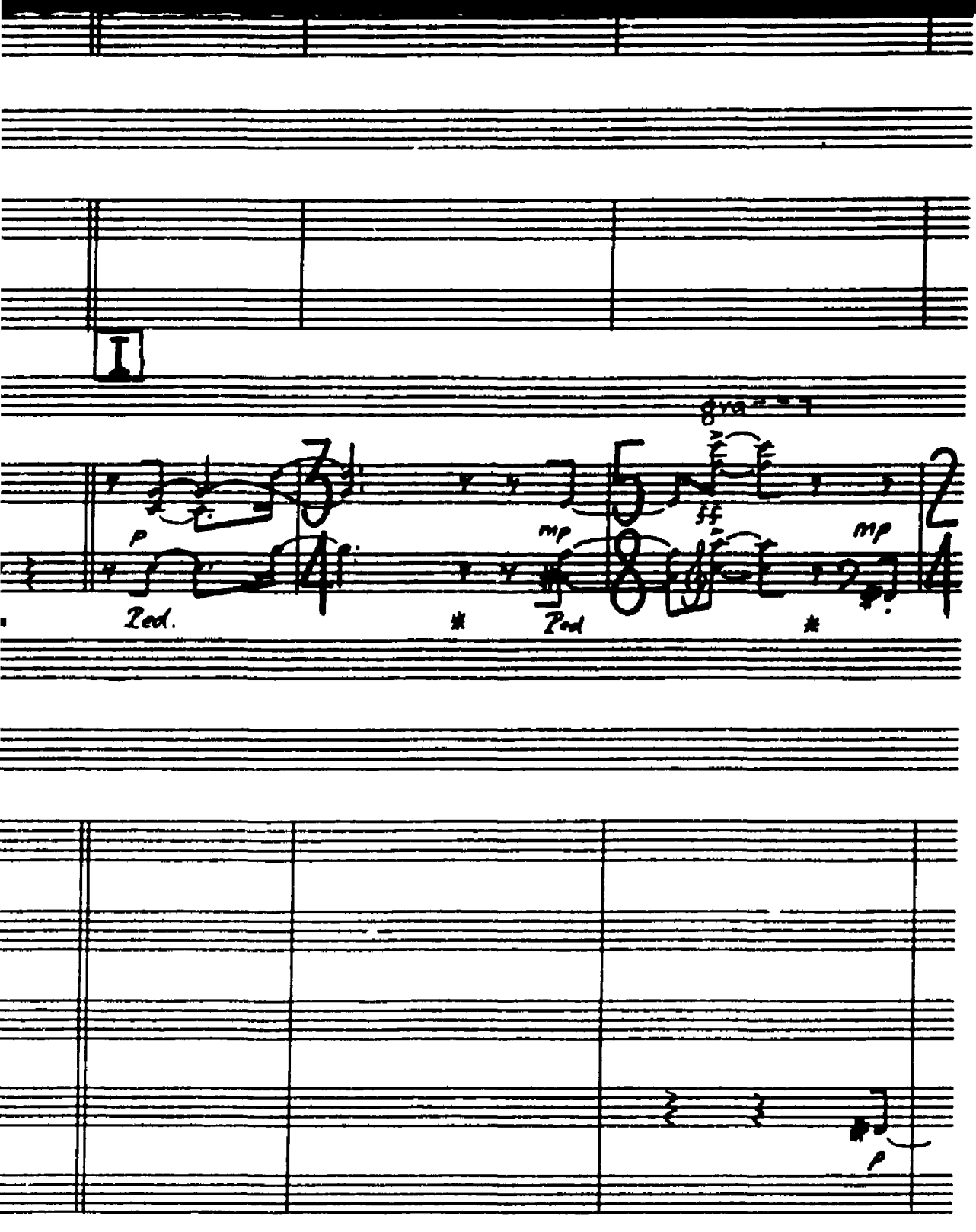


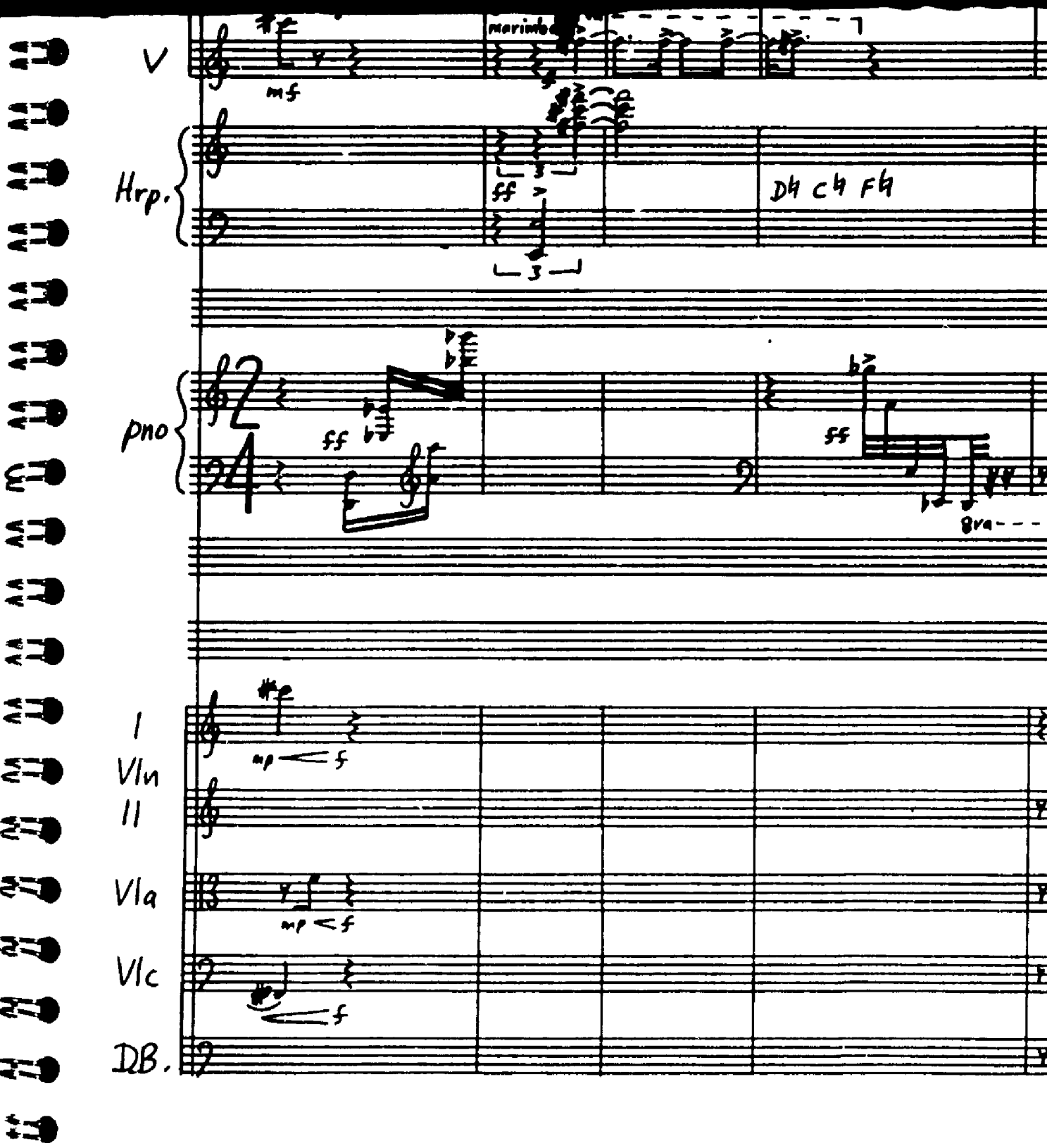

186
168
f

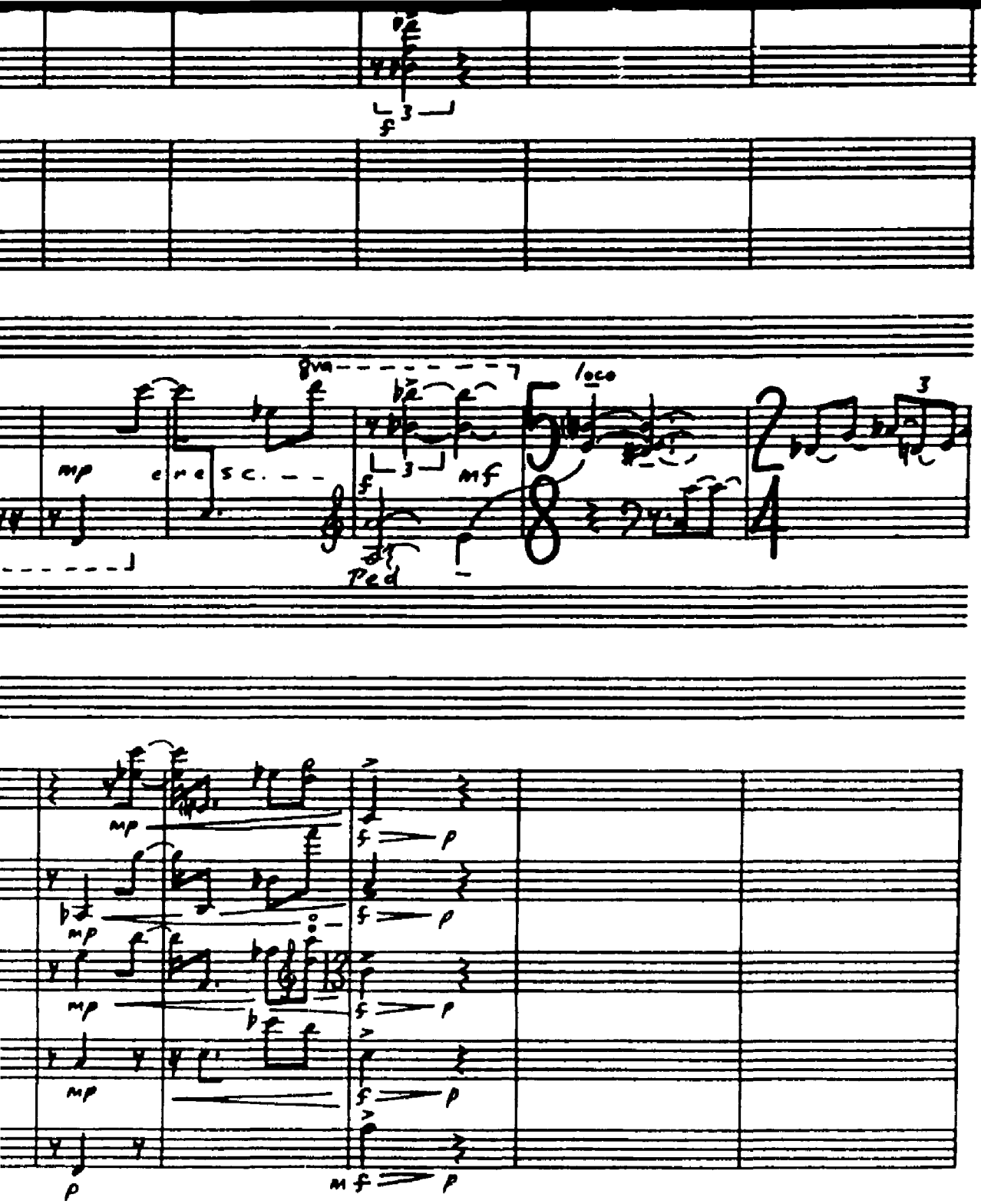

Hrp.
mp
Pno
cresc poco a poco
f
I
Vln
II
Vla.
Vlc
DB.
SOLO
pp cresc


with nails
near soundboard
B♭
mf
p
cresc.
cresc
poco a poco
mf
dim poco a poco

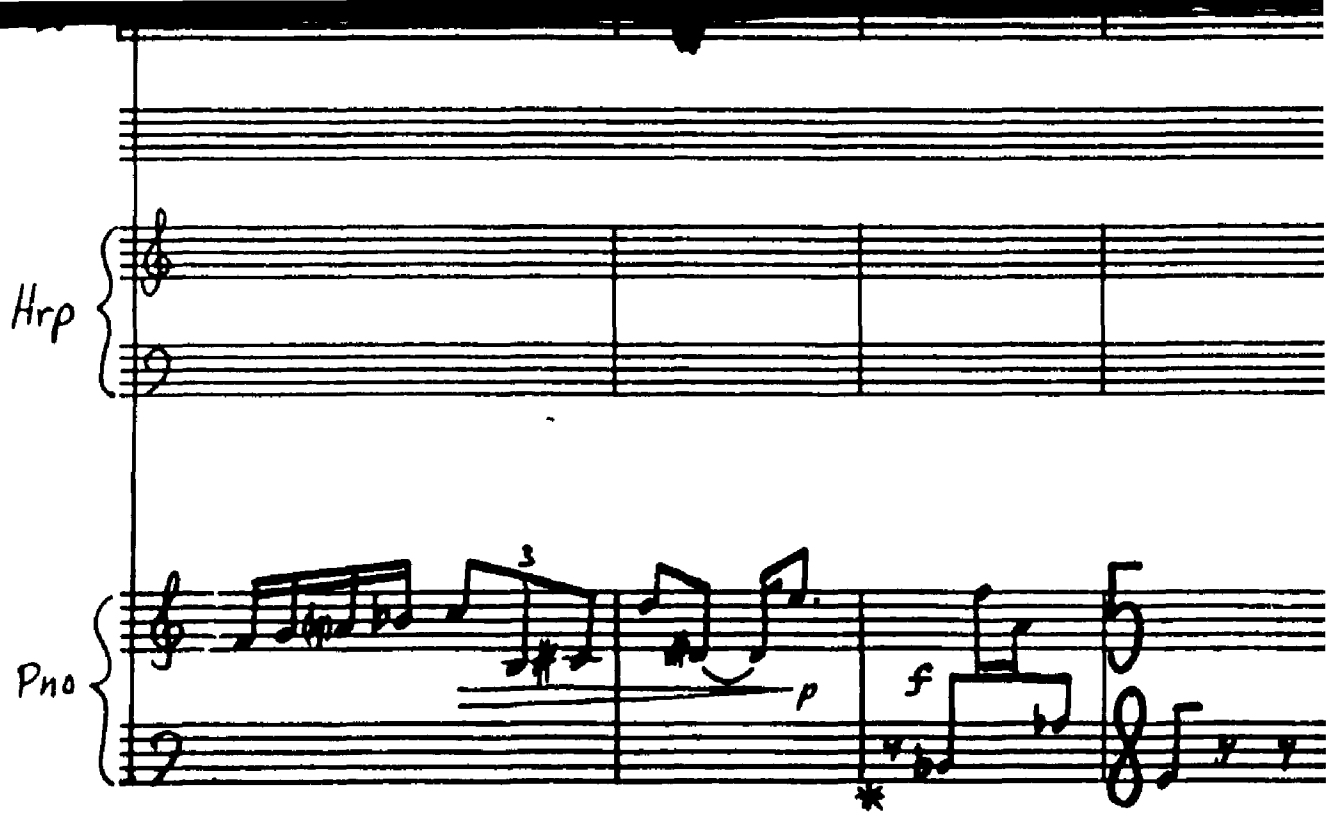

IV
Hrp
F#
Pno
p
(secco)
(cresc poco a poco)
ff
Ped
*
8va
I
Vln
II
Vla
ppp
Vlc.
DB

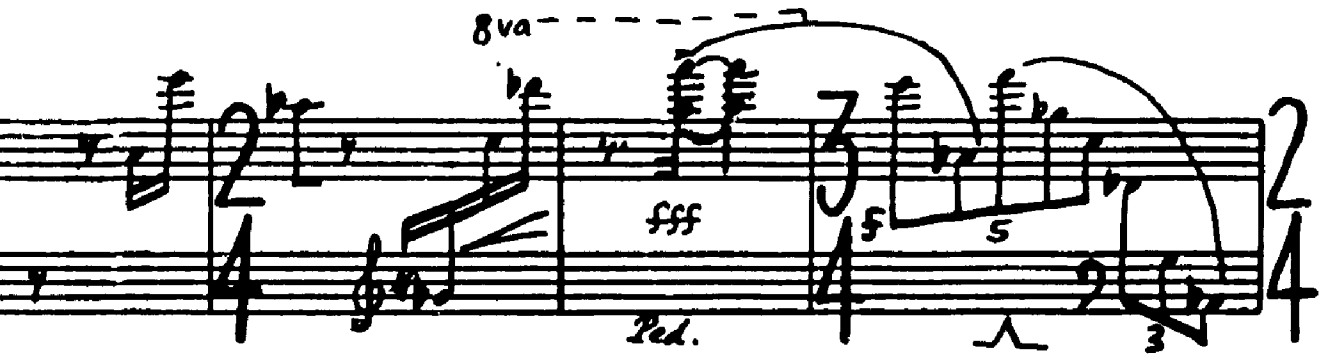

I
8va
p
mp
ff
mp
Ped.
*
Ped
*
p

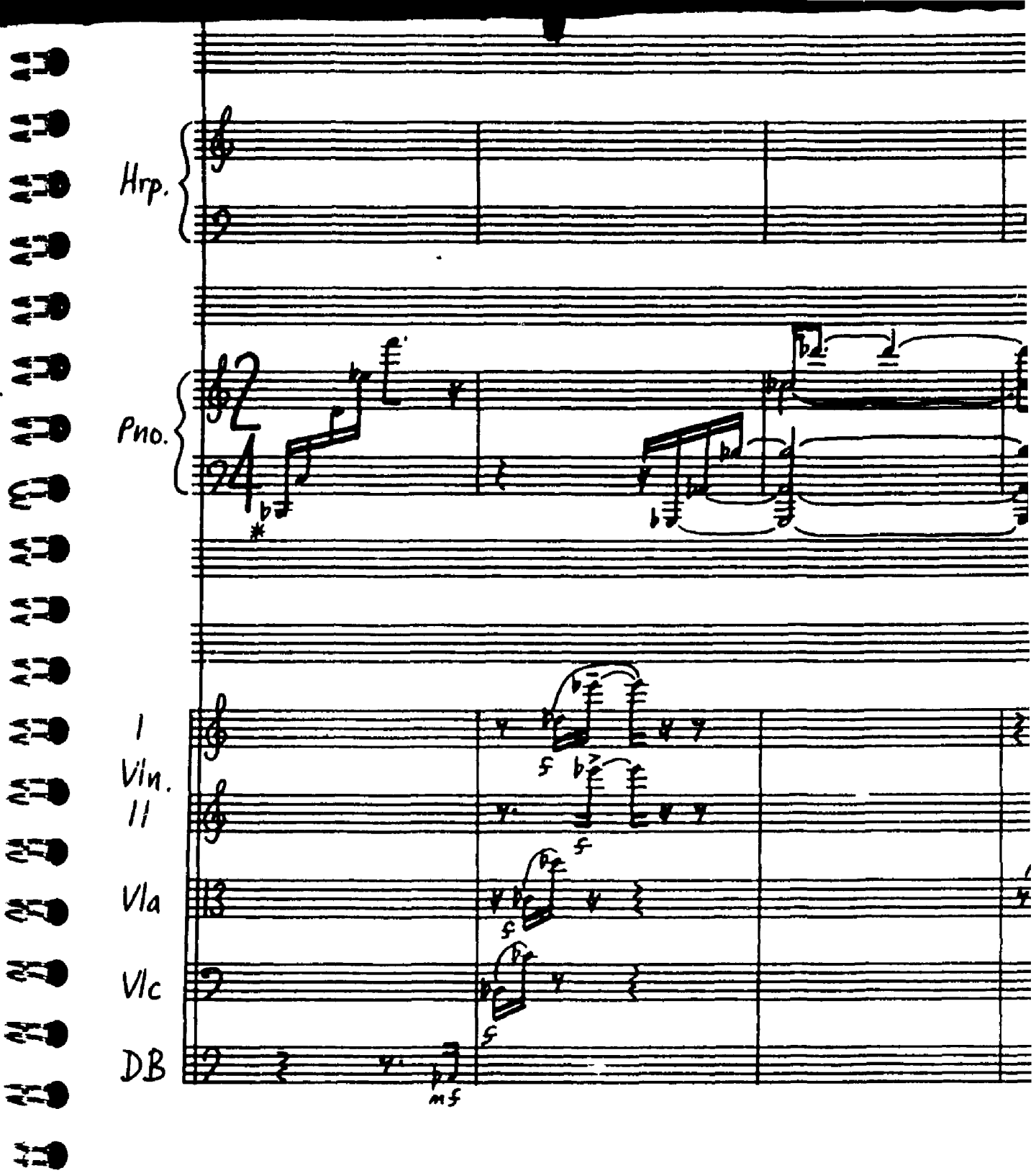

V
mf
marimba
Hrp.
ff
3
D♭ C♭ F♭
pno
ff
ff
8va
I
Vln
II
Vla
mp < f
Vlc
f
DB.

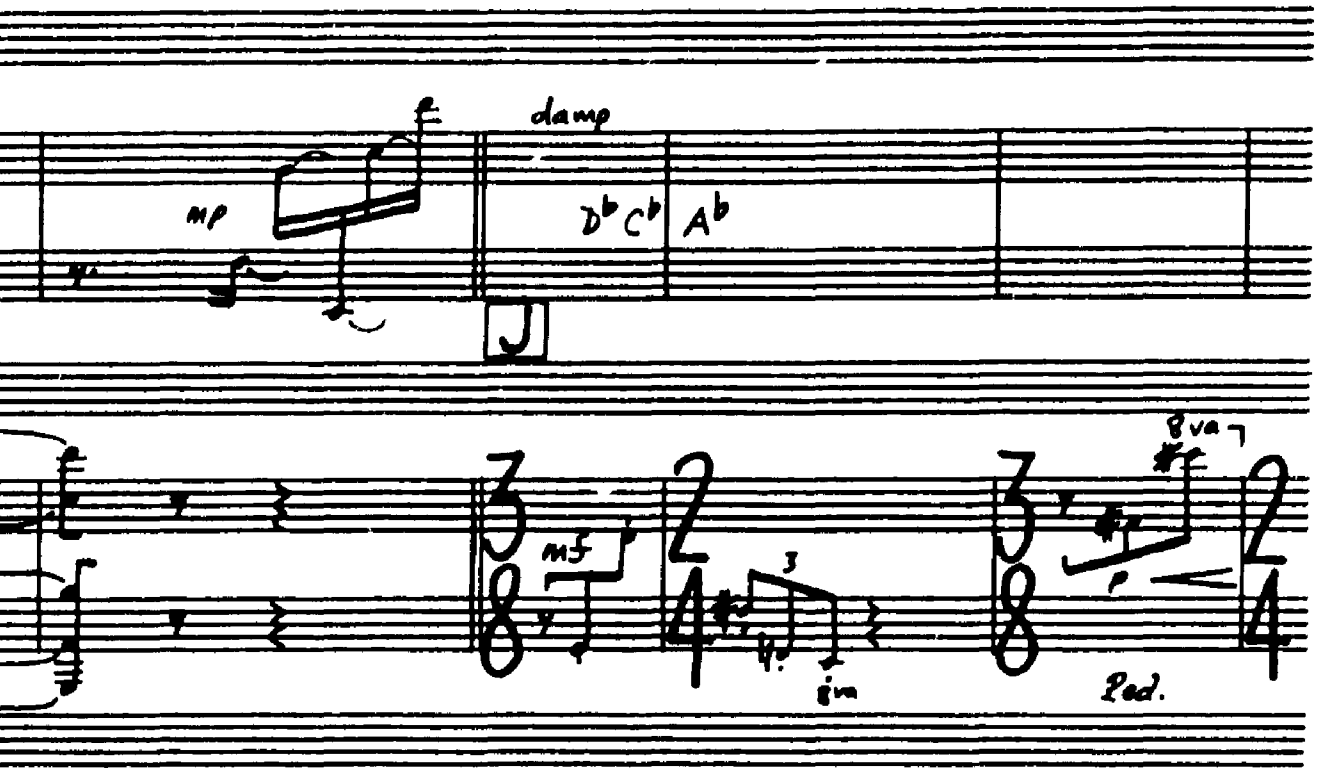


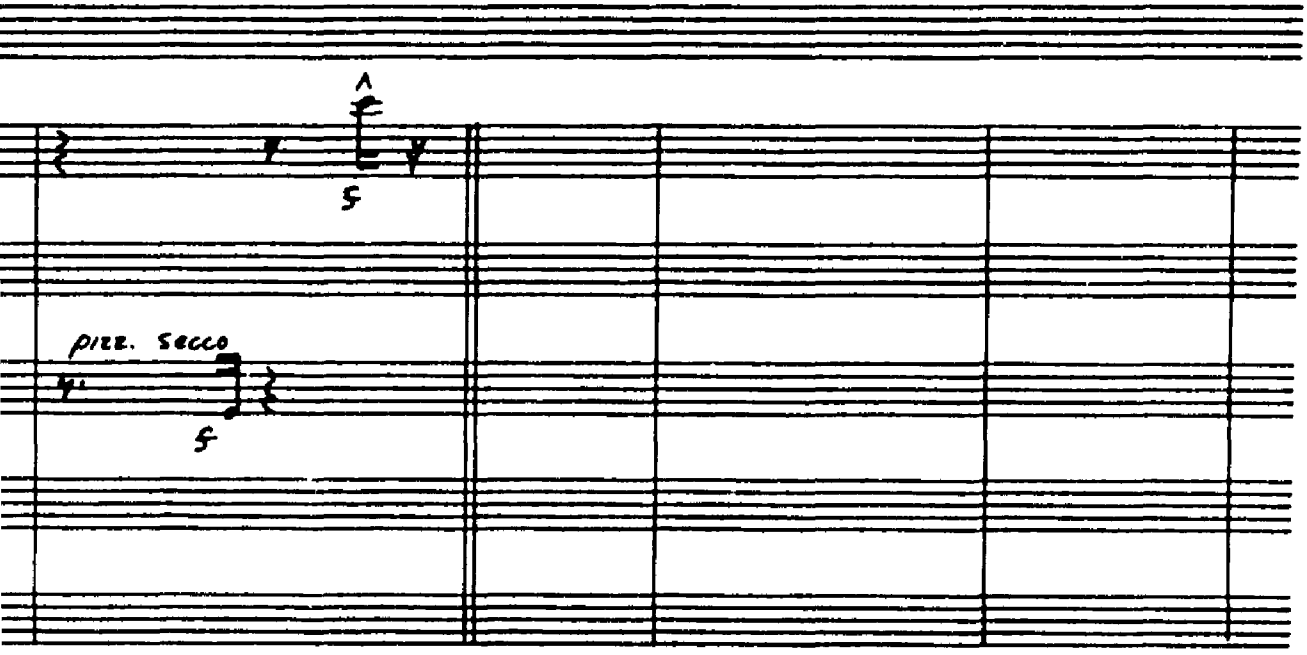
f
8va
loco
mp
cresc.
mf
Ped
mp
f
p
mf

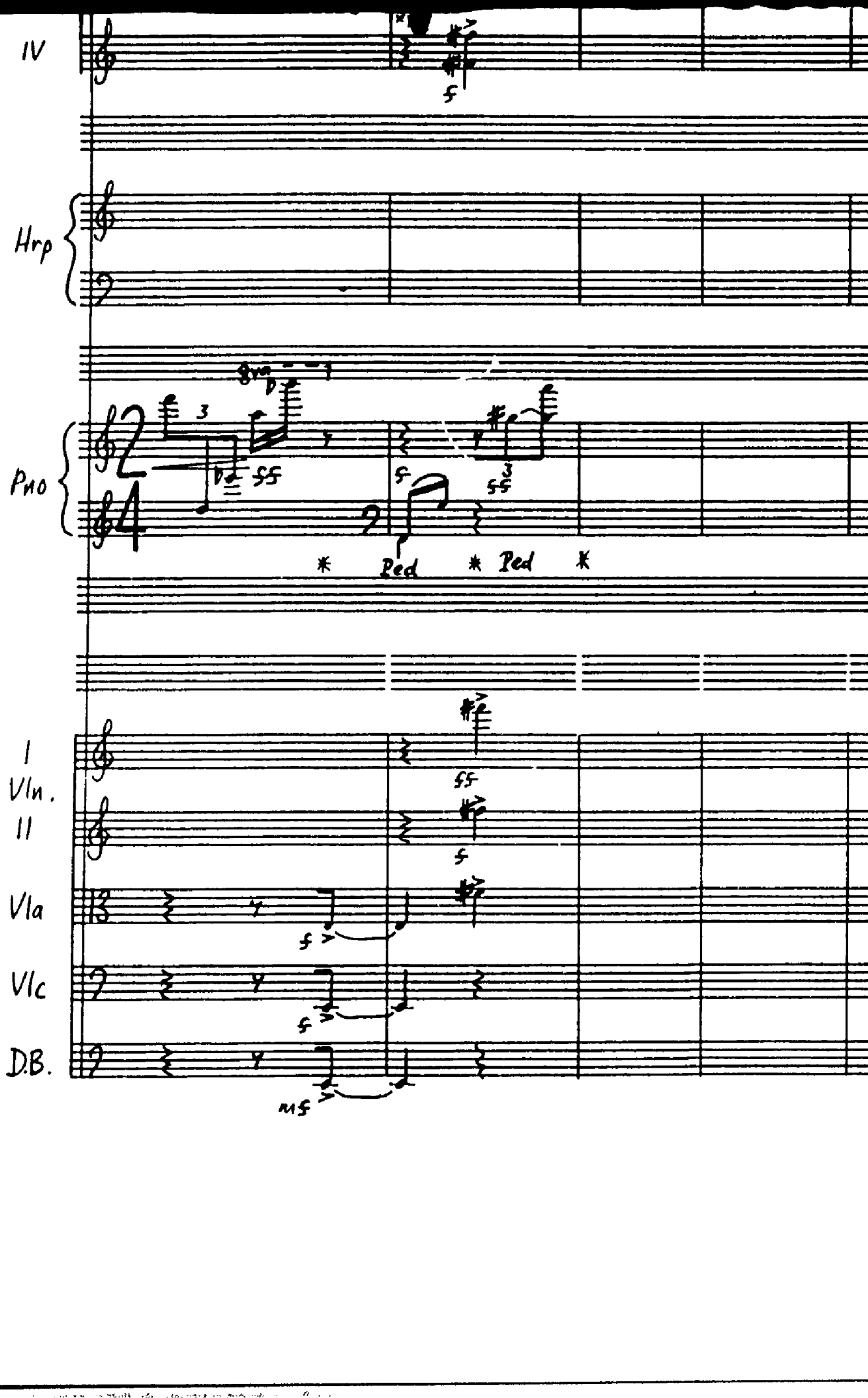

Hrp
Pno
3
p
f
*

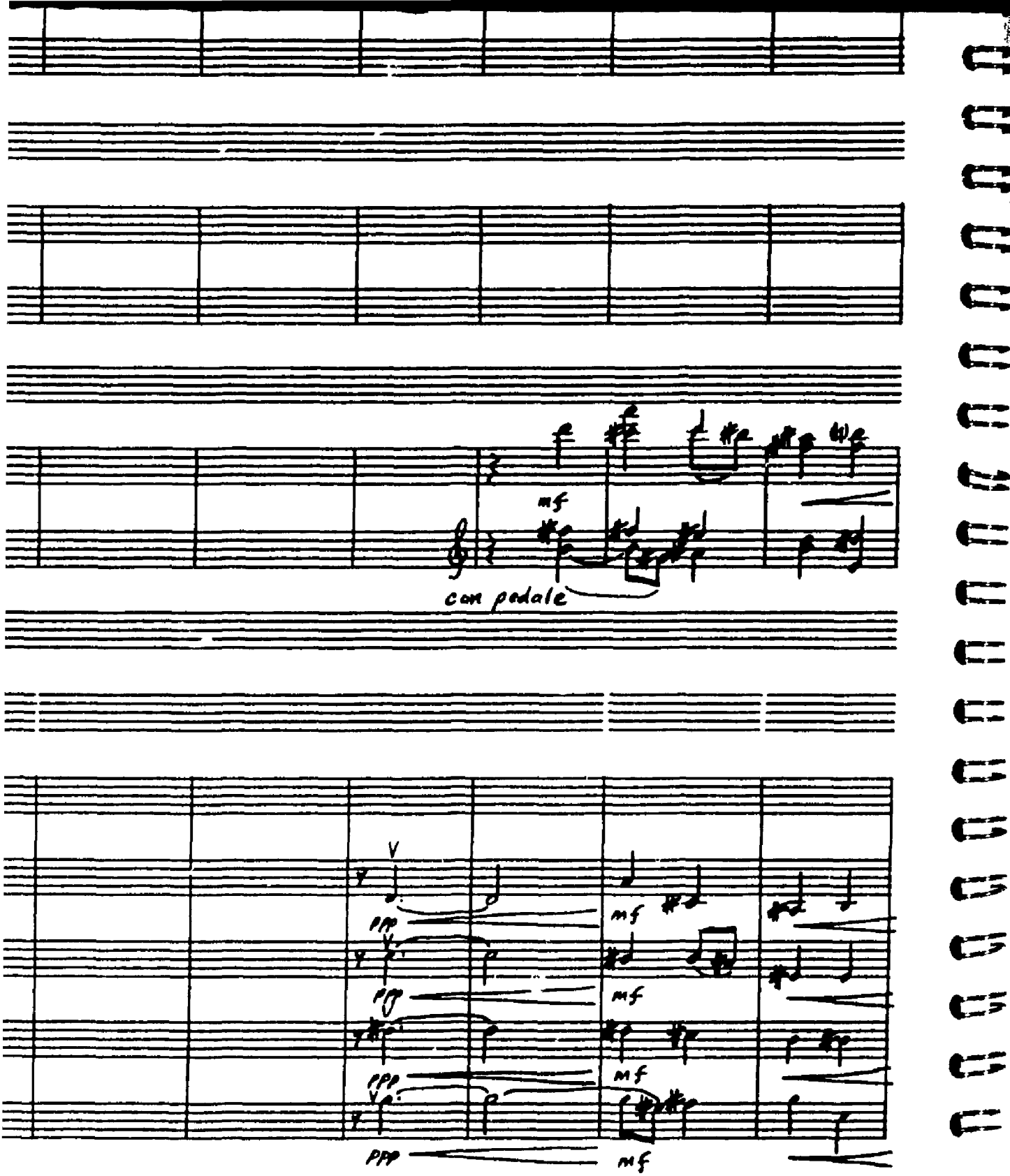

8va
fff
Ped.

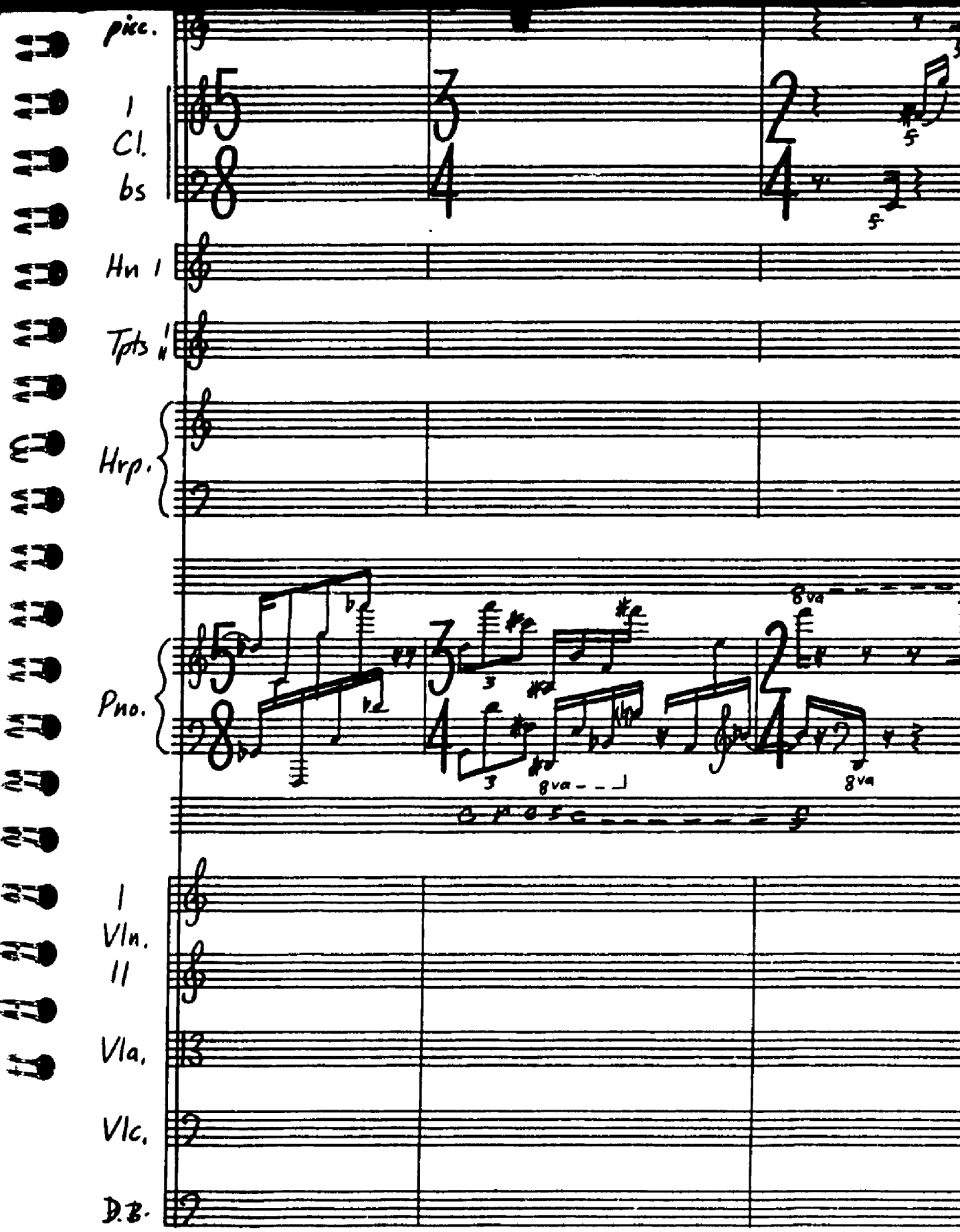

Hrp.
Pno.
I
Vln.
II
Vla
Vlc
DB
mf

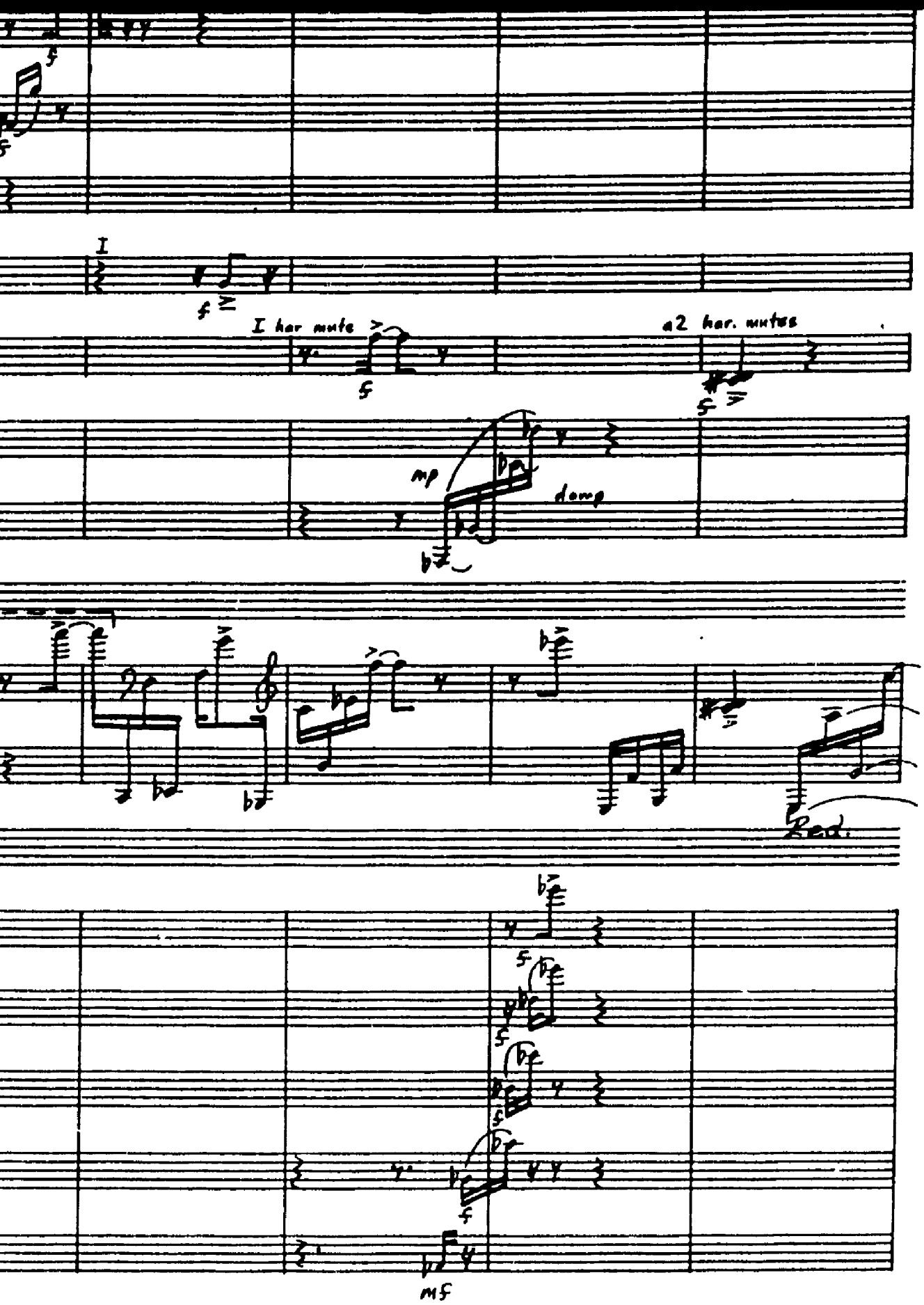

damp
mp
D^b C^b A^b
mf
8va
Ped.

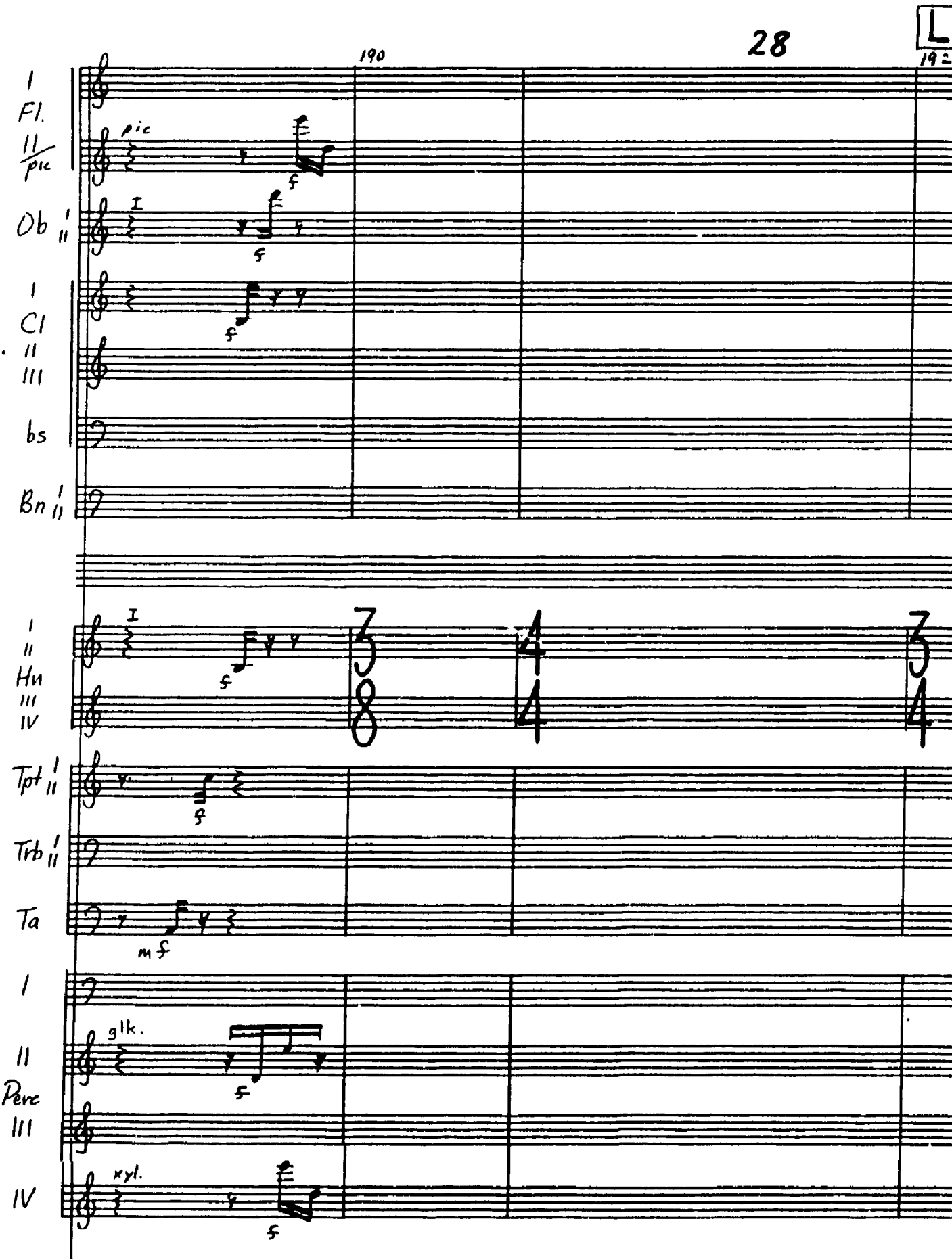

f
pizz. secco
f

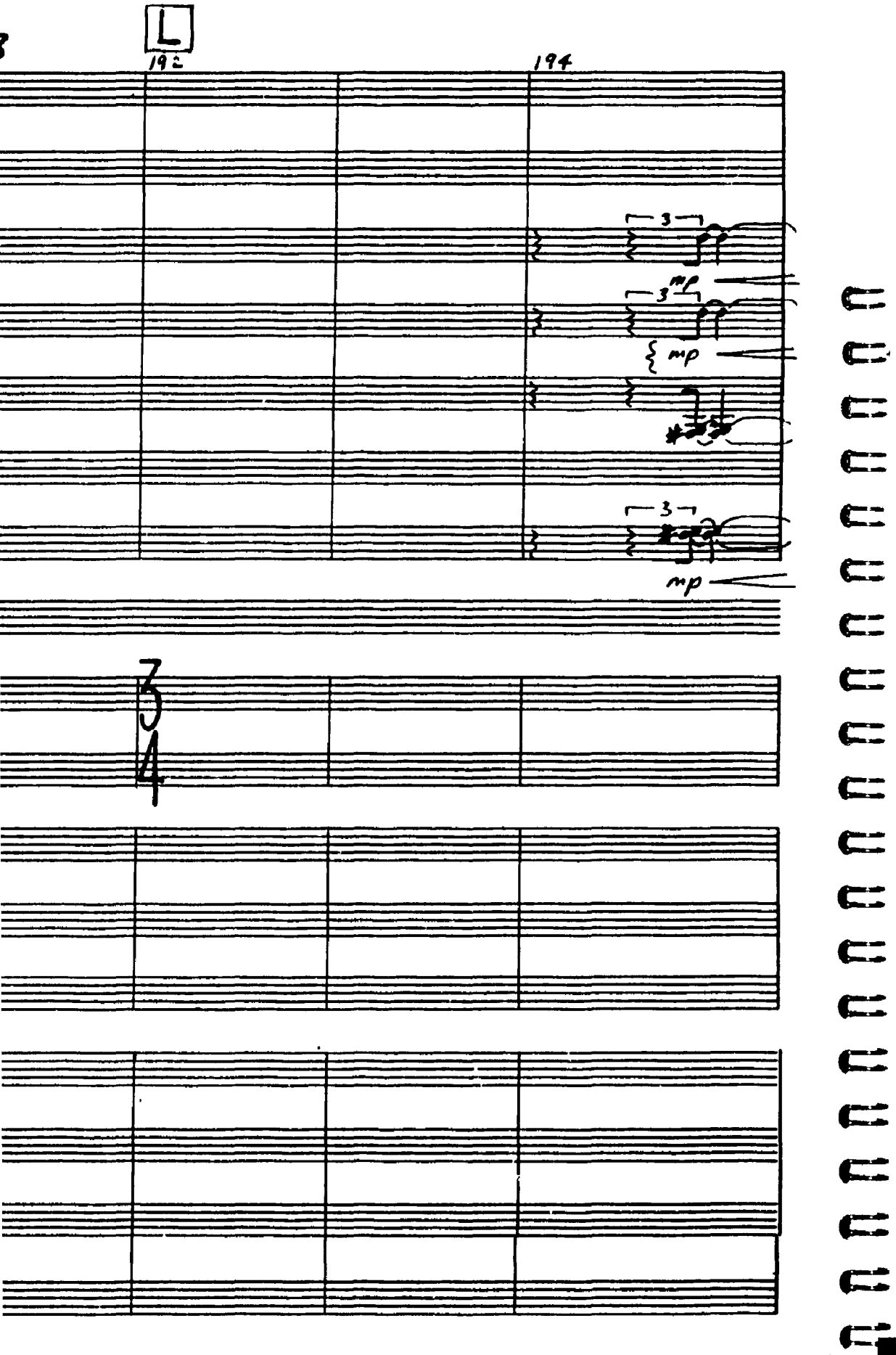

IV
Hrp
Pno
Ped
Ped
I
Vln.
II
Vla
Vlc
D.B.

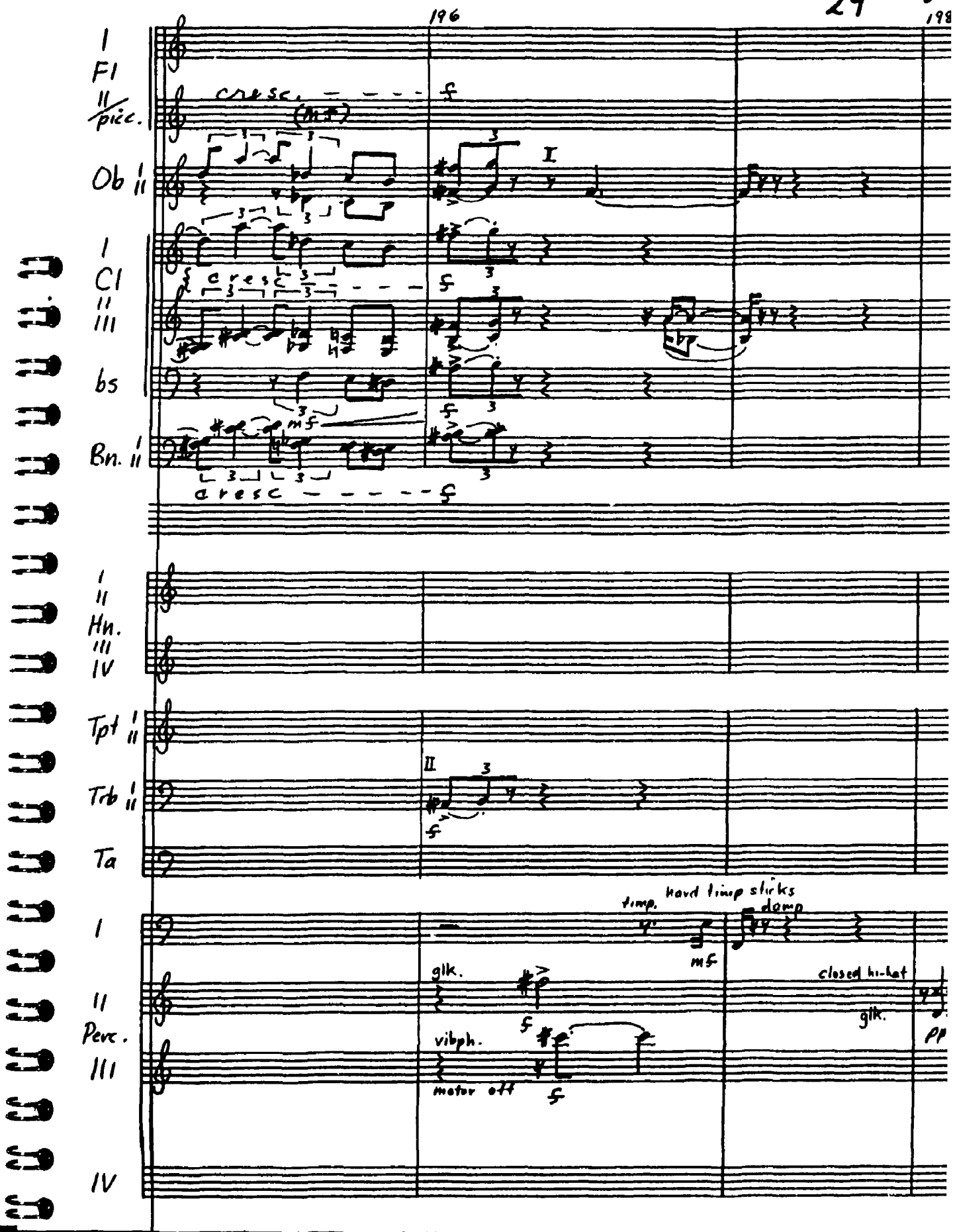

mf
con pedale
V
ppp
mf
ppp
mf
ppp
mf
ppp
mf


pic.
I
Cl.
bs
Hn I
Tpts II
Hrp.
Pno.
8va
8va
8va
I
Vln.
II
Vla.
Vlc.
D.B.


I
I har mute
a2 har. mutes
mp
damp
Ped.
mf

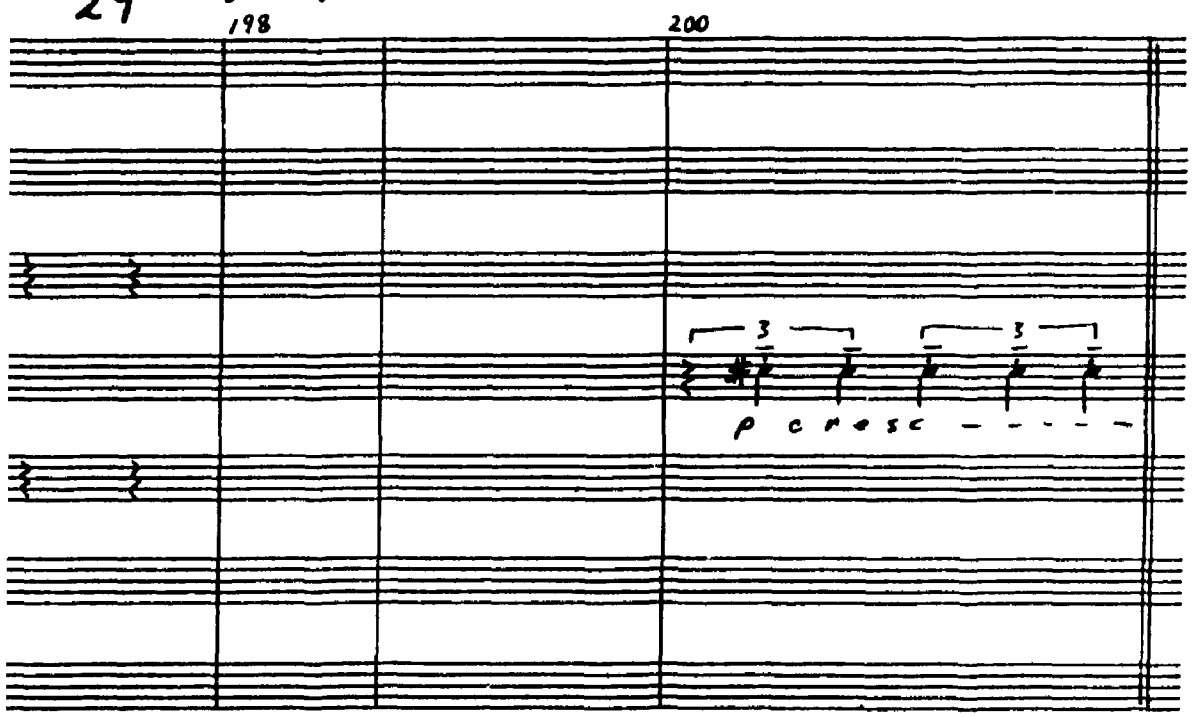

190
L
I
Fl.
II
pic
pic
Ob
I
II
Cl
I
II
III
bs
Bn
I
II
Hn
I
II
III
IV
Tpt
I
II
Trb
I
II
Ta
I
II
Perc
glk.
III
xyl.
IV
f
mf

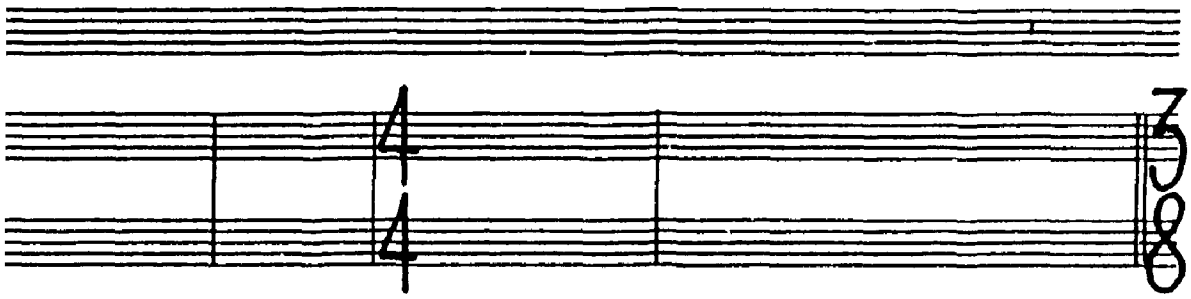

L
192
194
3
3
mp
mp
3
mp
3/4

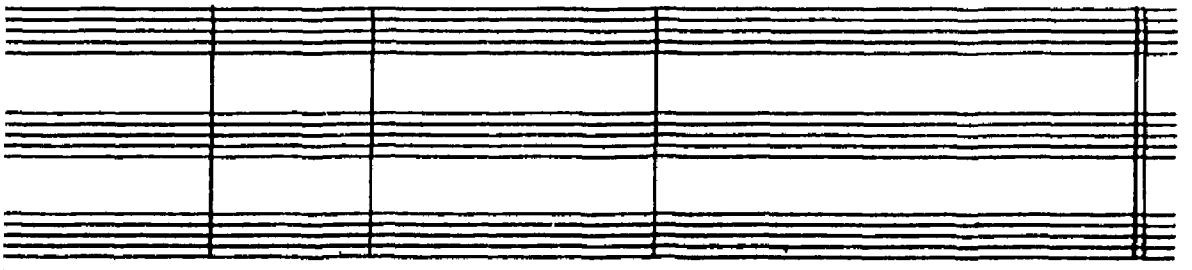

196
198
I
Fl
II
picc.
cresc.
(mf)
f
Ob I
II
I
Cl
II
III
cresc
bs
mf
Bn. I
II
cresc
I
II
Hn.
III
IV
Tpt I
II
Trb I
II
Ta
I
timp.
hard timp sticks
damp
mf
II
Perc.
III
glk.
closed hi-hat
glk.
vibph.
motor off
IV

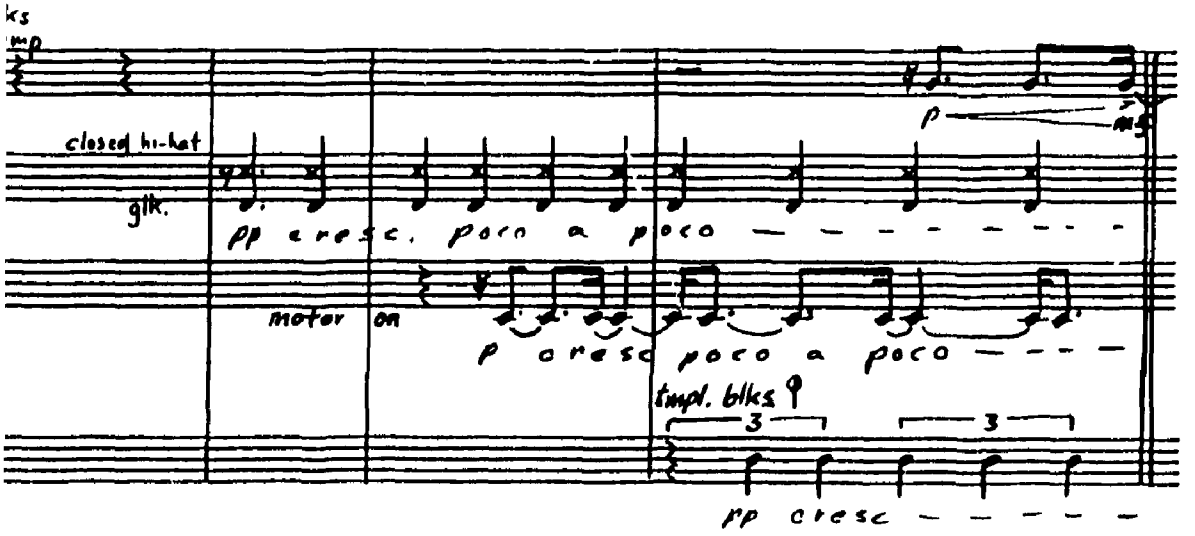
29 ♩ ca 100

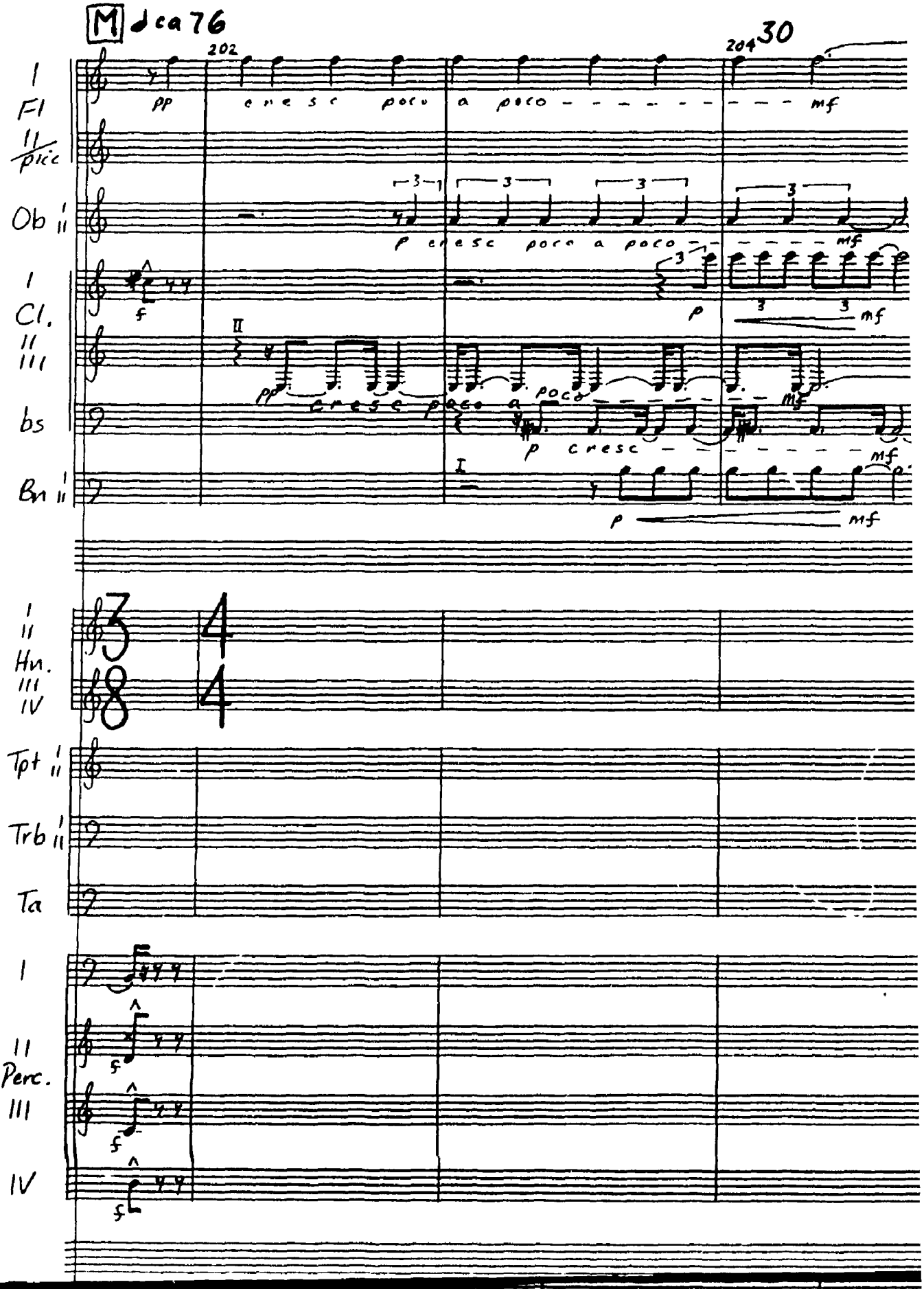
198 200

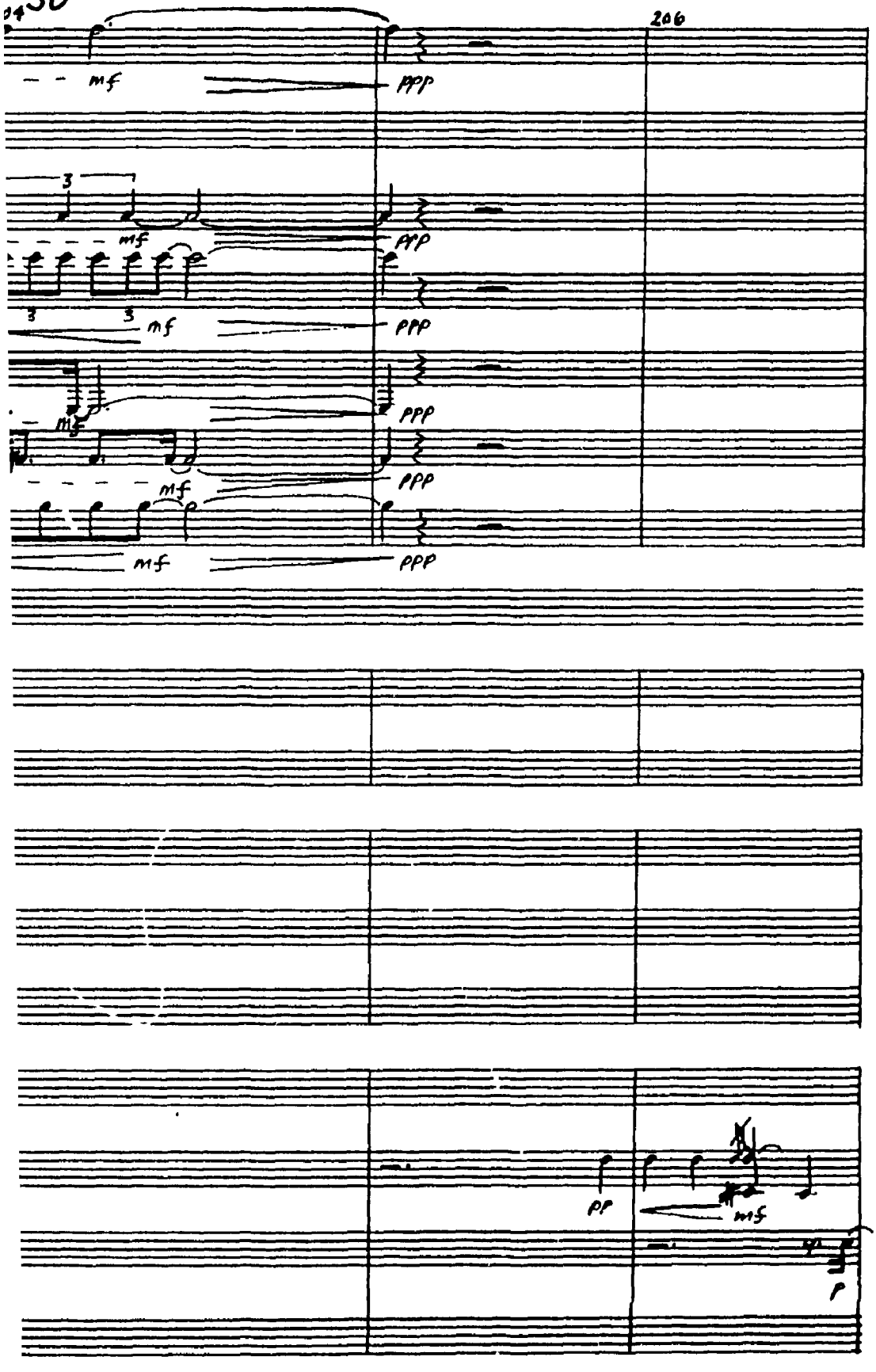


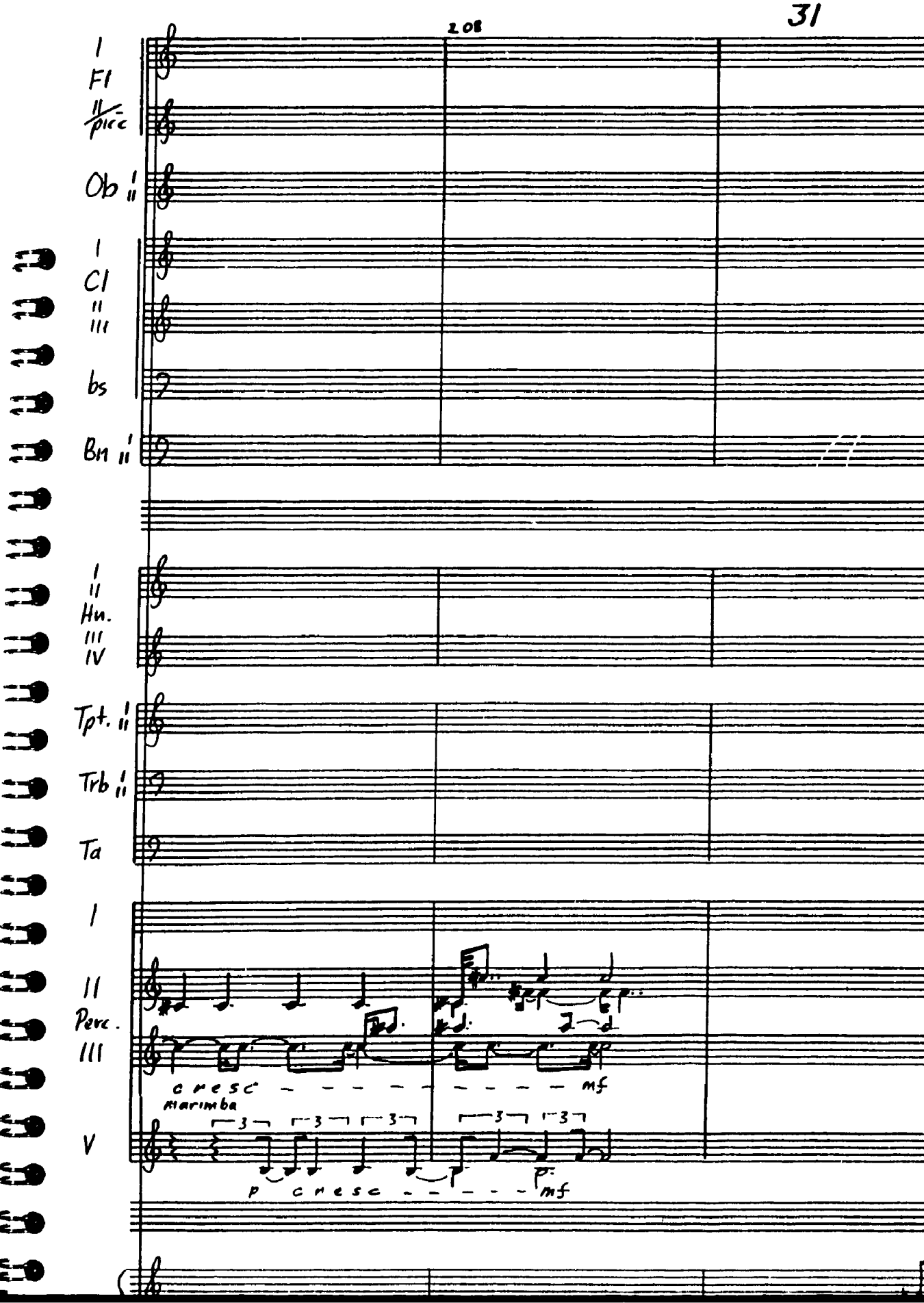






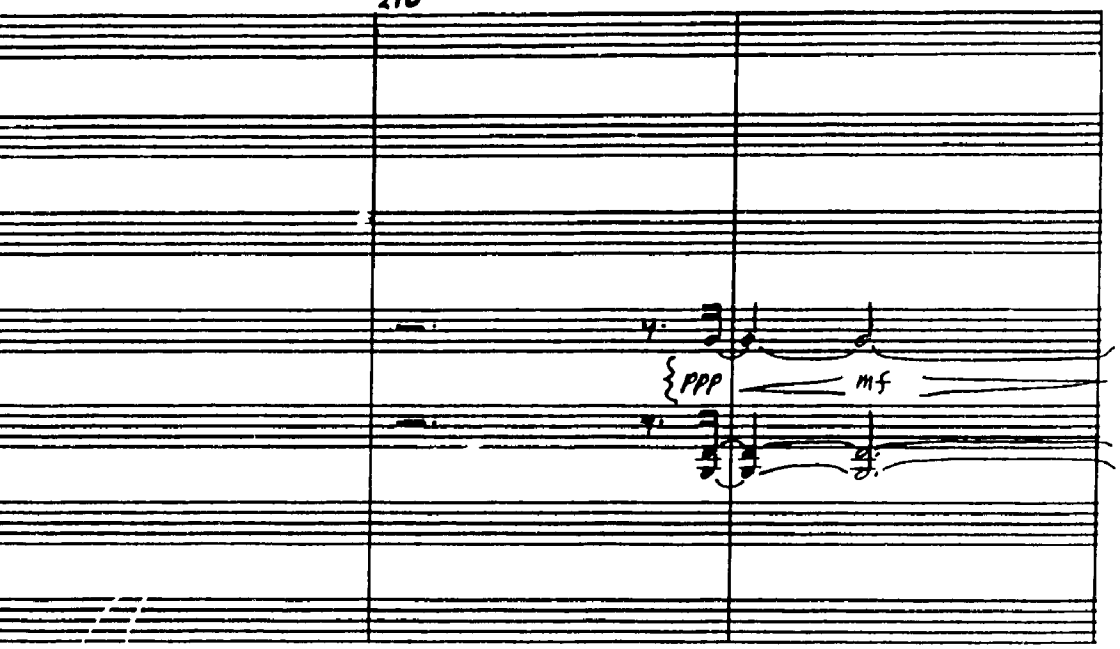

M ♩ca 76
202
204
30
I
Fl
II
picc
Ob
I
II
Cl.
I
II
III
bs
Bn
I
II
pp
cresc poco a poco
mf
f
p
Hn.
I
II
III
IV
Tpt
I
II
Trb
I
II
Ta
Perc.
I
II
III
IV
sf


206
mf
ppp
3
mf
ppp
3
3
mf
ppp
mf
ppp
mf
ppp
mf
ppp
pp
mf
p

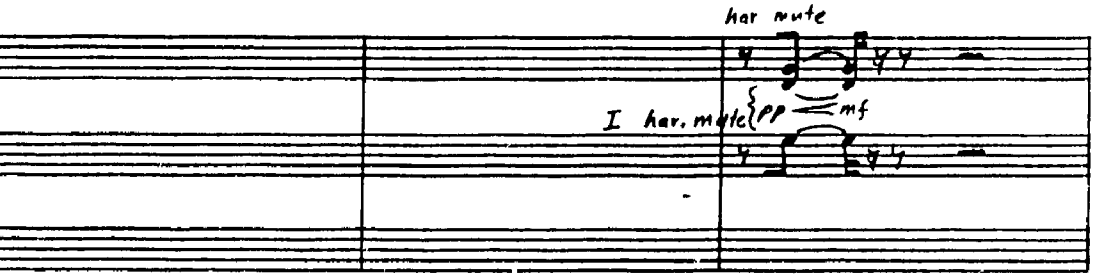

208
I
Fl
II
picc
Ob I
II
I
Cl
II
III
bs
Bn I
II
I
II
Hn.
III
IV
Tpt. I
II
Trb I
II
Ta
I
II
Perc.
III
cresc
mf
marimba
V
p
cresc
mf

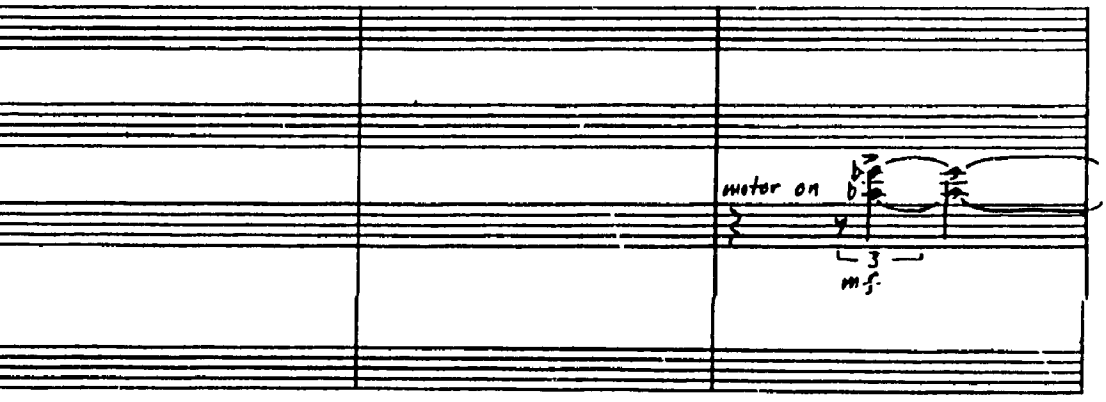
31

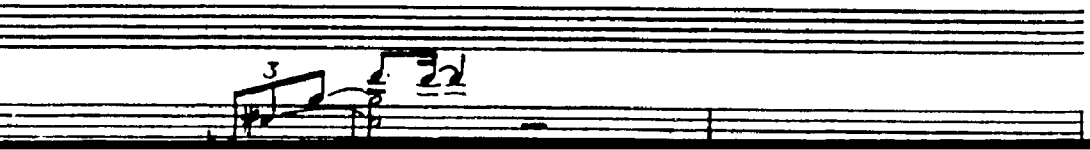
210

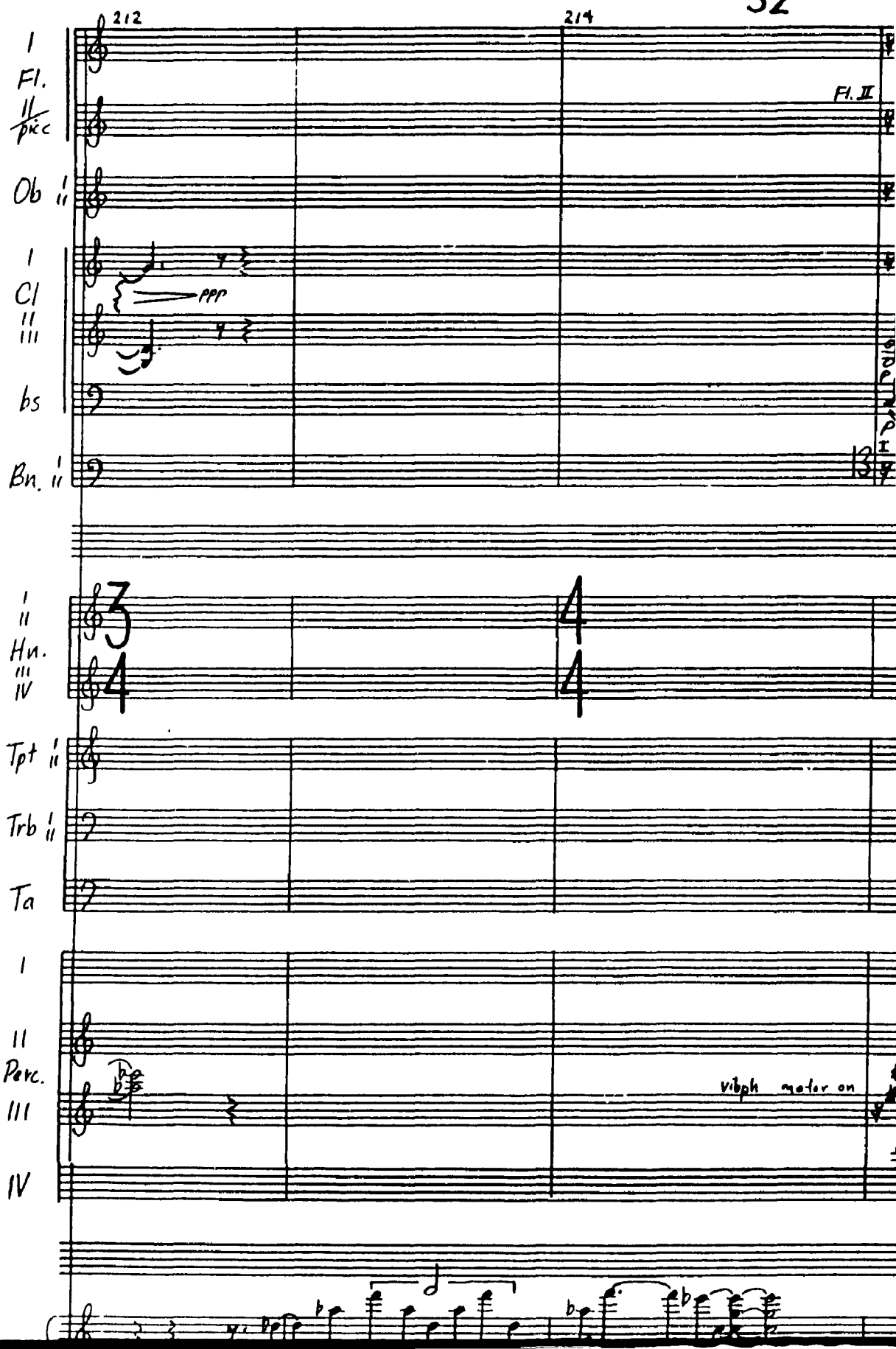


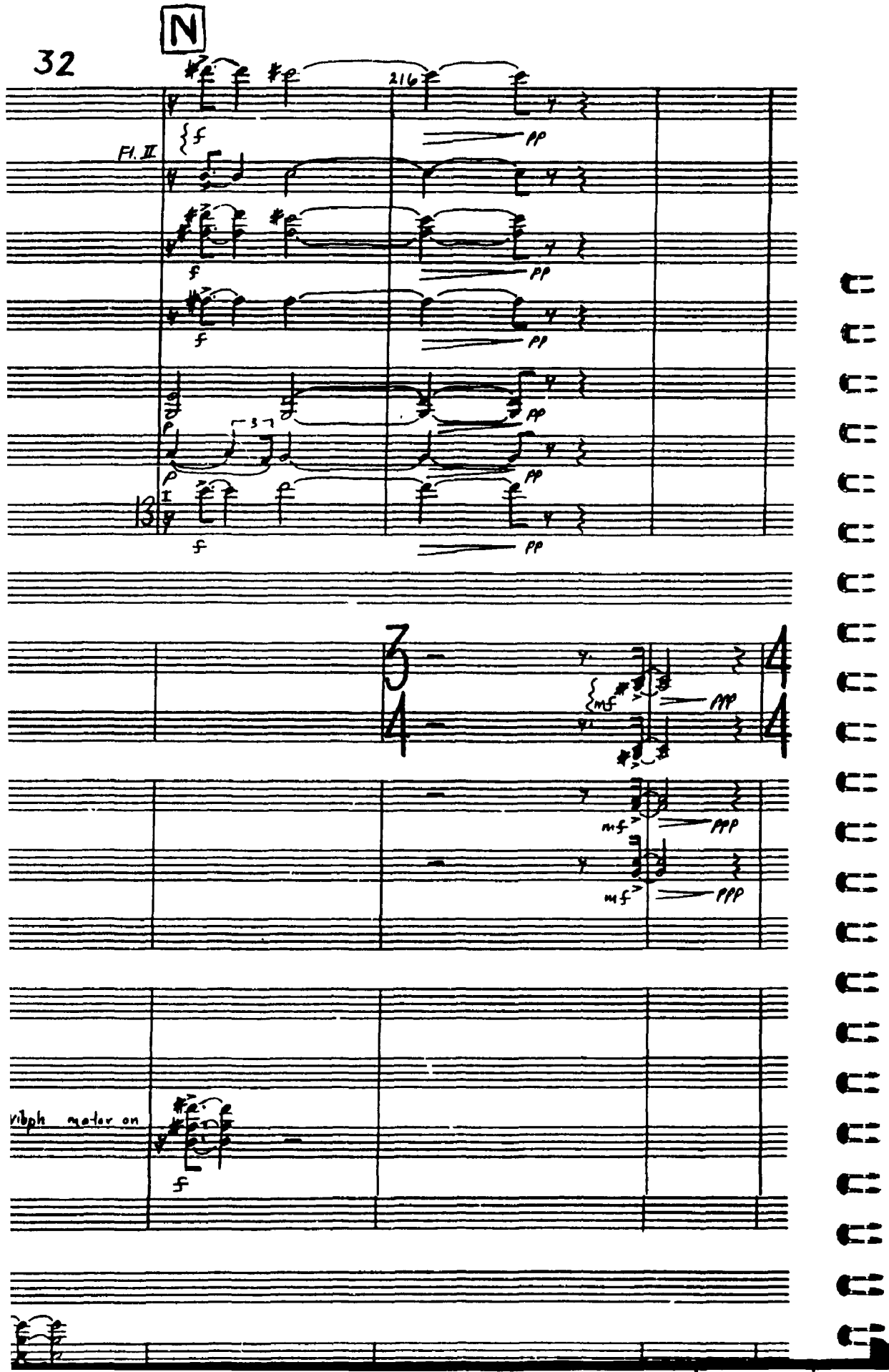
3
4

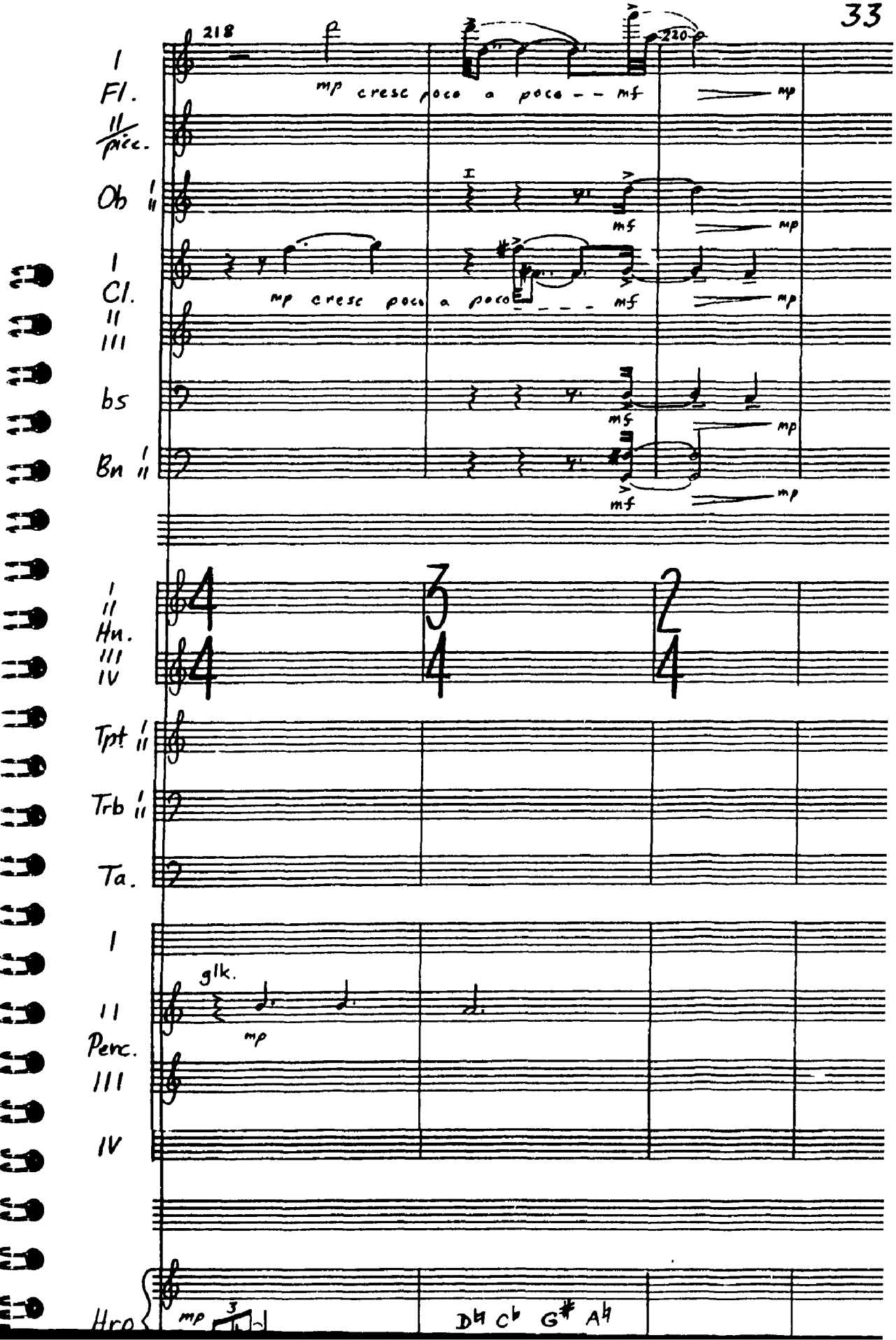


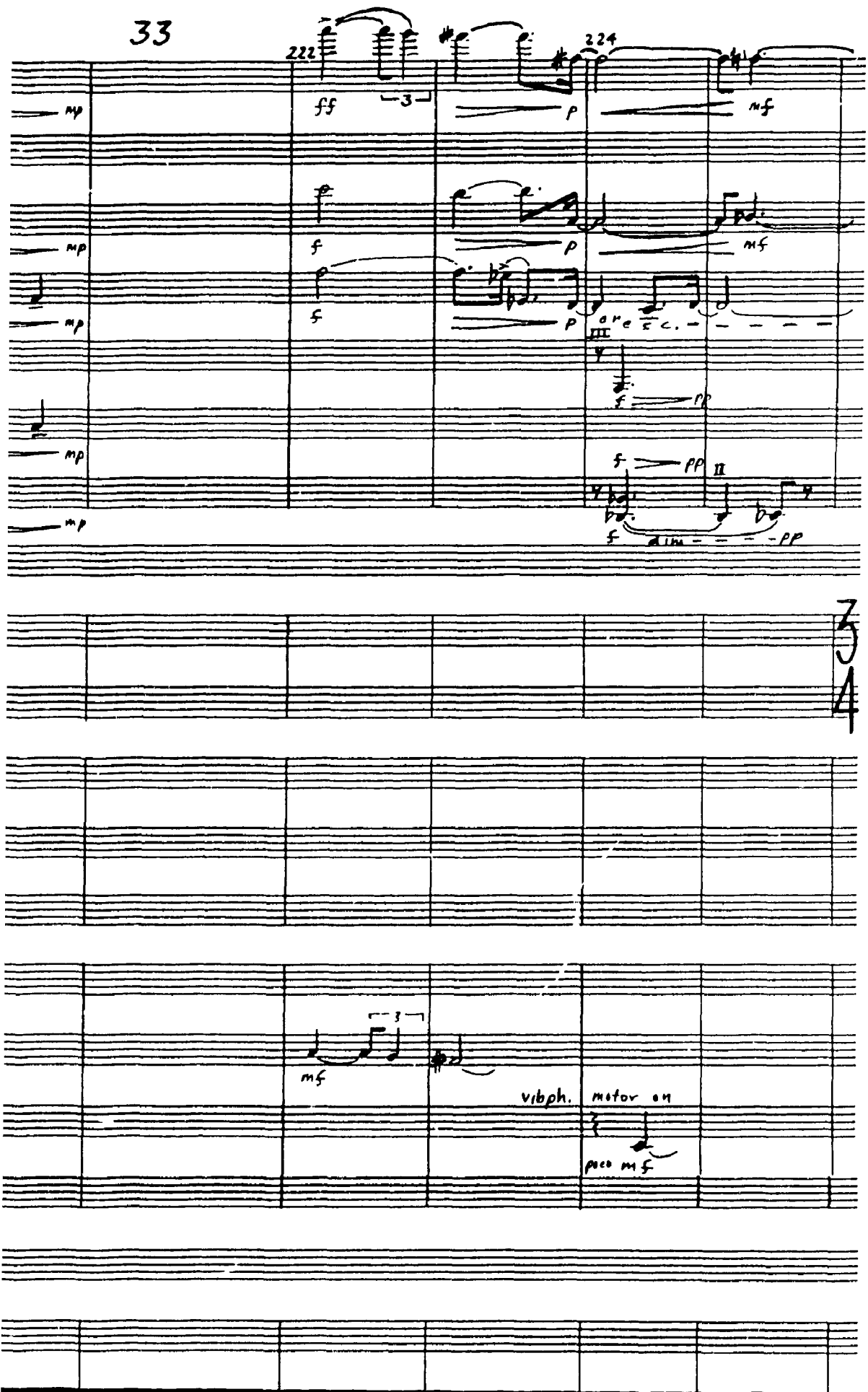


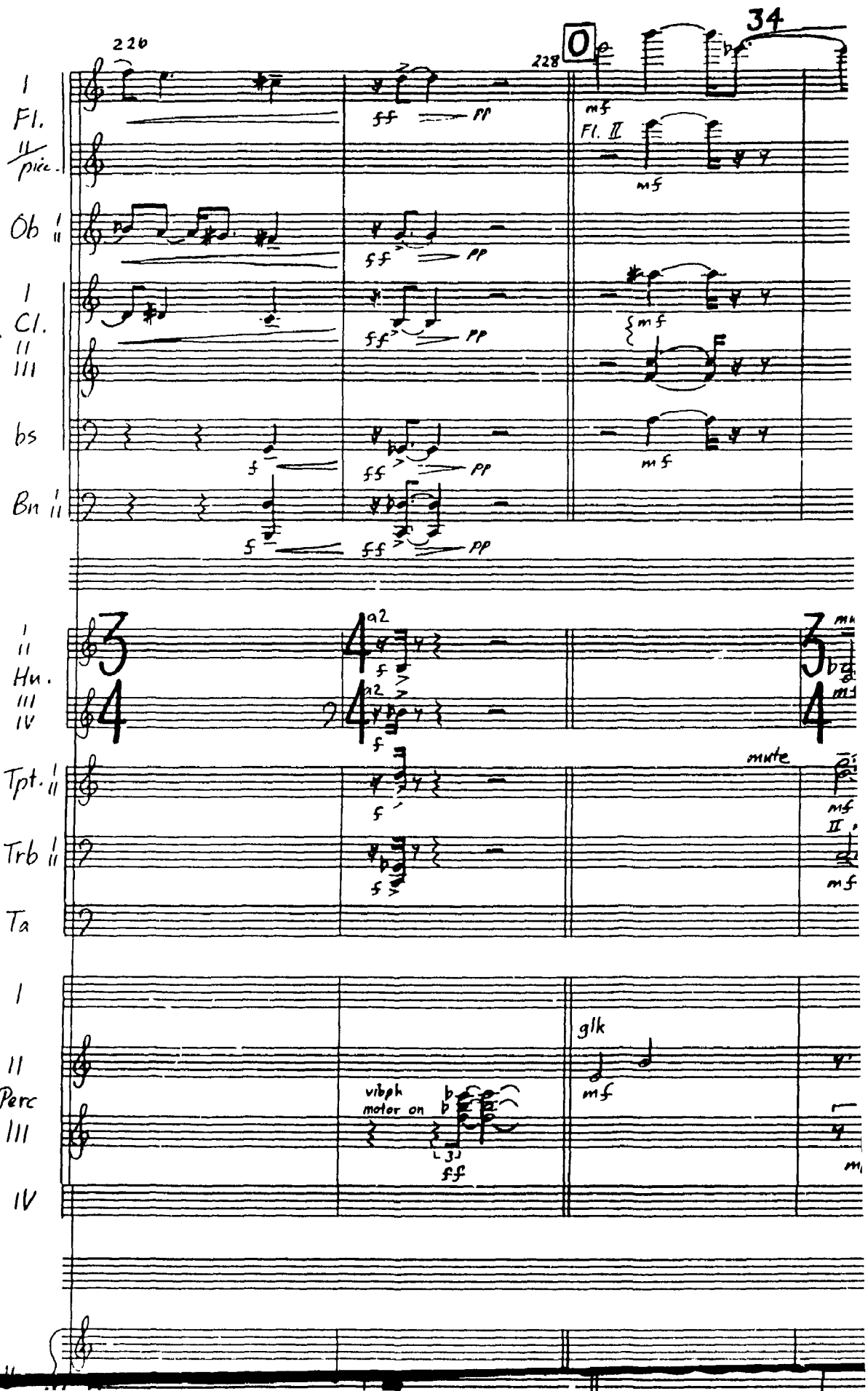


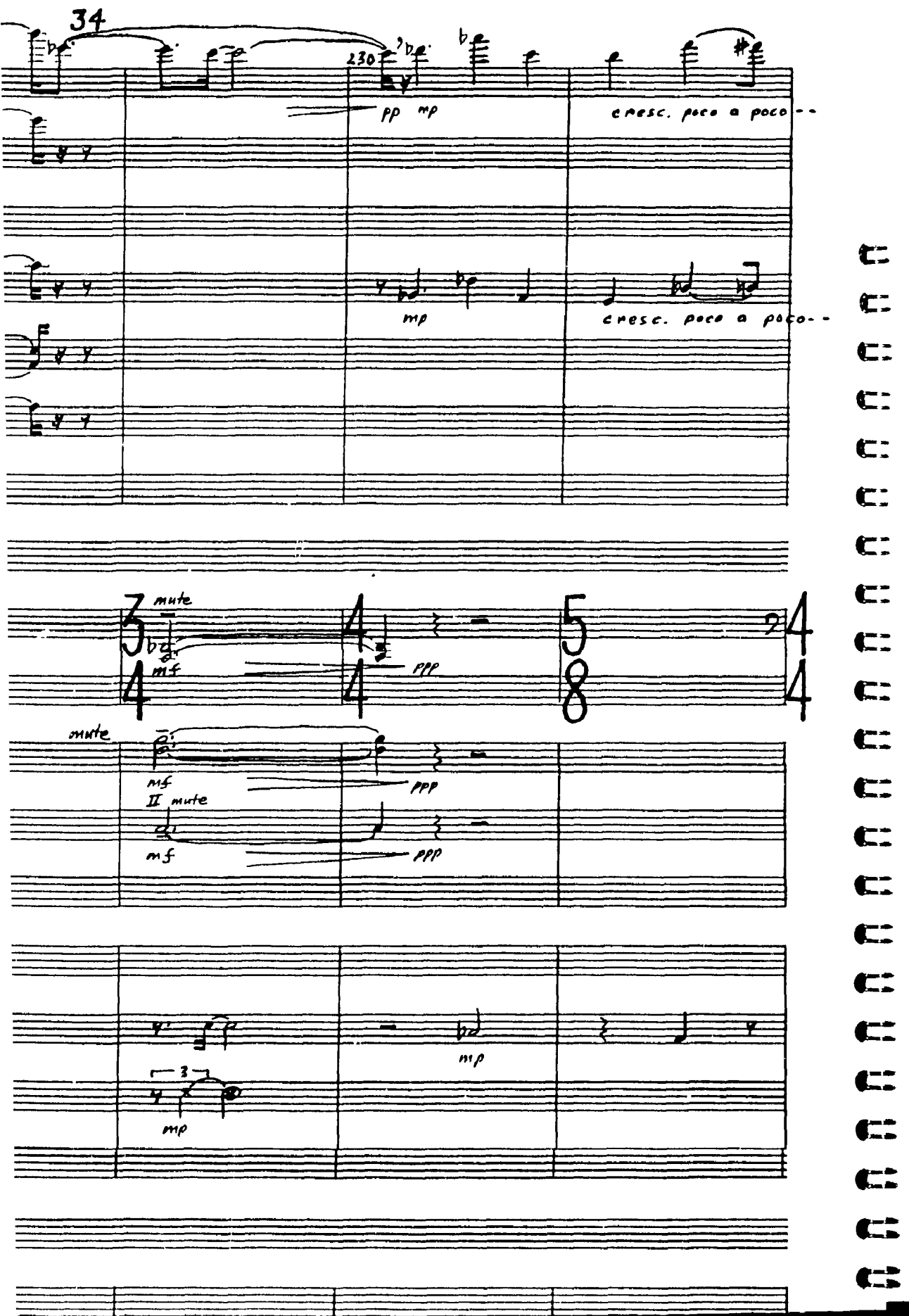

212
214
I
Fl.
II
pic
Fl. II
Ob
I
II
I
Cl
II
III
bs
Bn.
I
II
I
II
Hn.
III
IV
Tpt
I
II
Trb
I
II
Ta
I
II
Perc.
III
IV
vibph motor on

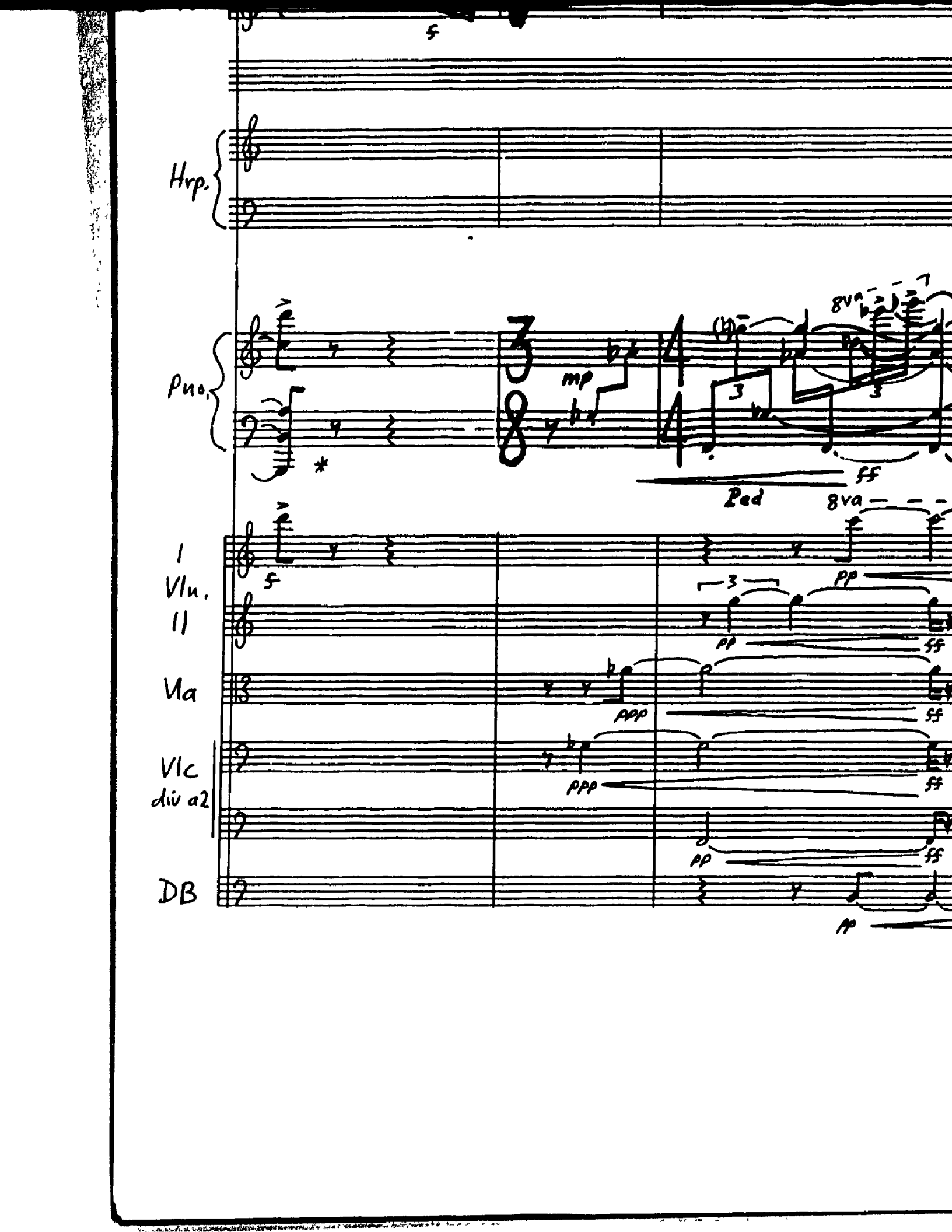

N
216
Fl. II
f
pp
p
mf
ppp
vibph motor on

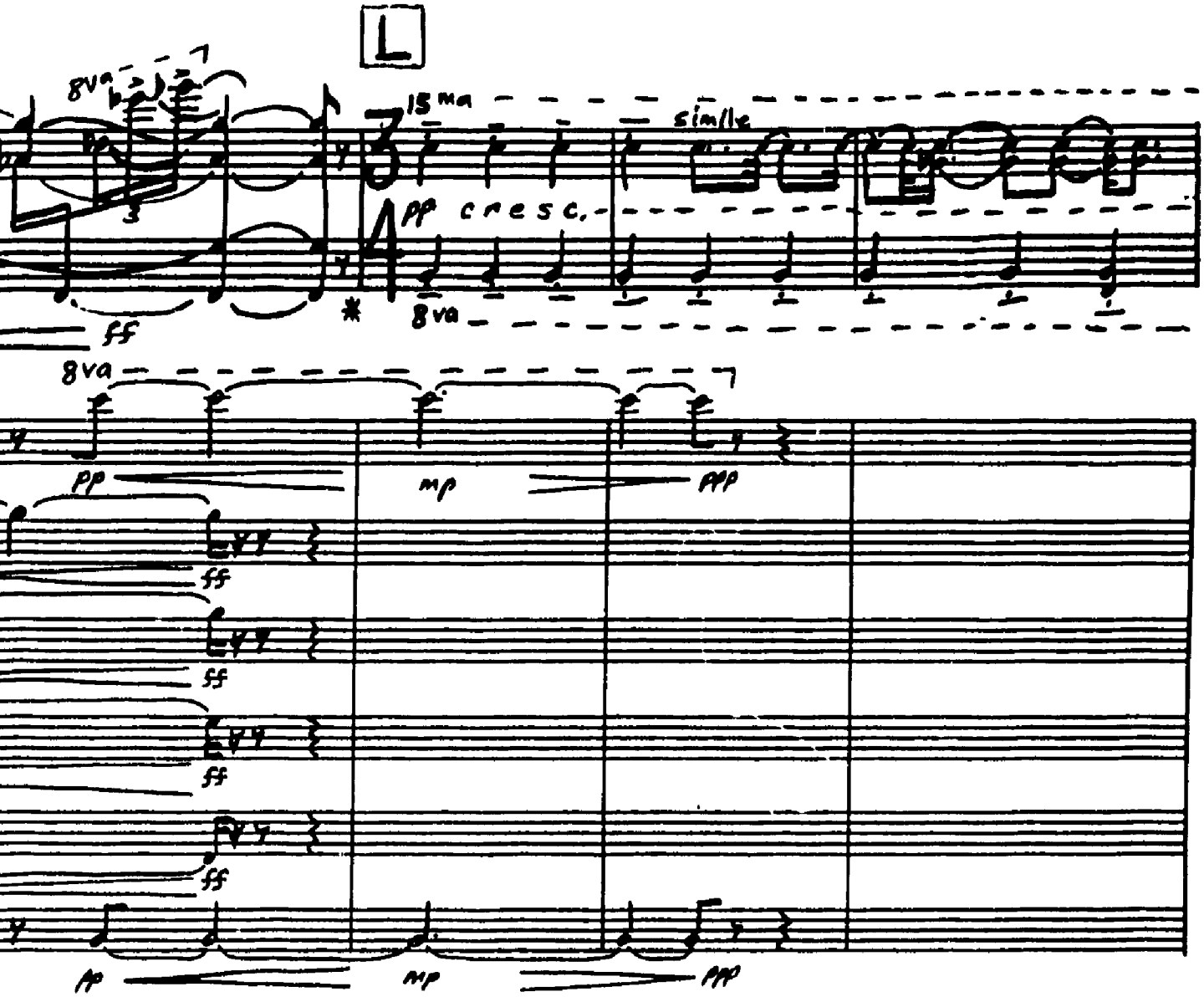

218
220
I
Fl.
II
picc.
Ob I II
I
Cl.
II
III
bs
Bn I II
mp cresc poco a poco - - mf
mp
mf
I
II
Hn.
III
IV
Tpt I II
Trb I II
Ta.
I
II
Perc.
III
IV
glk.
mp
Hrp
mp
D♮ C♭ G♯ A♮

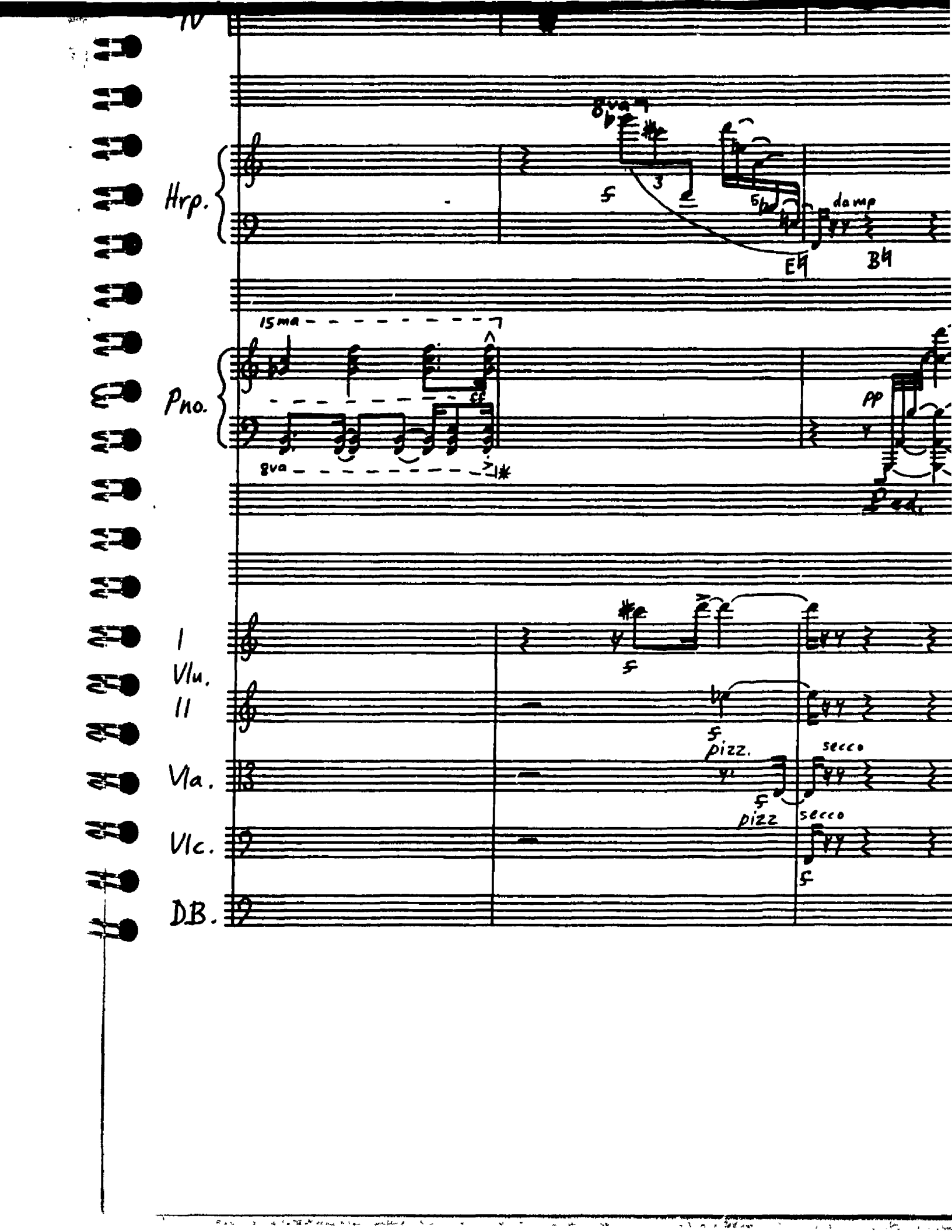

33
222
224
ff
3
p
mf
mp
f
p
mf
mp
f
p
cresc.
III
f
pp
mp
f
pp
II
mp
f
dim
pp
3
4
3
mf
vibph.
motor on
poco mf

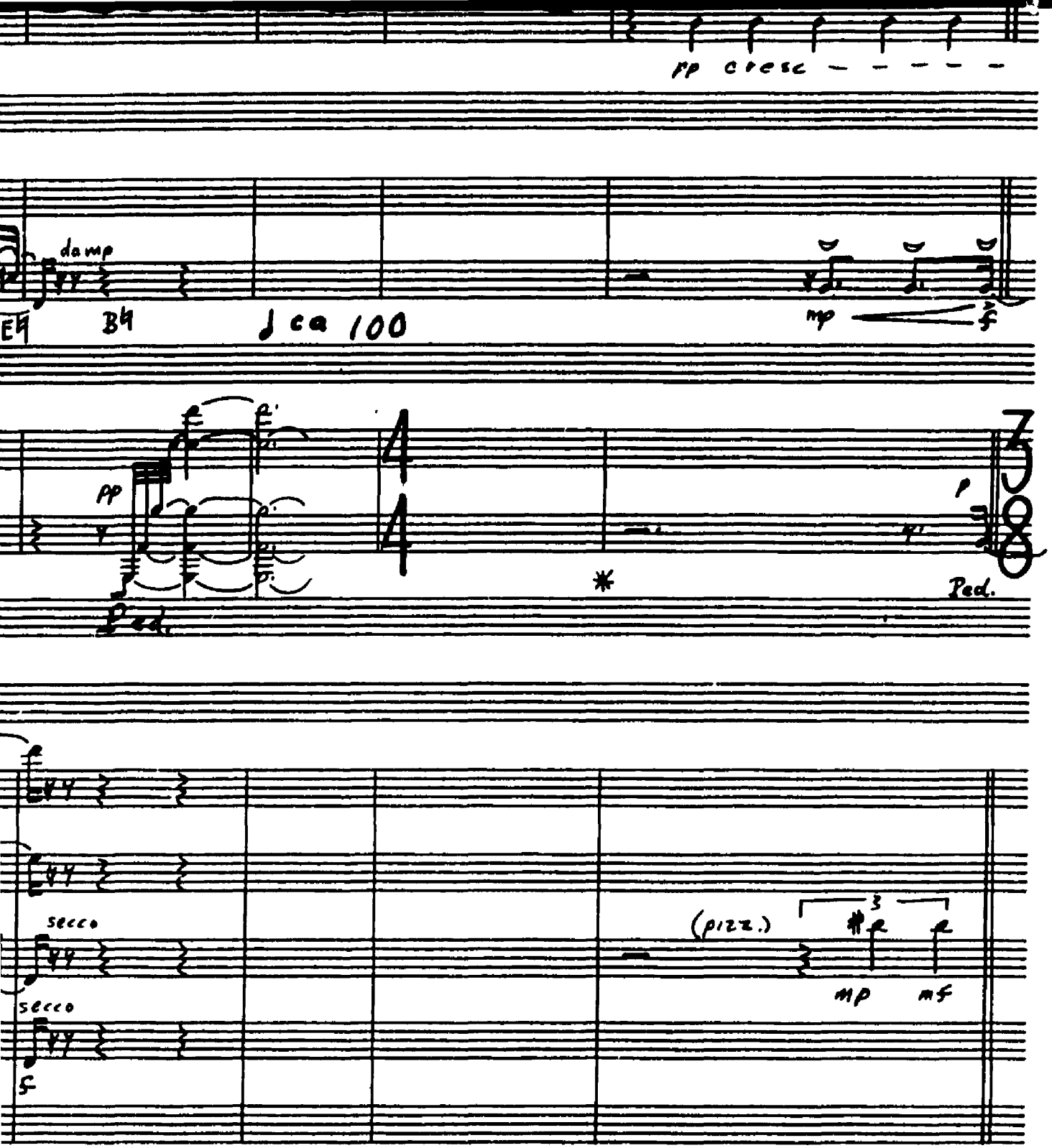

226
228
O
I
Fl.
II
picc.
Ob
I
II
Cl.
II
III
bs
Bn
I
II
Hn.
III
IV
Tpt.
I
II
Trb
I
II
Ta
I
II
Perc
III
IV
ff
pp
mf
Fl. II
f
a2
mute
glk
vibph
motor on
ff

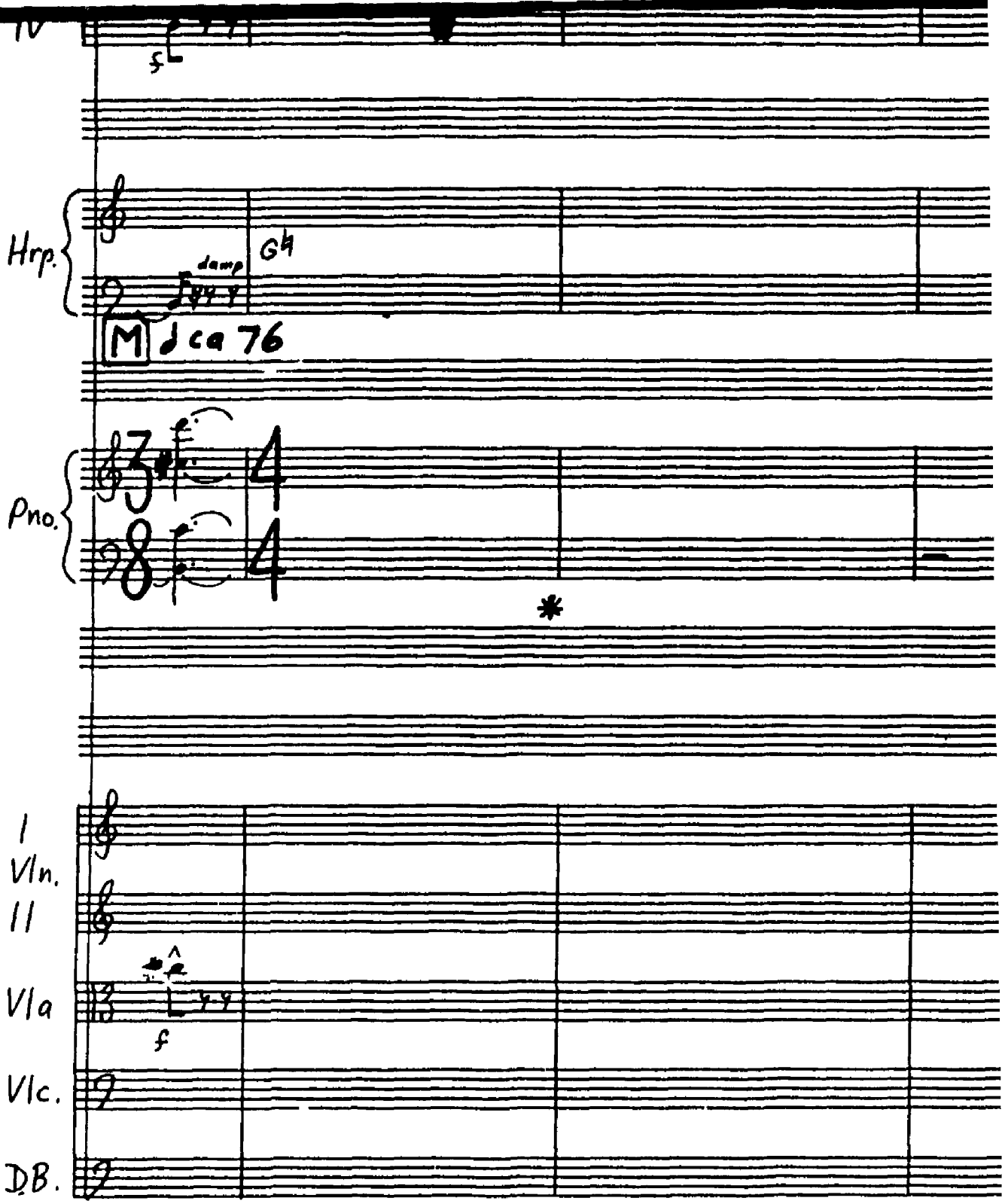

230
pp mp
cresc. poco a poco
mp
cresc. poco a poco
mute
mf
ppp
mute
mf
ppp
II mute
mf
ppp
mp
mp

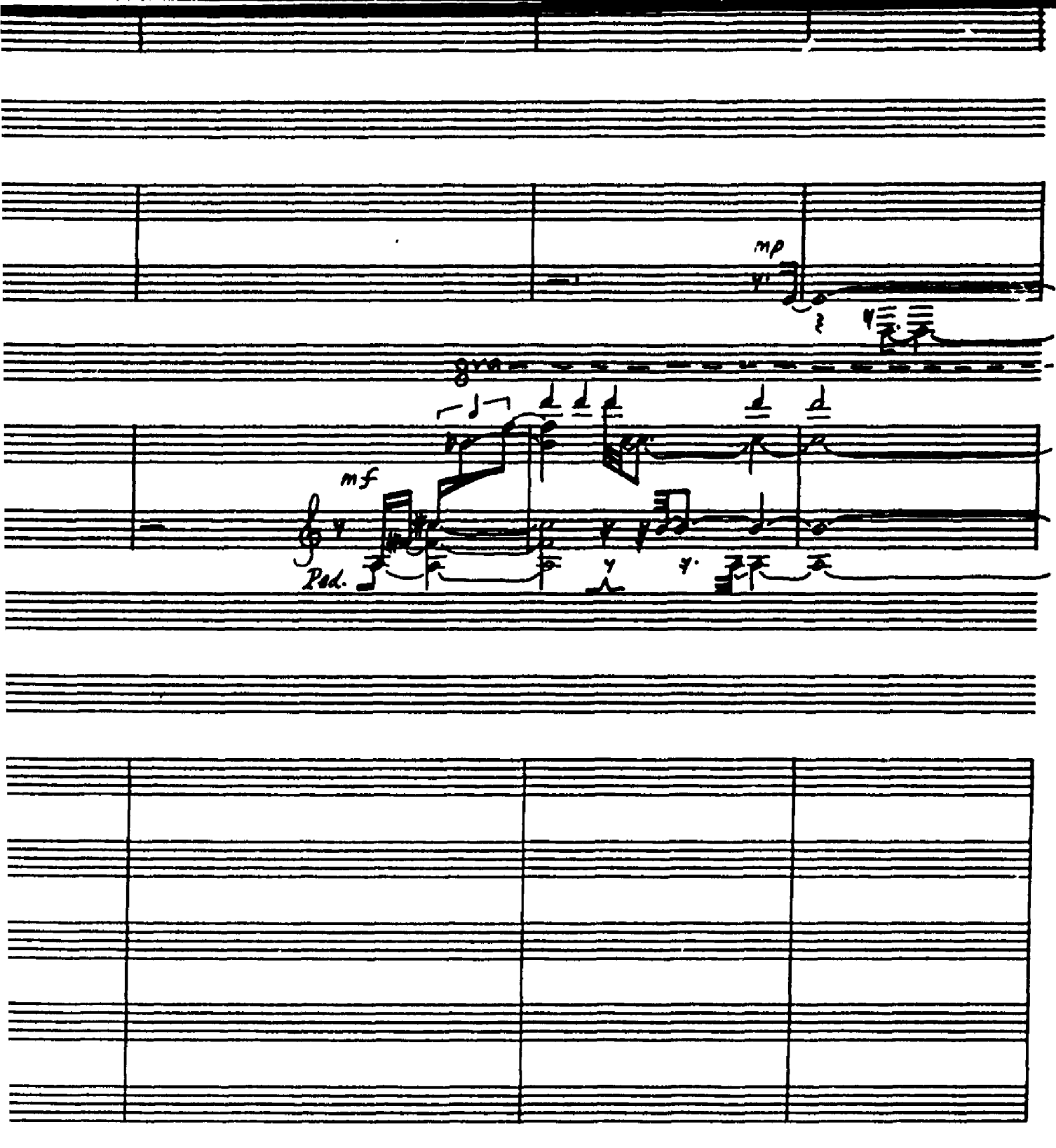

f
Hrp.
Pno.
mp
8va
ff
Ped
8va
I
Vln.
II
f
pp
pp
ff
Vla
ppp
ff
Vlc
div a2
ppp
ff
pp
ff
DB
pp

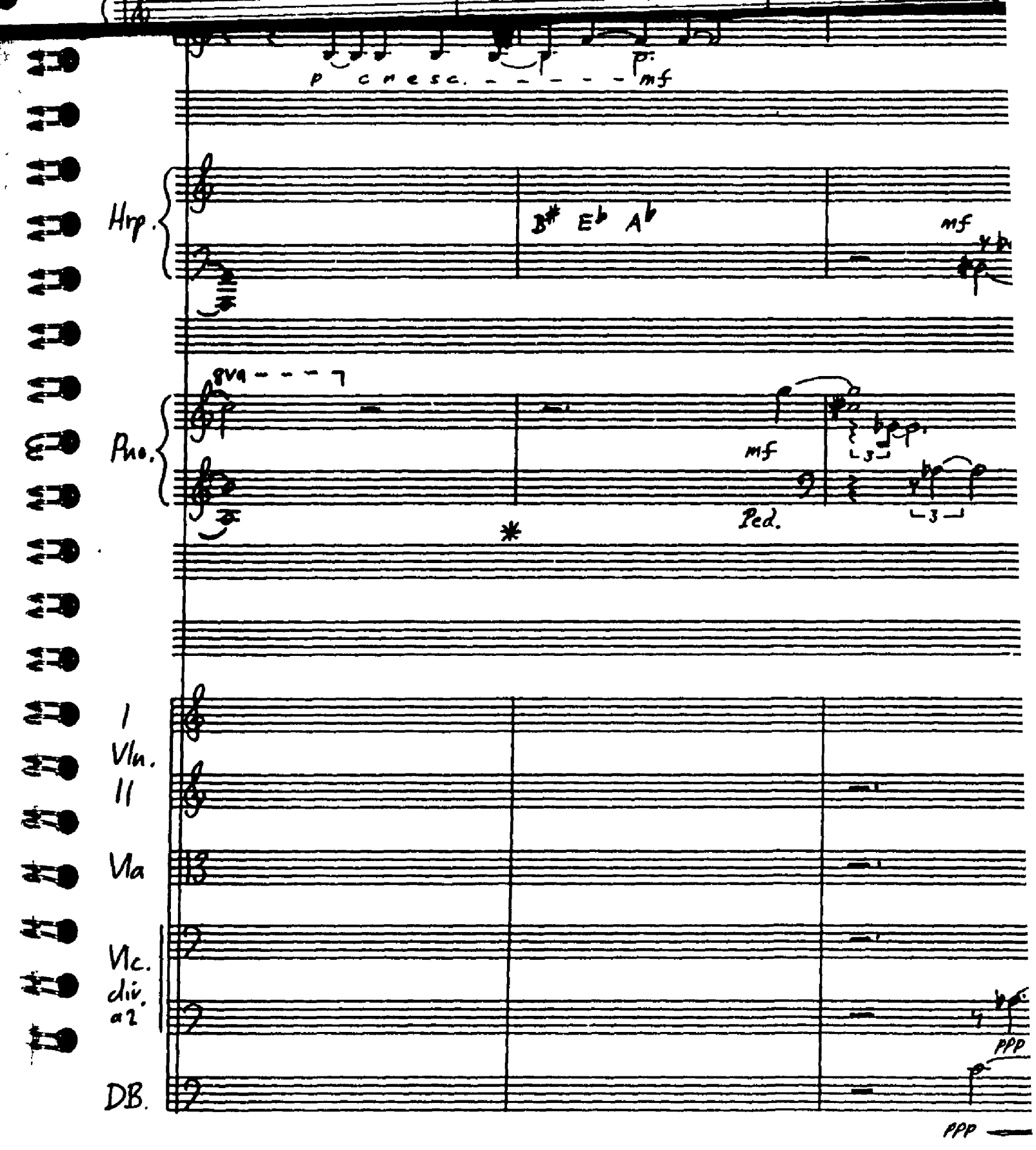

L
8va
15ma
simile
pp cresc.
ff
*
8va
8va
pp
mp
ppp
ff
ff
ff
ff
pp
mp
ppp

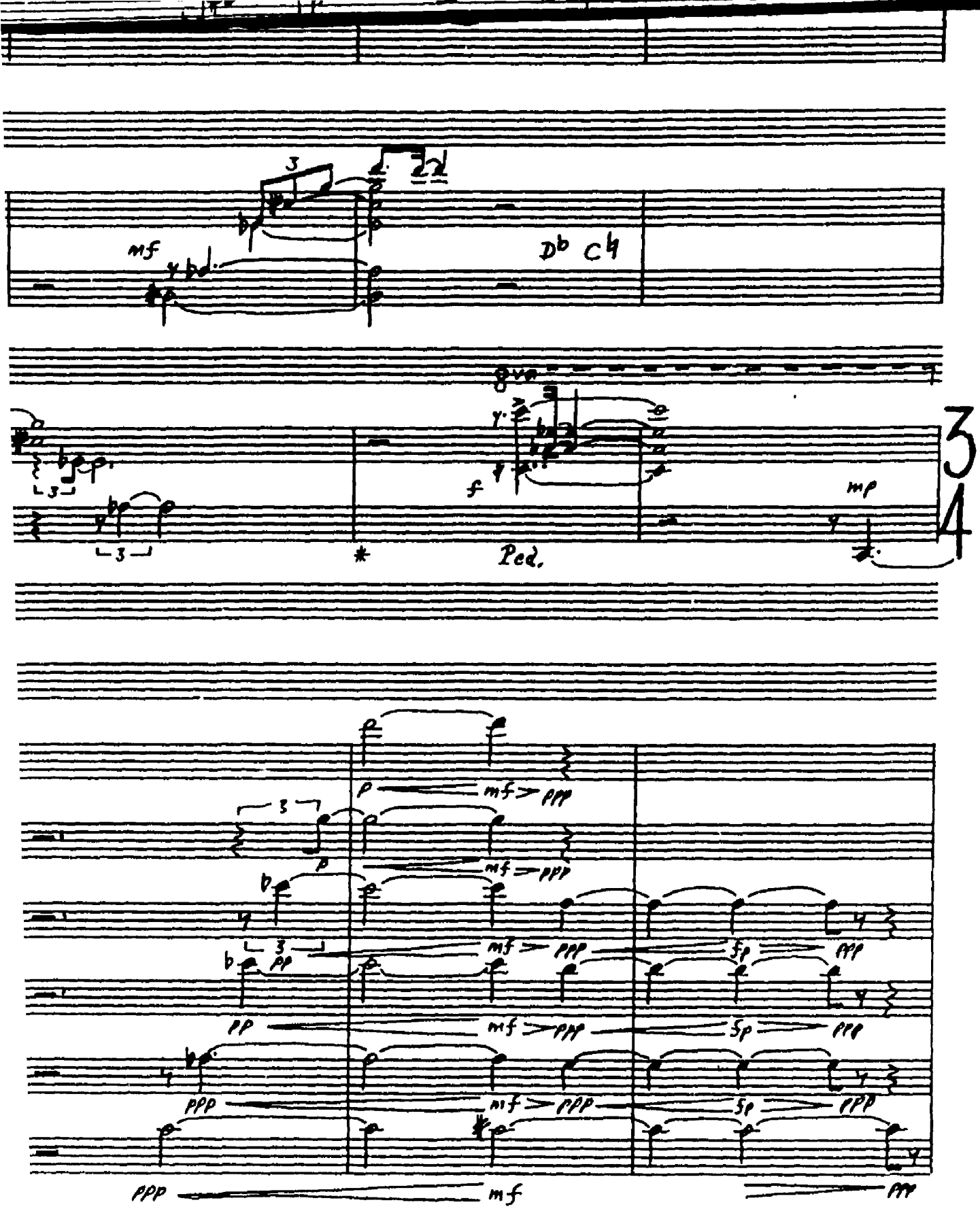

IV
Hrp.
8va
f
3
damp
Eb
Bb
Pno.
15ma
8va
pp
Ped.
I
Vlu.
II
Vla.
Vlc.
D.B.
f
pizz.
secco
pizz
secco
f

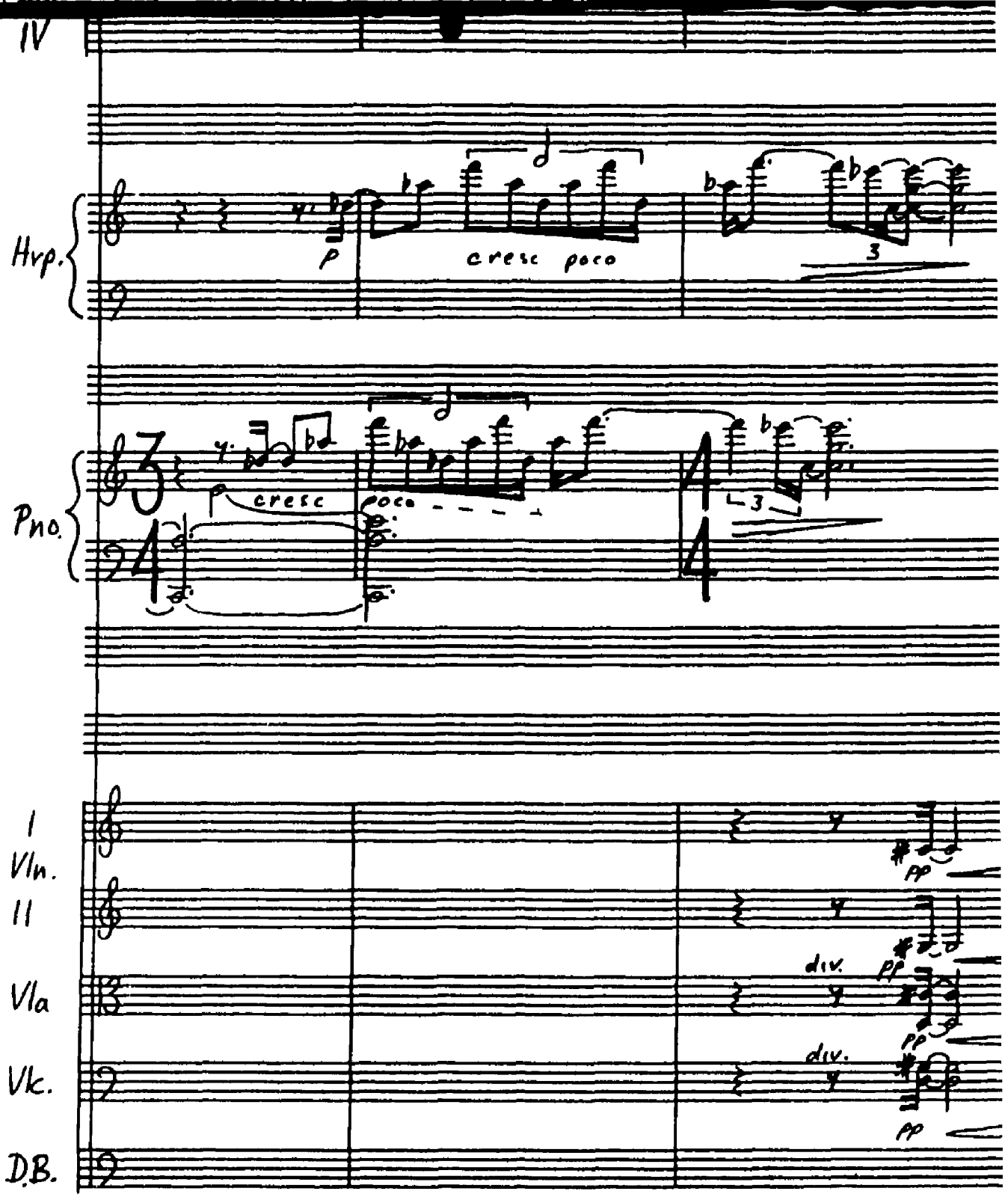

pp cresc
damp
E♮
B♮
♩ ca 100
mp
f
pp
Ped.
p
Ped.
secco
secco
f
(pizz.)
mp
mf

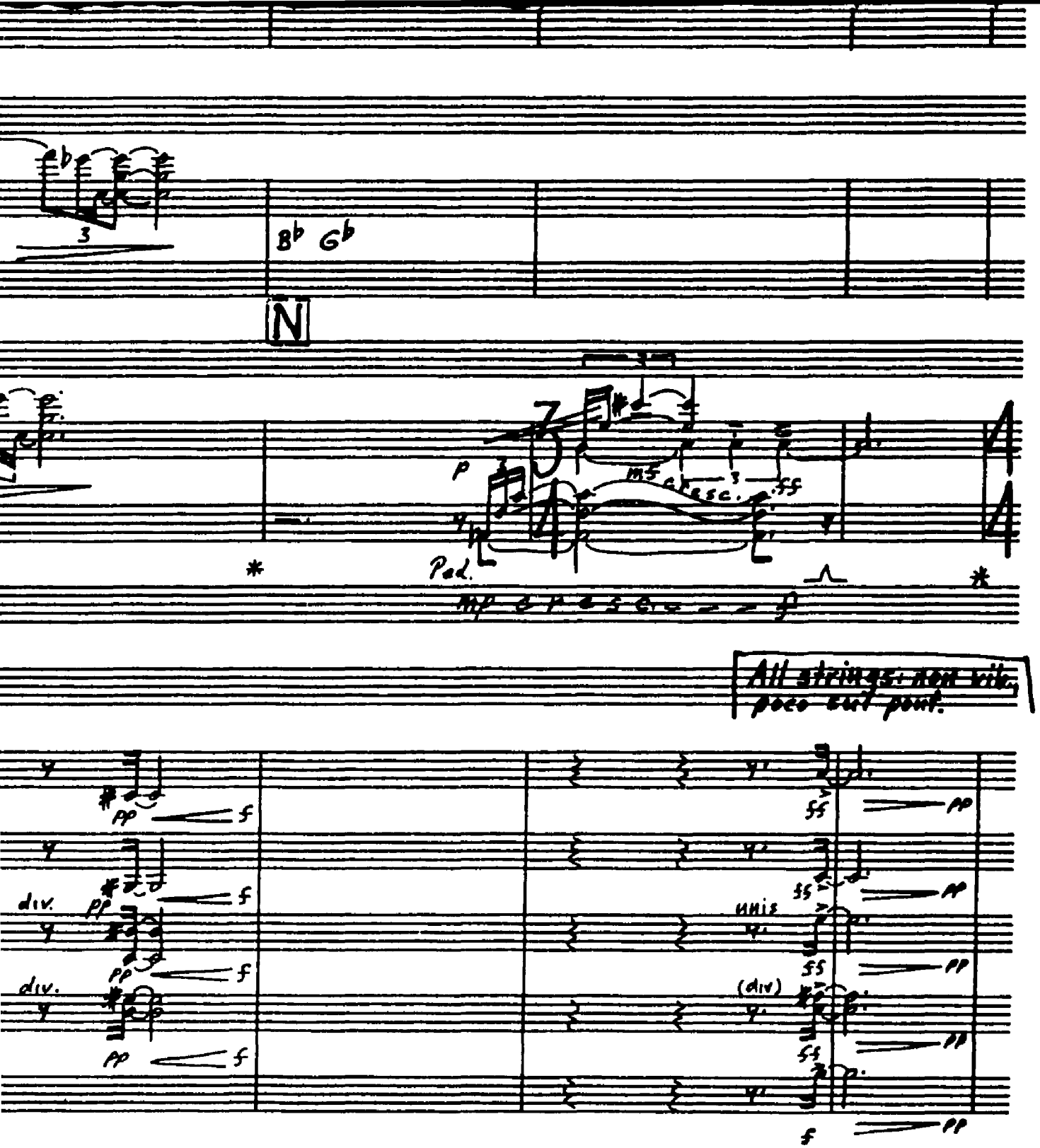

Hrp.
damp
M
♩ ca 76
Pno.
I
Vln.
II
Vla
Vlc.
DB.

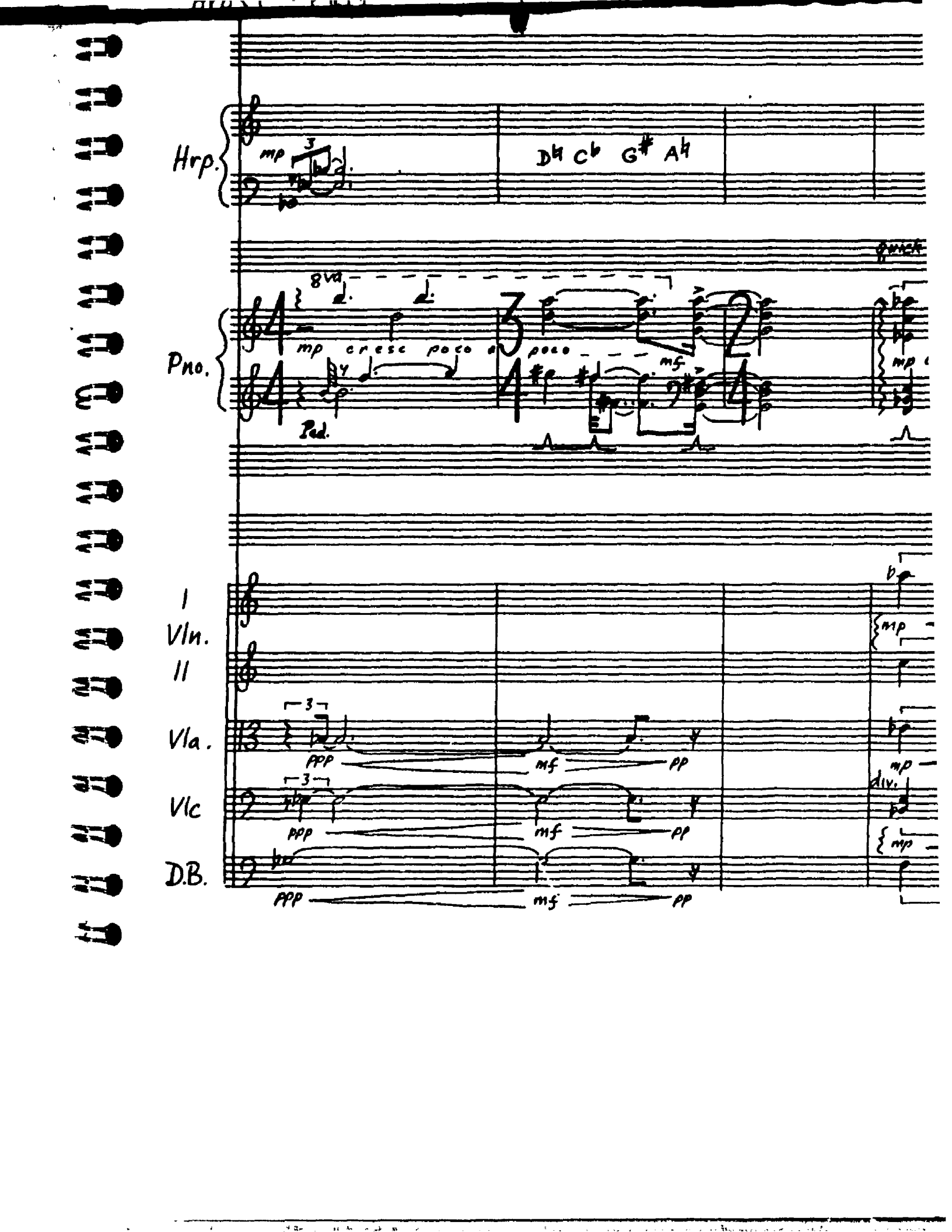

mp
gva
mf
Ped.

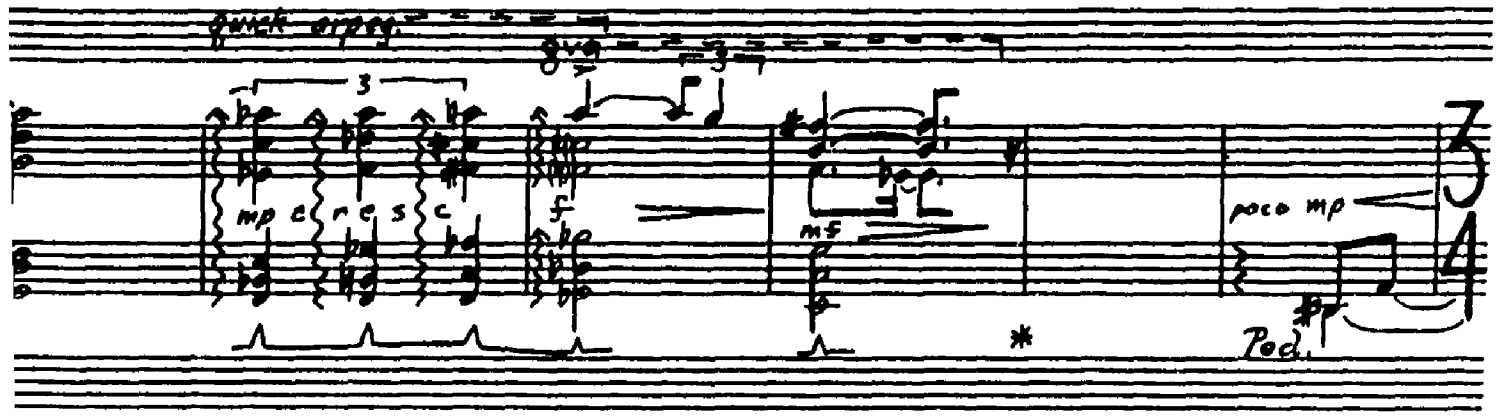

p cresc.
mf
Hrp.
B♯ E♭ A♭
mf
Pno.
8va
mf
Ped.
*
I
Vln.
II
Vla
Vlc.
div.
a2
DB.
PPP
PPP

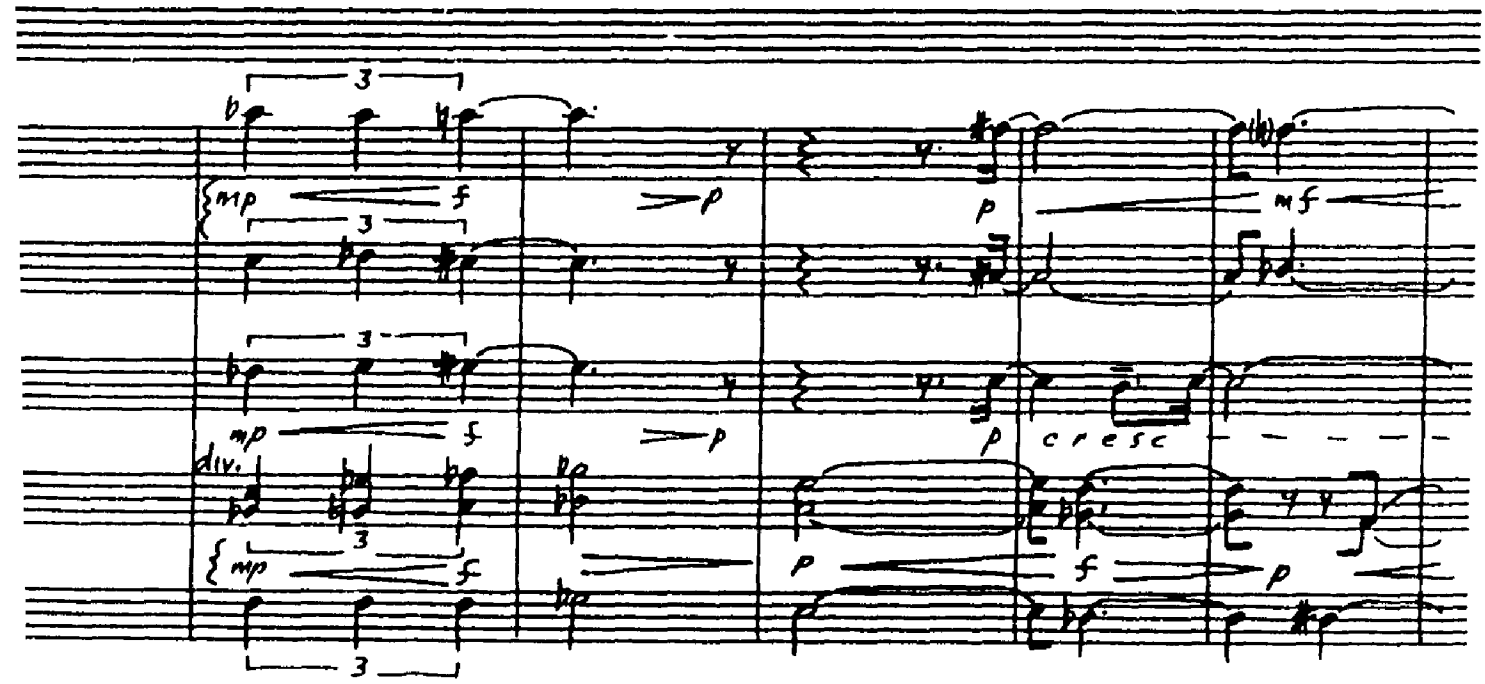

mf
D♭ C♮
8va
f
mp
Ped.
p
mf
ppp
pp
fp
3
4

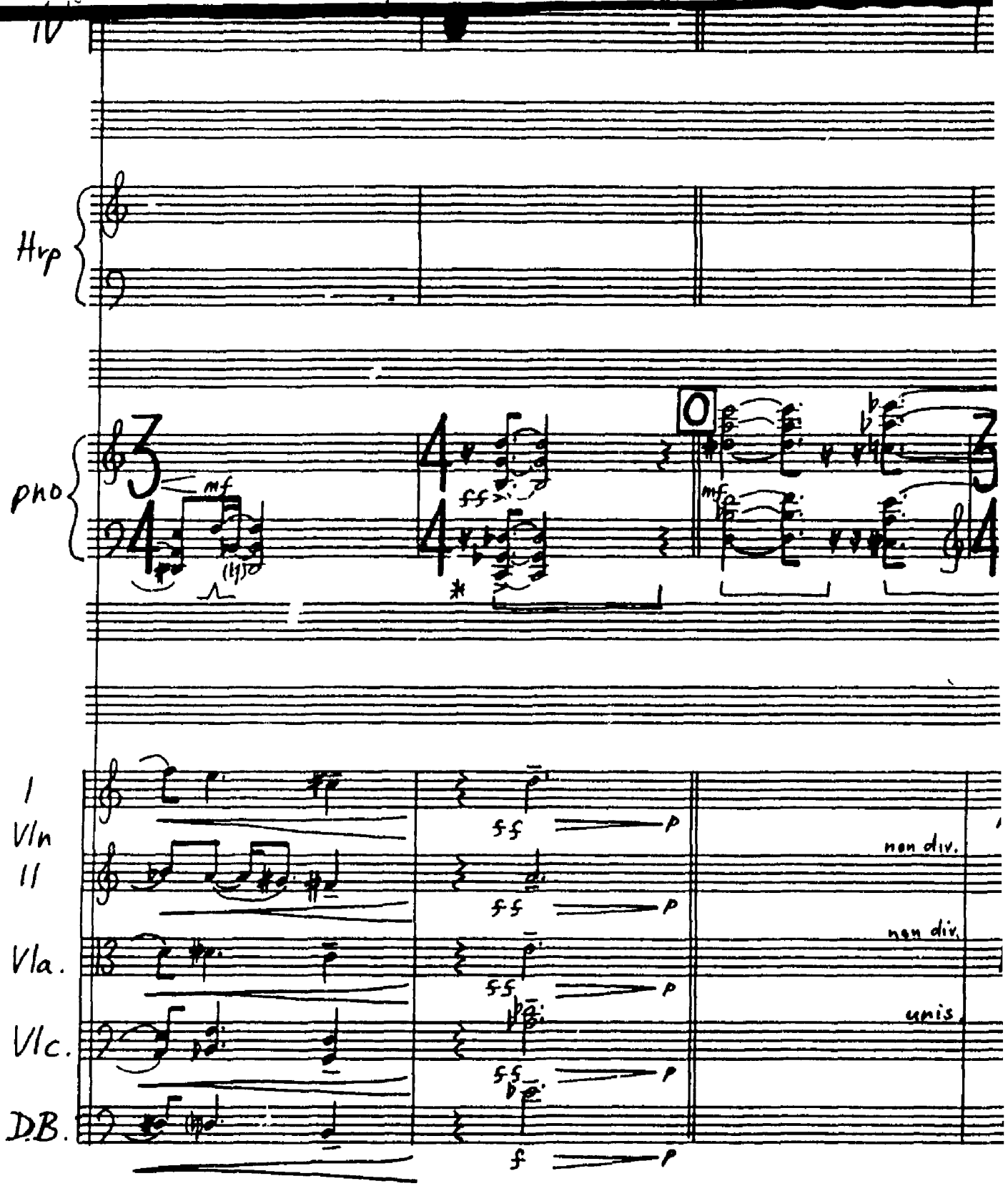

IV
Hrp.
p
cresc poco
3
Pno.
p
cresc
poco
3
I
Vln.
II
Vla
Vlc.
D.B.
pp
div.
pp
div.
pp

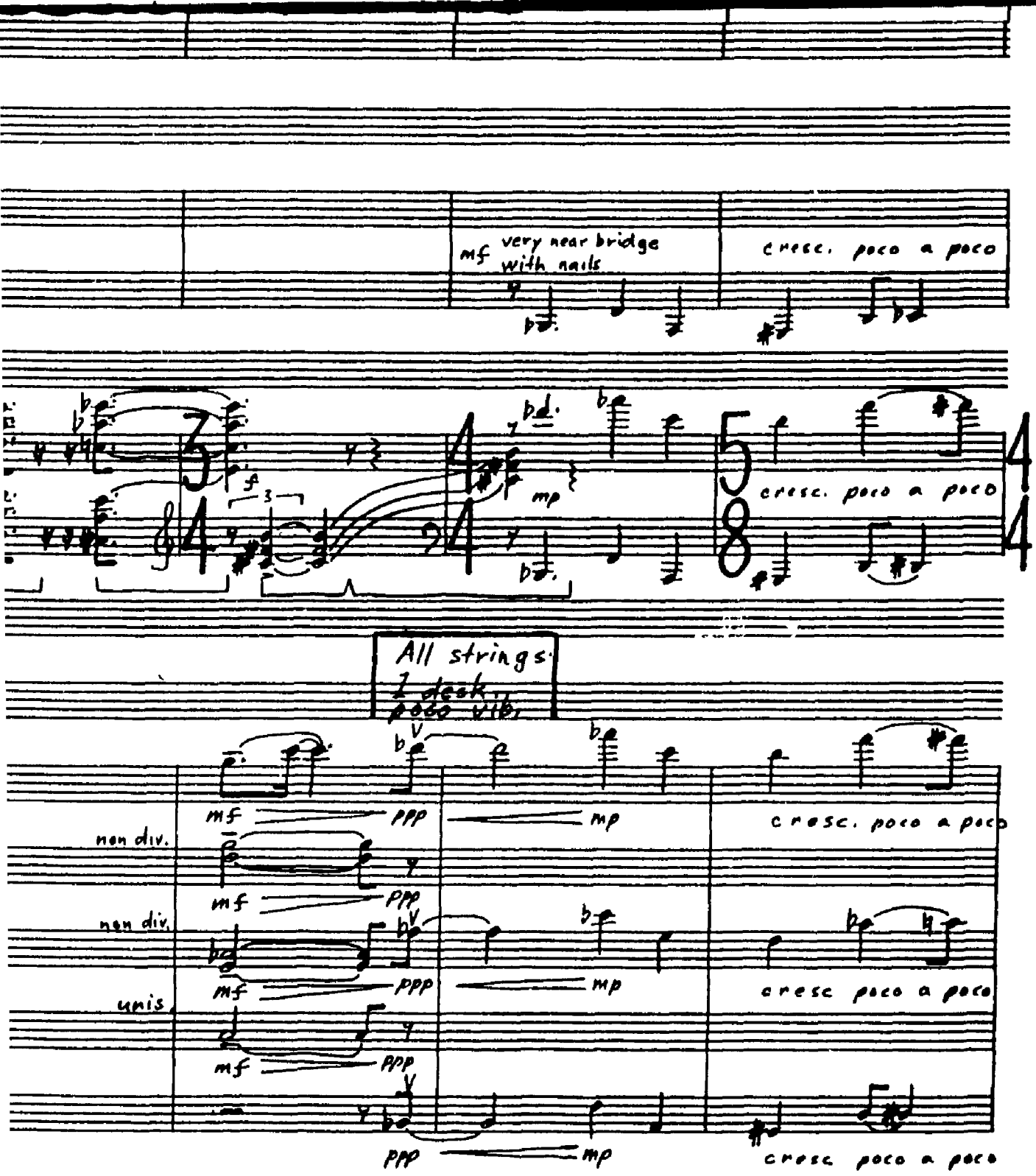

B♭ G♭
N
p
mf cresc.
ff
Ped.
mp cresc. f
All strings: non vib., poco sul pont.
pp
f
div.
unis
(div)
ff

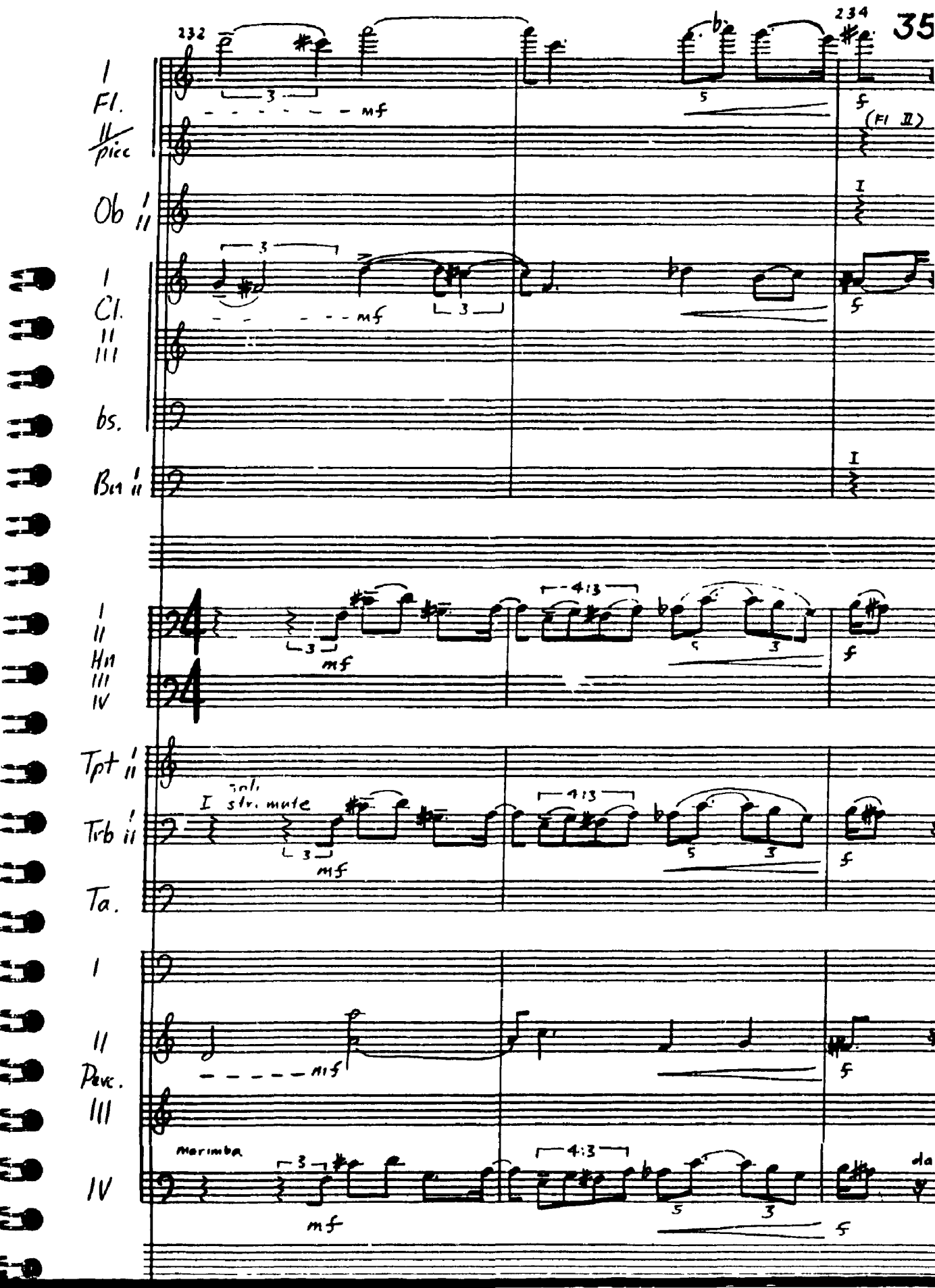

Hrp.
mp
3
D♭ C♭ G♯ A♭
Pno.
8va
mp cresc poco a
poco
mf
Ped.
quick
mp
I
Vln.
II
Vla.
Vlc
D.B.
3
ppp
mf
pp
div.
mp

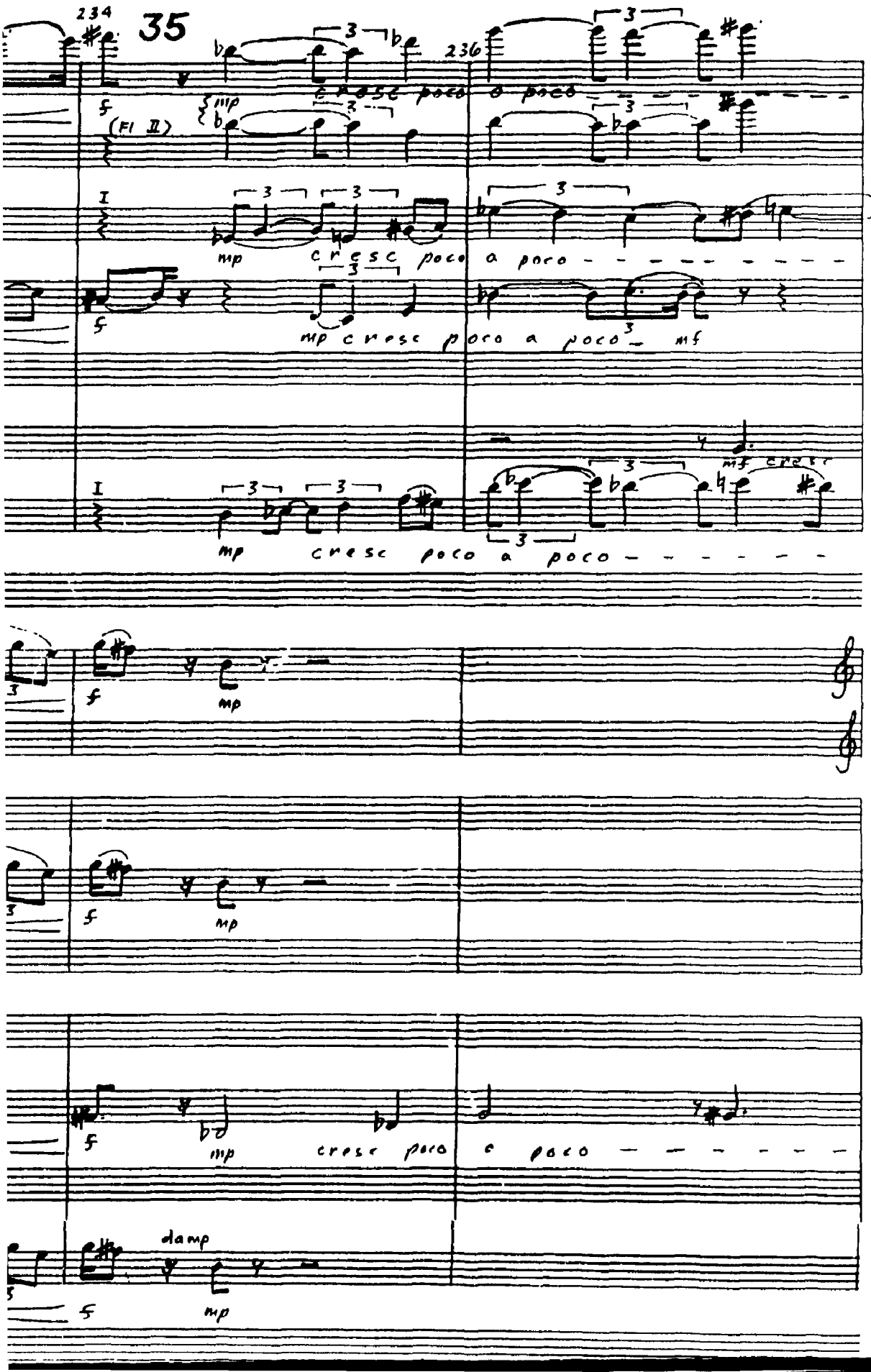

quick arpeg.
8va
mp cresc
f
mf
poco mp
Ped.

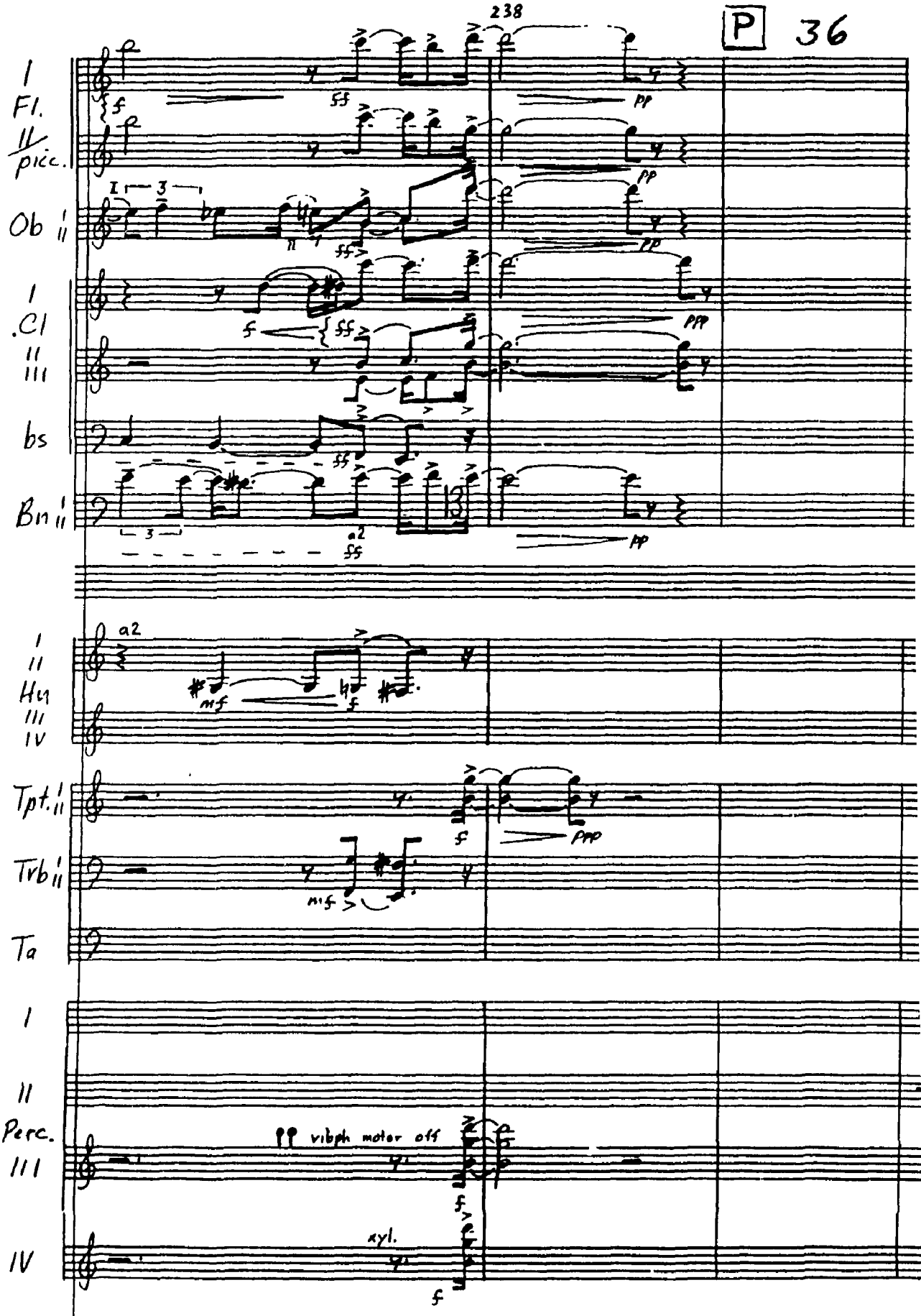

mp
f
p
mf
cresc
div.


IV
Hrp
pno
mf
ff
mf
O
I
Vln
II
Vla.
Vlc.
D.B.
ff
p
non div.
non div.
unis.

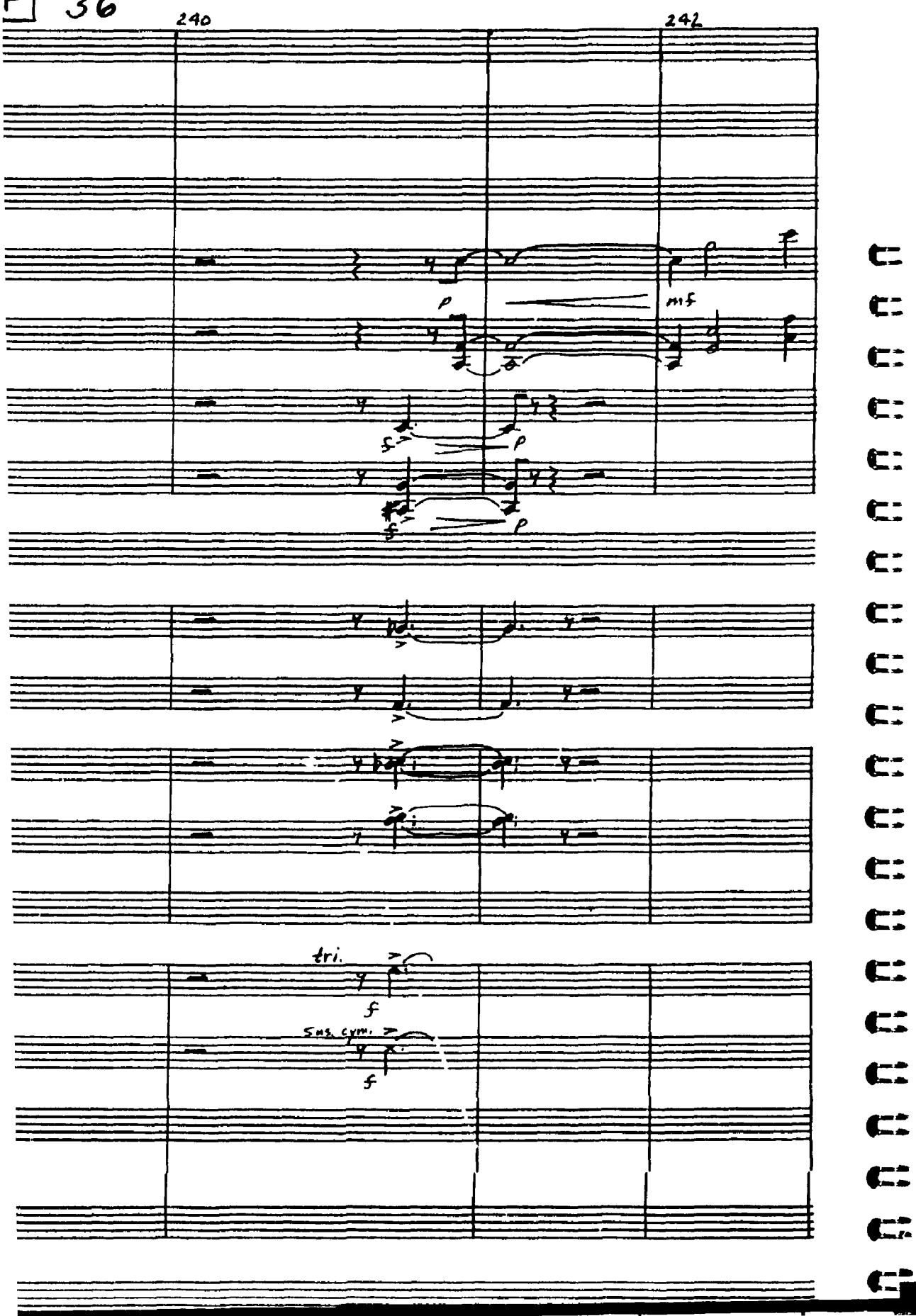

mf very near bridge
with nails
cresc. poco a poco
mp
cresc. poco a poco
All strings
1 desk
poco vib.
mf
ppp
mp
cresc. poco a poco
non div.
non div.
unis
cresc poco a poco
cresc poco a poco

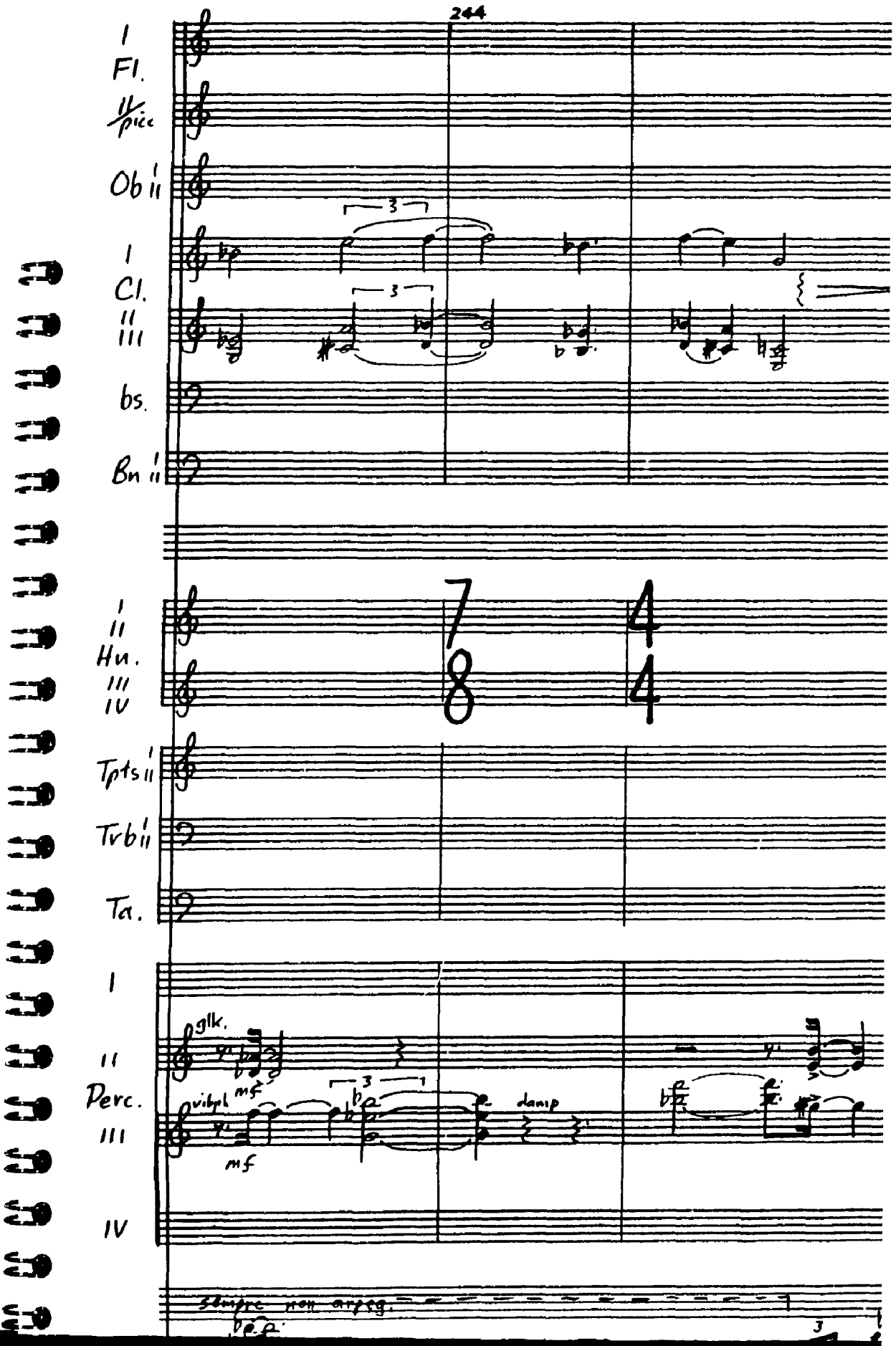

232
234
I
Fl.
II
picc
Ob
I
II
I
Cl.
II
III
bs.
Bn
I
II
Hn
III
IV
Tpt
I
II
Trb
Ta.
I
II
Perc.
III
IV
mf
f
(Fl II)
I
4:3
soli
I str. mute
marimba
da


234
35
236
f
mp
cresc poco a poco
(Fl II)
I
mp cresc poco a poco
f
mp cresc poco a poco mf
mf cresc
I
mp cresc poco a poco
f
mp
f
mp
f
mp cresc poco a poco
damp
f
mp


238
P 36
I
Fl.
II
picc.
Ob I II
I
.Cl
II
III
bs
Bn I II
a2
a2
I
II
Hn
III
IV
Tpt. I II
Trb I II
Tb
I
II
Perc.
III
IV
vibph motor off
xyl.

P 36




244
I
Fl.
II/picc
Ob I II
I
Cl.
II
III
bs.
Bn I II
I
II
Hn.
III
IV
7
8
4
4
Tpts I II
Trb I II
Ta.
I
II
Perc.
III
IV
glk.
mf
vibph
mf
damp
sempre non arpeg.

37 Q

246

248

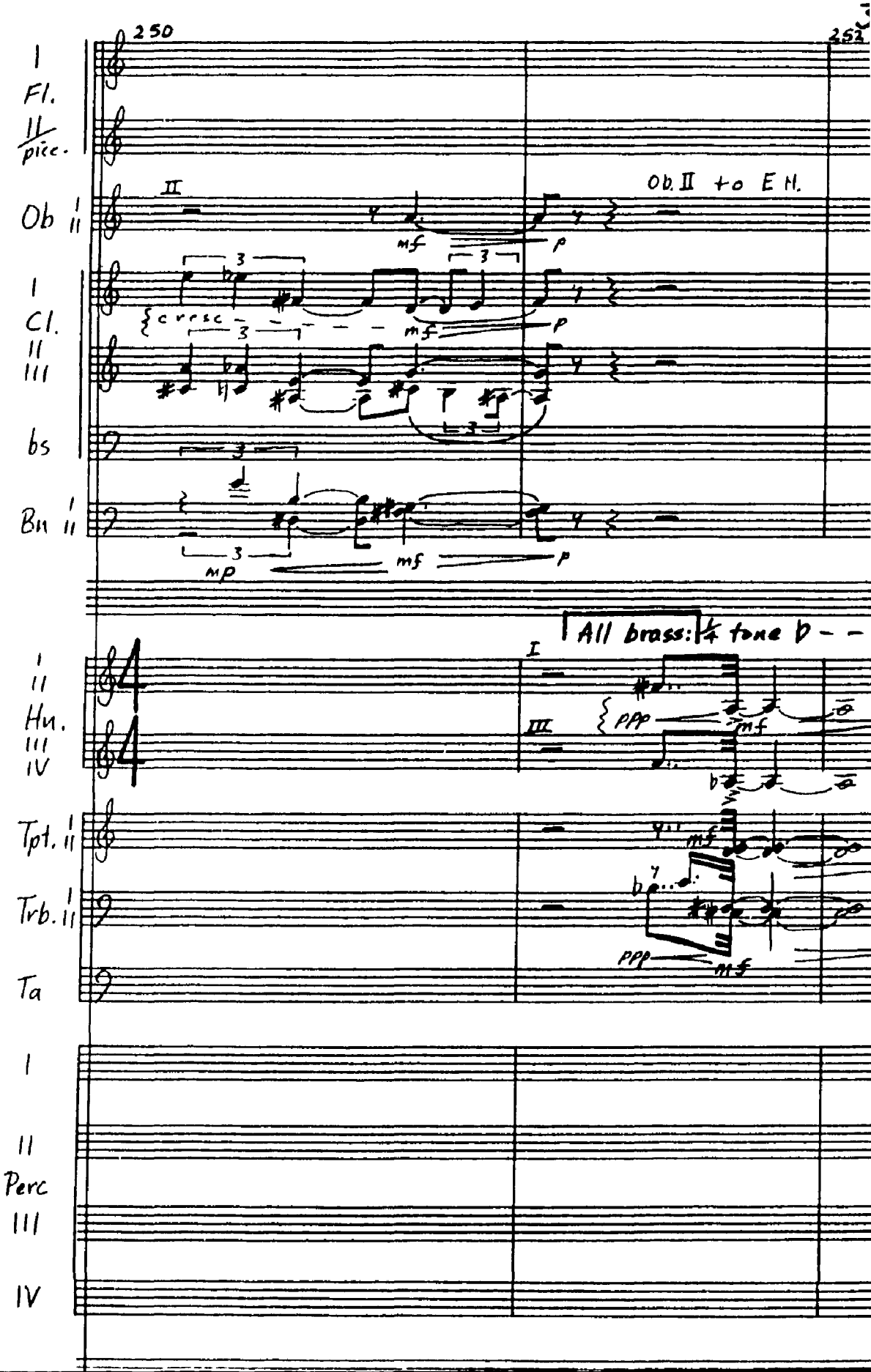
pp

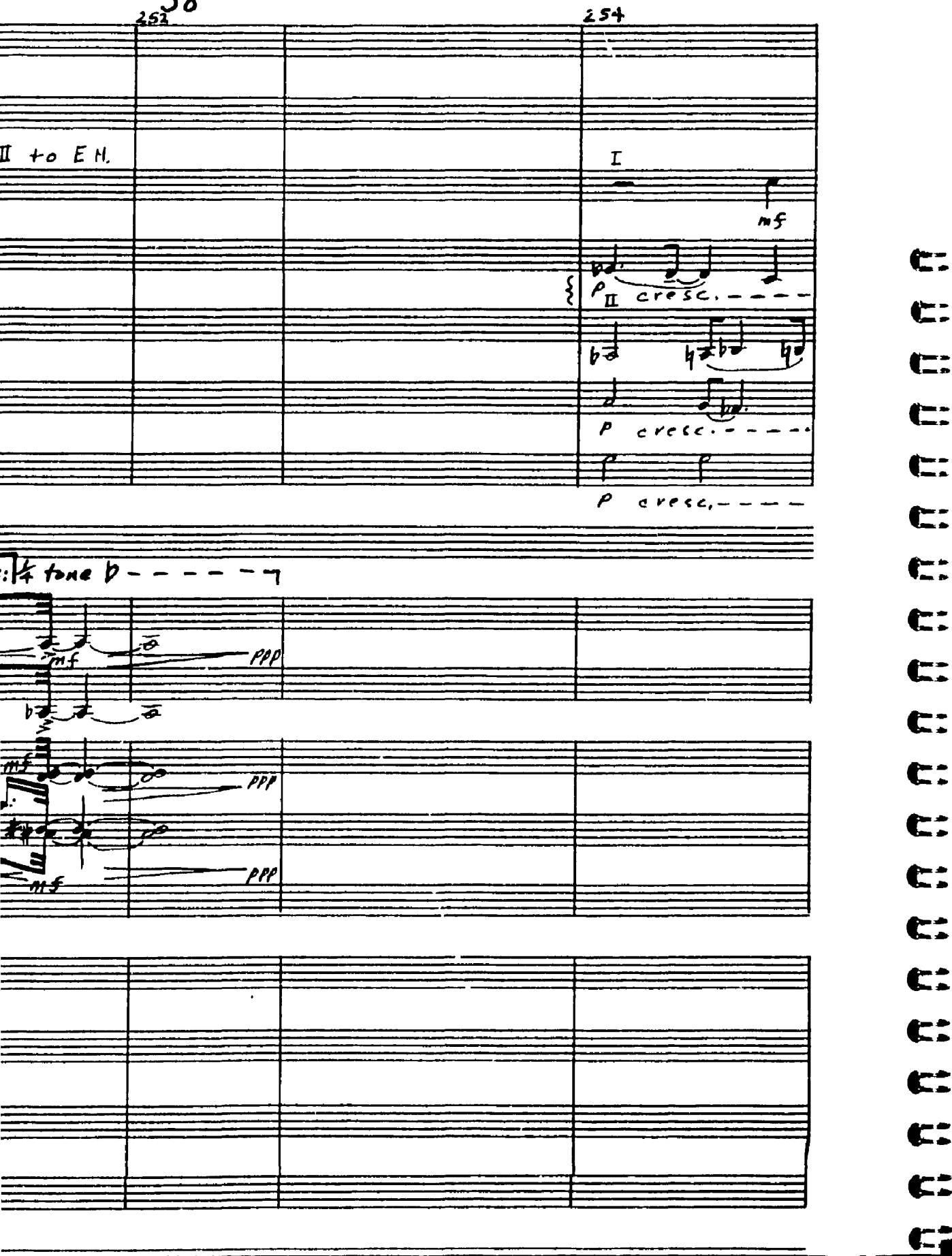
mp cresc.

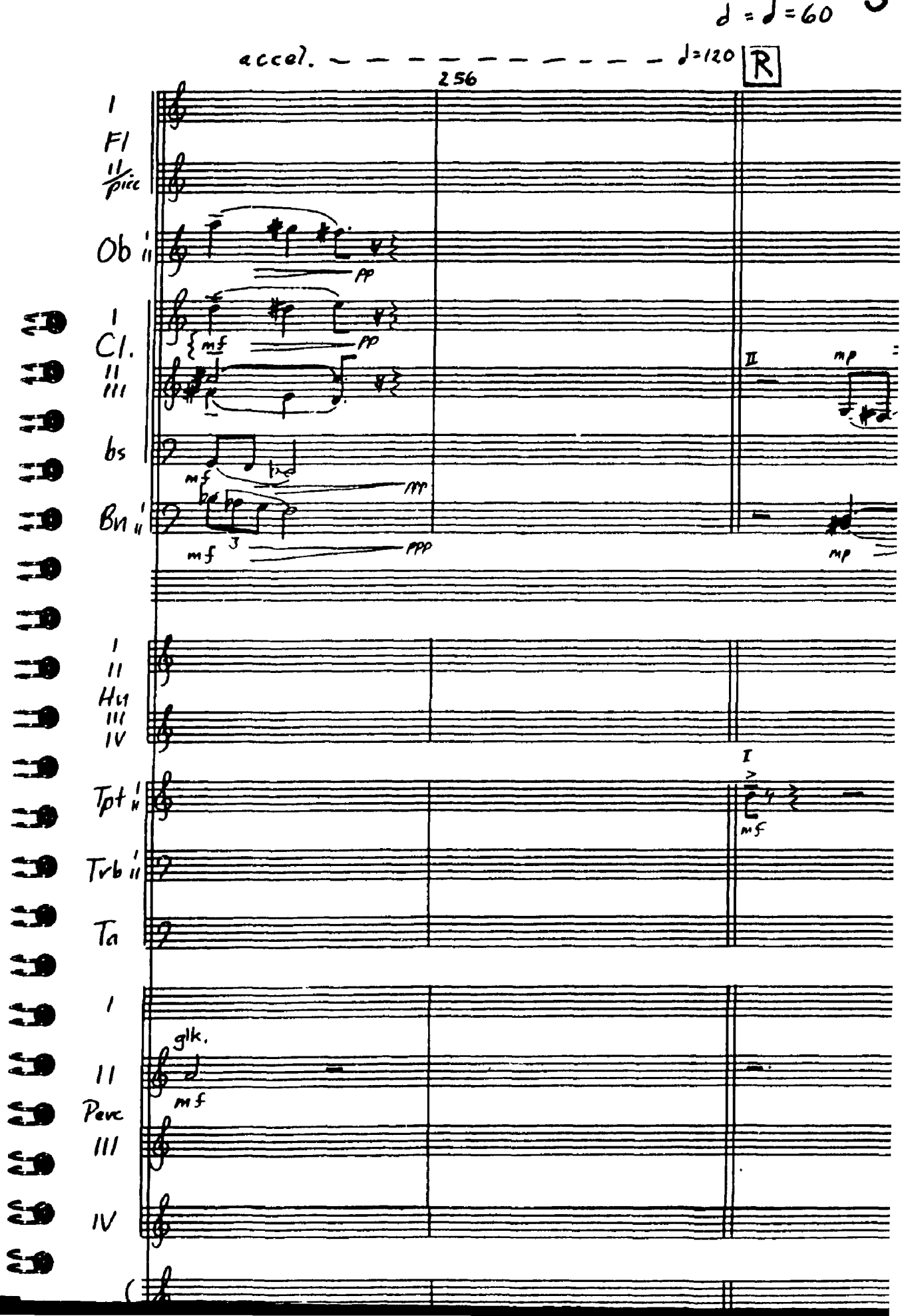
3/8 2/4 3/4 4/4

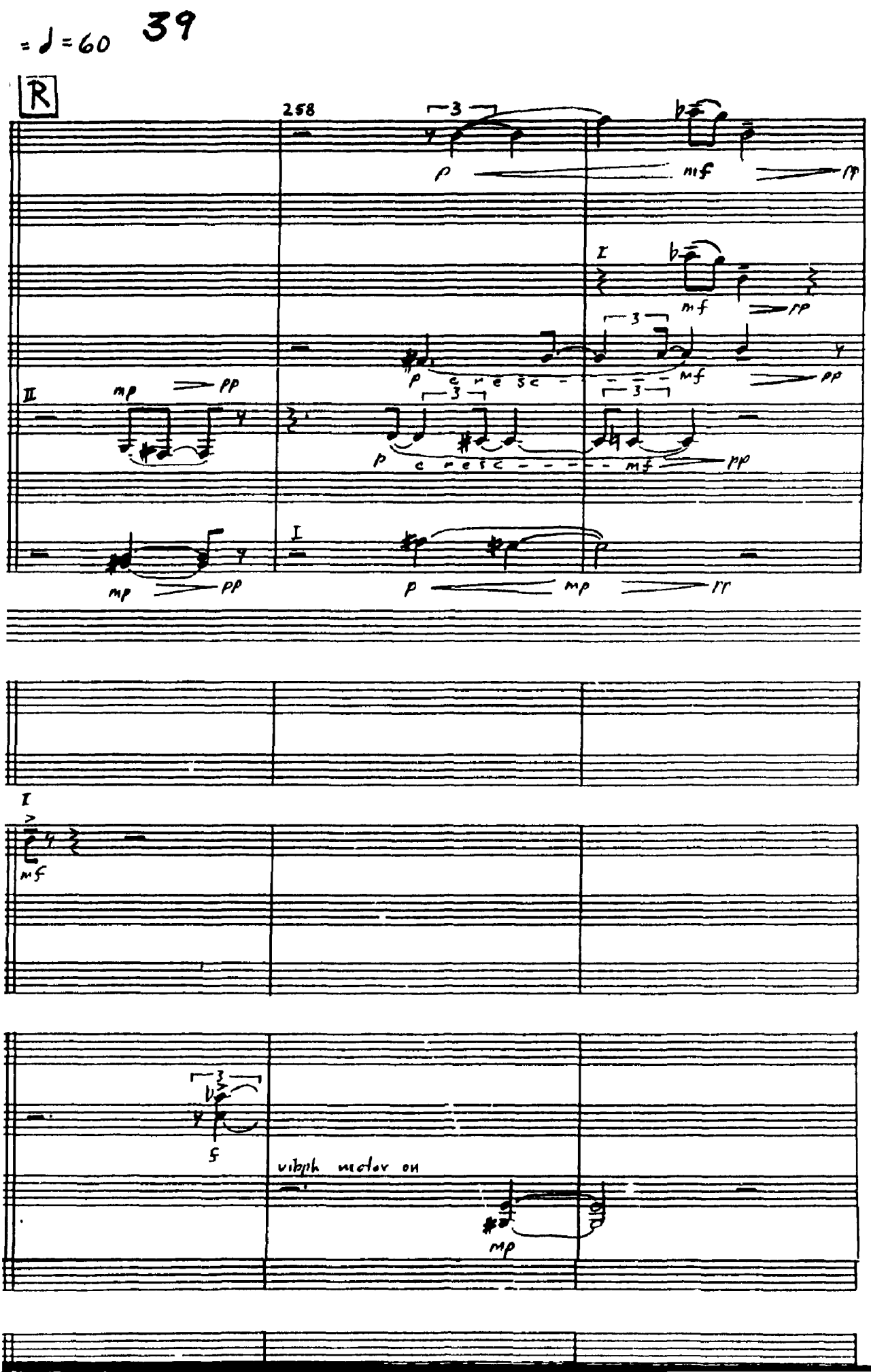
(damp)

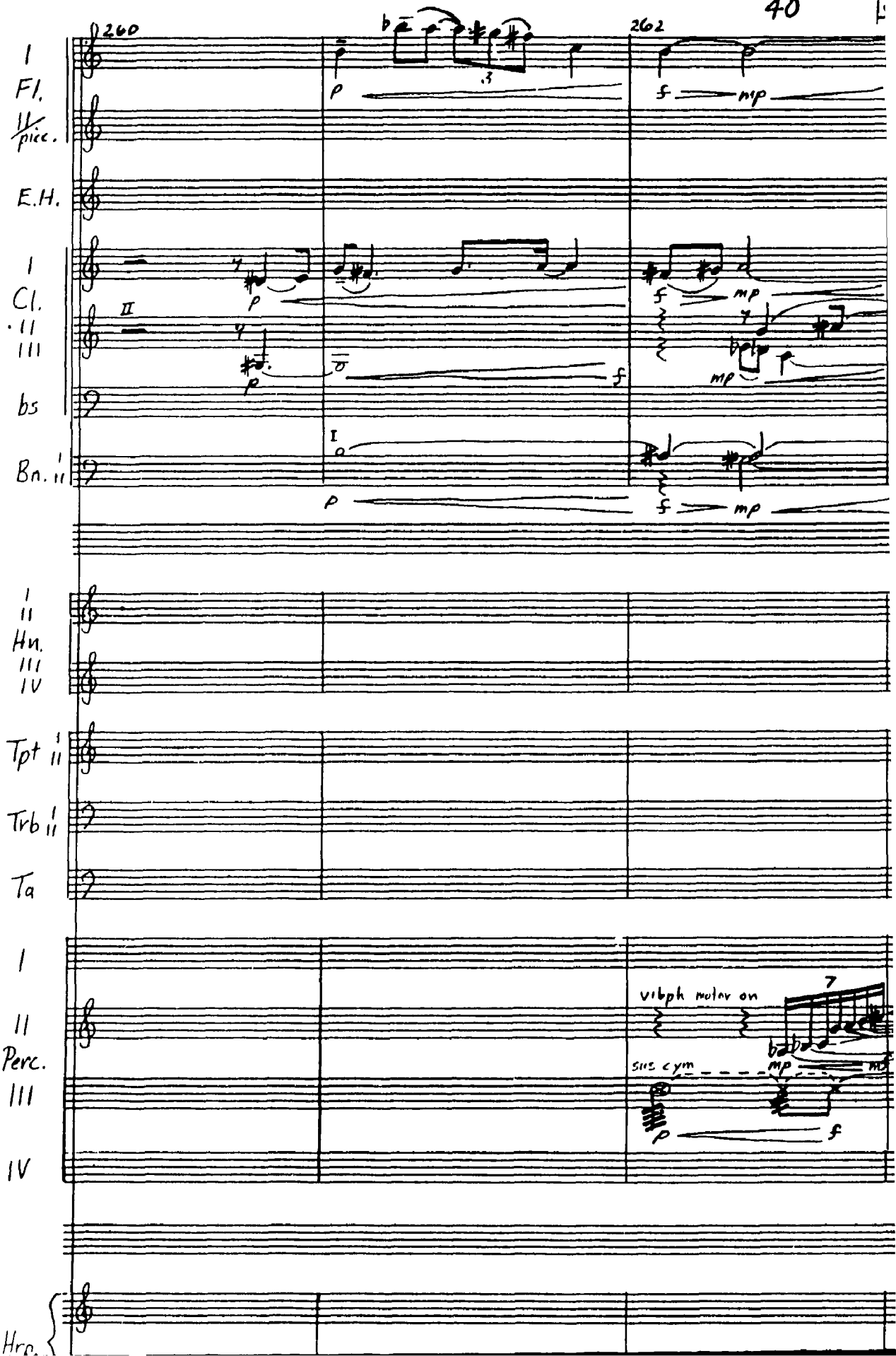
damp

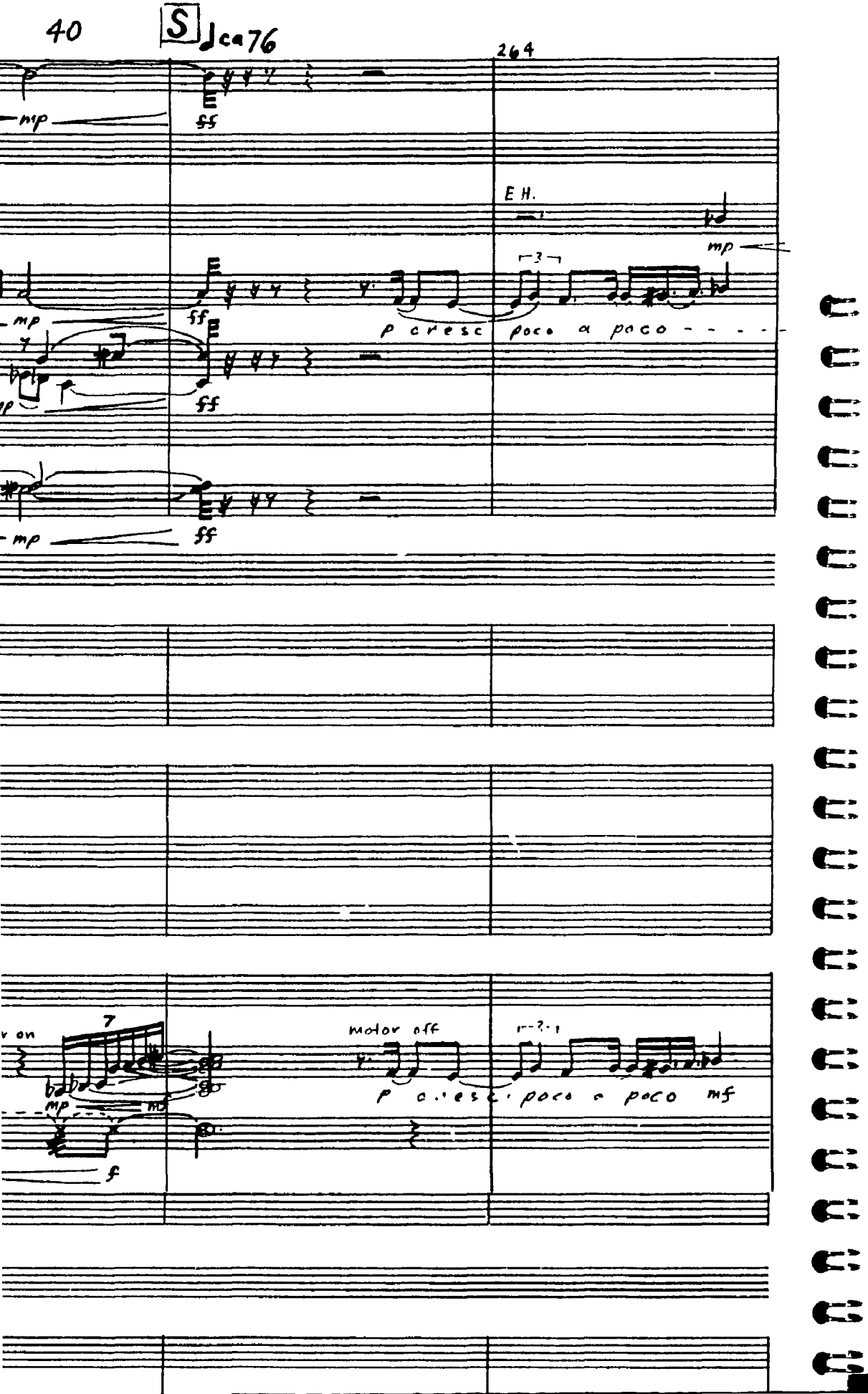

250
252
I
Fl.
II
picc.
Ob
II
Ob. II to E.H.
mf
p
I
Cl.
II
III
cresc
mf
p
bs
Bn
I
II
mp
mf
p
All brass: 1/4 tone b - -
I
II
Hn.
III
IV
III
ppp
mf
Tpt.
I
II
mf
Trb.
I
II
ppp
mf
Ta
I
II
Perc
III
IV

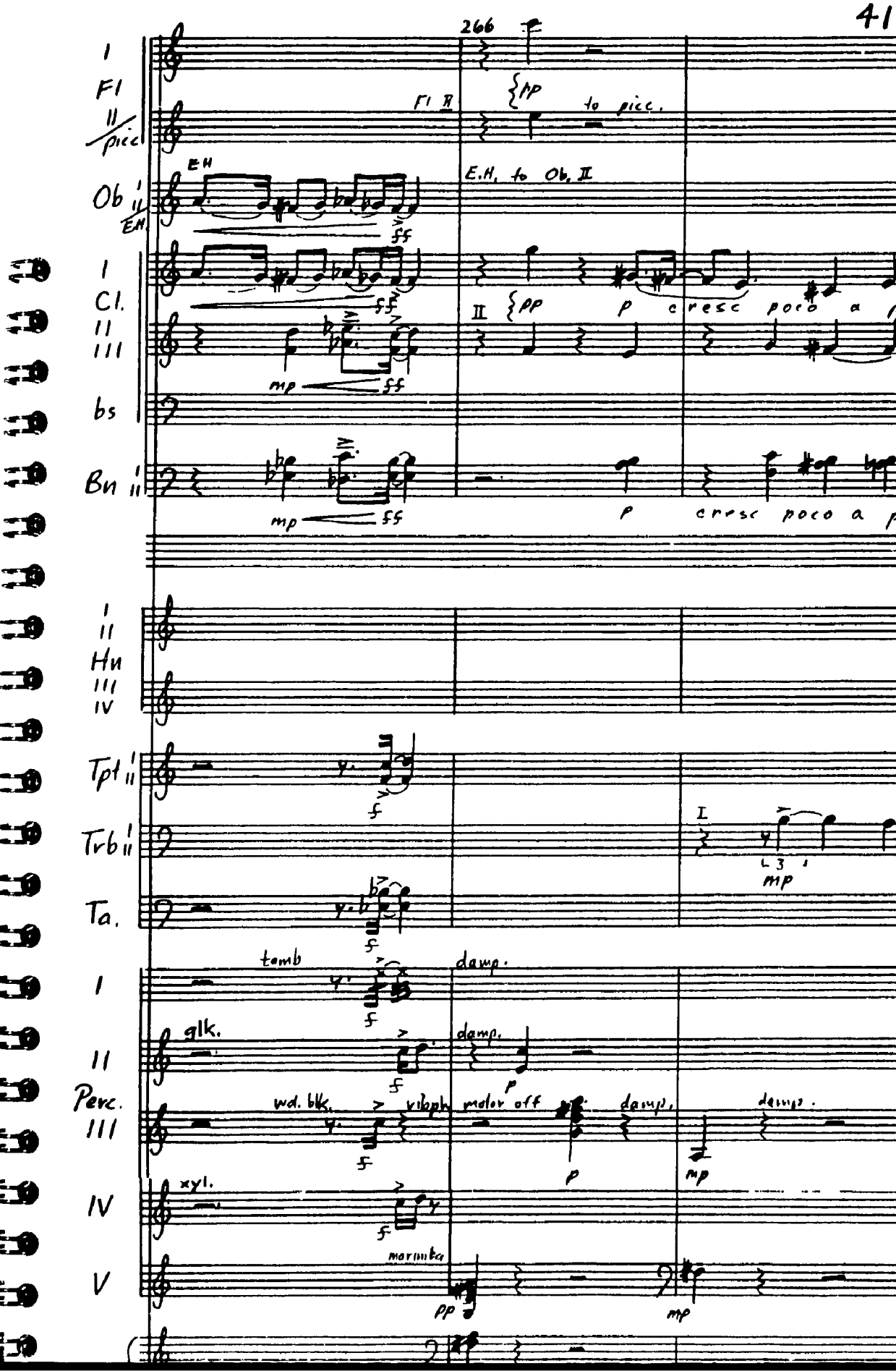

253
254
II to E H.
I
mf
p II cresc.
p cresc.
p cresc.
¼ tone b
mf
ppp
mf
ppp
mf
ppp


♩ = ♩ = 60
accel. ♩=120
256
R
I
Fl
II/picc
Ob
Cl.
bs
Bn
Hn
Tpt
Trb
Ta
Perc
III
IV
glk.
mf
pp
mp
ppp

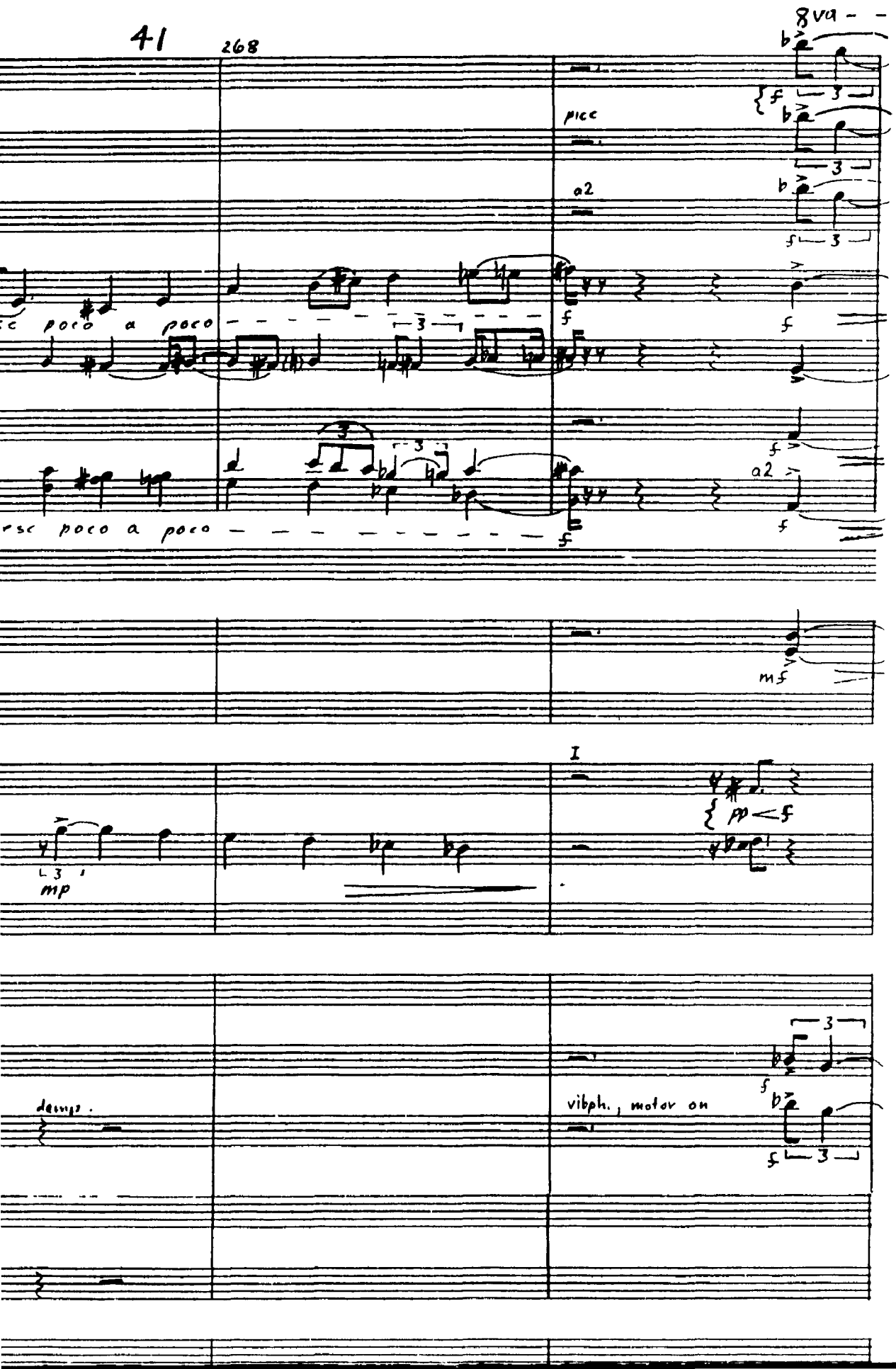

= ♩ = 60
39
R
258
p
mf
pp
I
mf
pp
p cresc
mf
pp
II
mp
pp
p cresc
mf
pp
mp
pp
I
p
mp
pp
I
mf
f
vibph motor on
mp

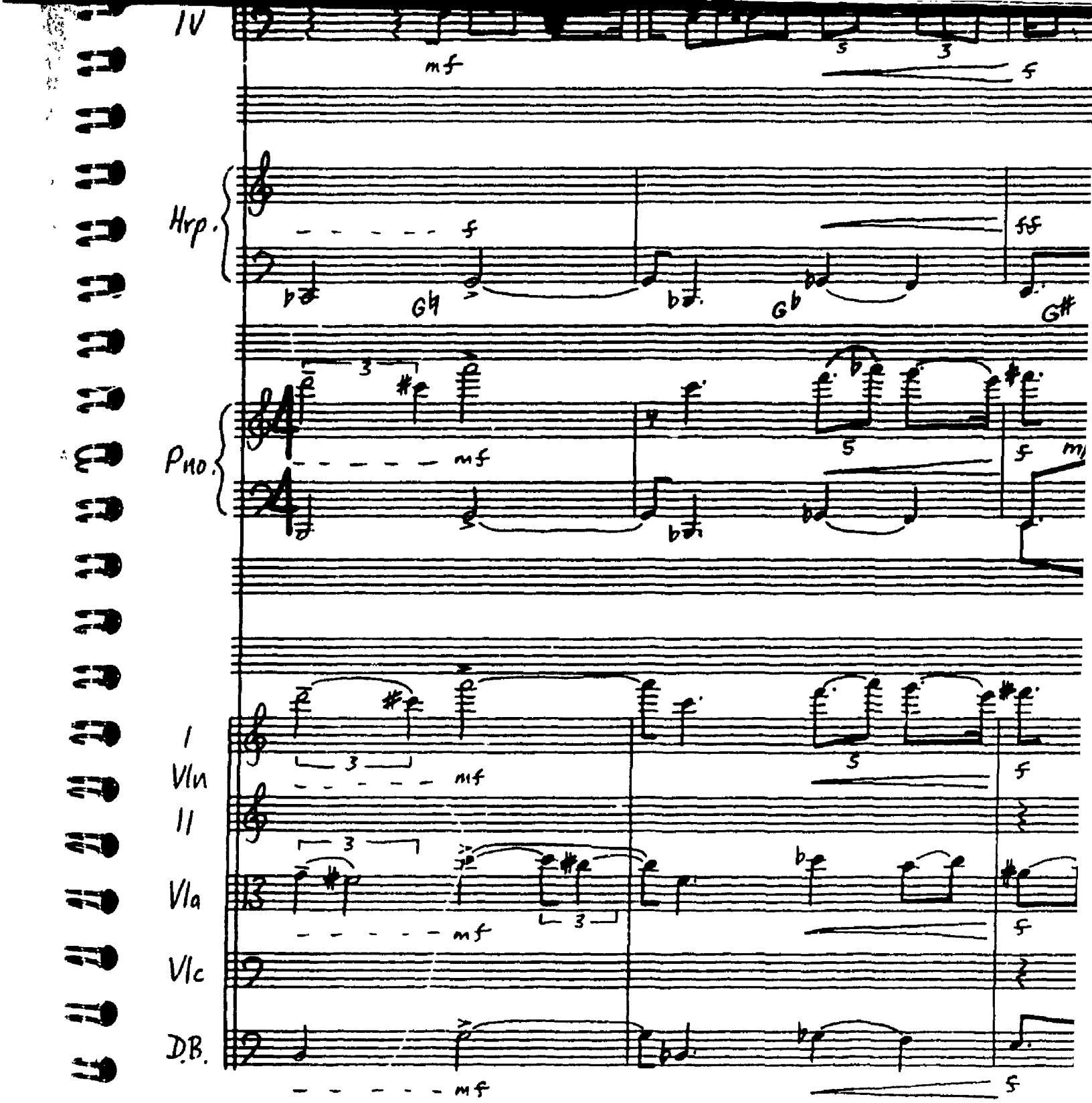

260
262
I
Fl.
II
picc.
E.H.
I
Cl.
II
III
bs
Bn. I
II
Hn. I
II
III
IV
Tpt I
II
Trb I
II
Ta
I
II
Perc.
III
IV
vibph motor on
sus cym
Hrp.

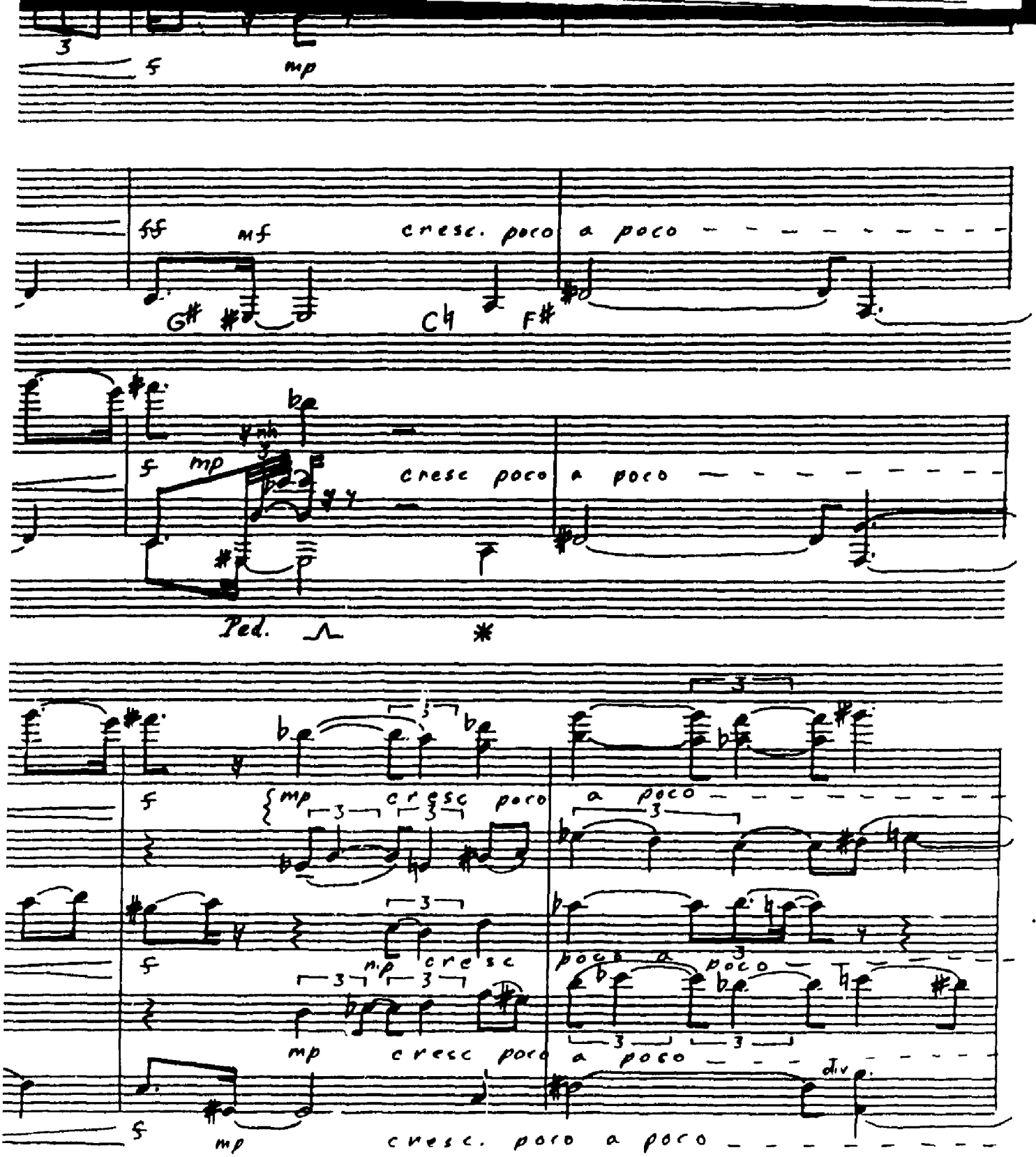

40
S
ca 76
264
mp
ff
E.H.
mp
p cresc poco a poco
mp
ff
ff
mp
ff
motor off
p cresc poco a poco mf
mp
mf
f

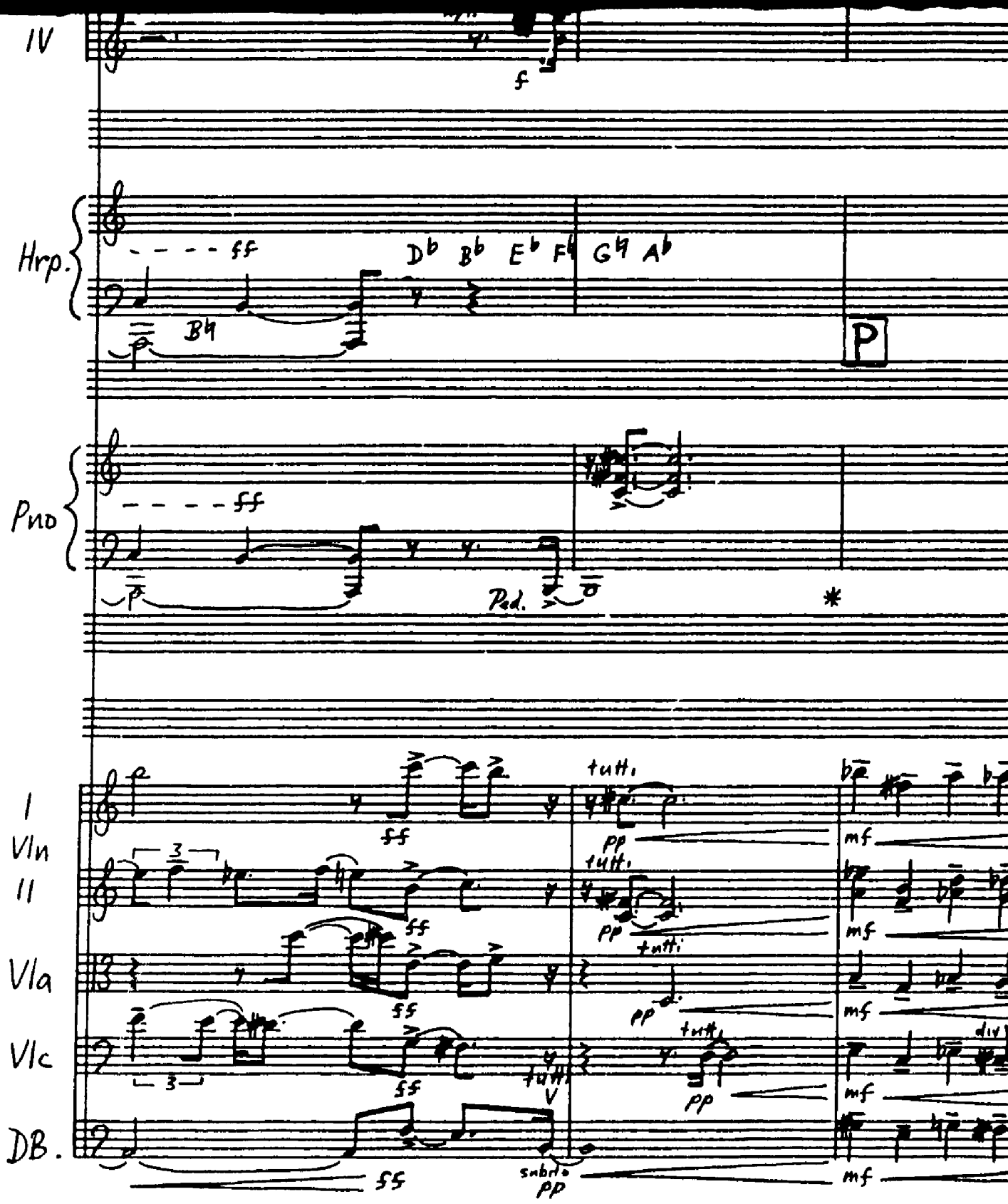

266
Fl
Fl II
to picc.
Ob
E.H.
E.H. to Ob. II
Cl.
II
III
bs
Bn
cresc poco a
Hn
Tpt
Trb
Ta.
tamb
damp.
glk.
Perc.
wd. blk.
vibph
motor off
xyl.
marimba

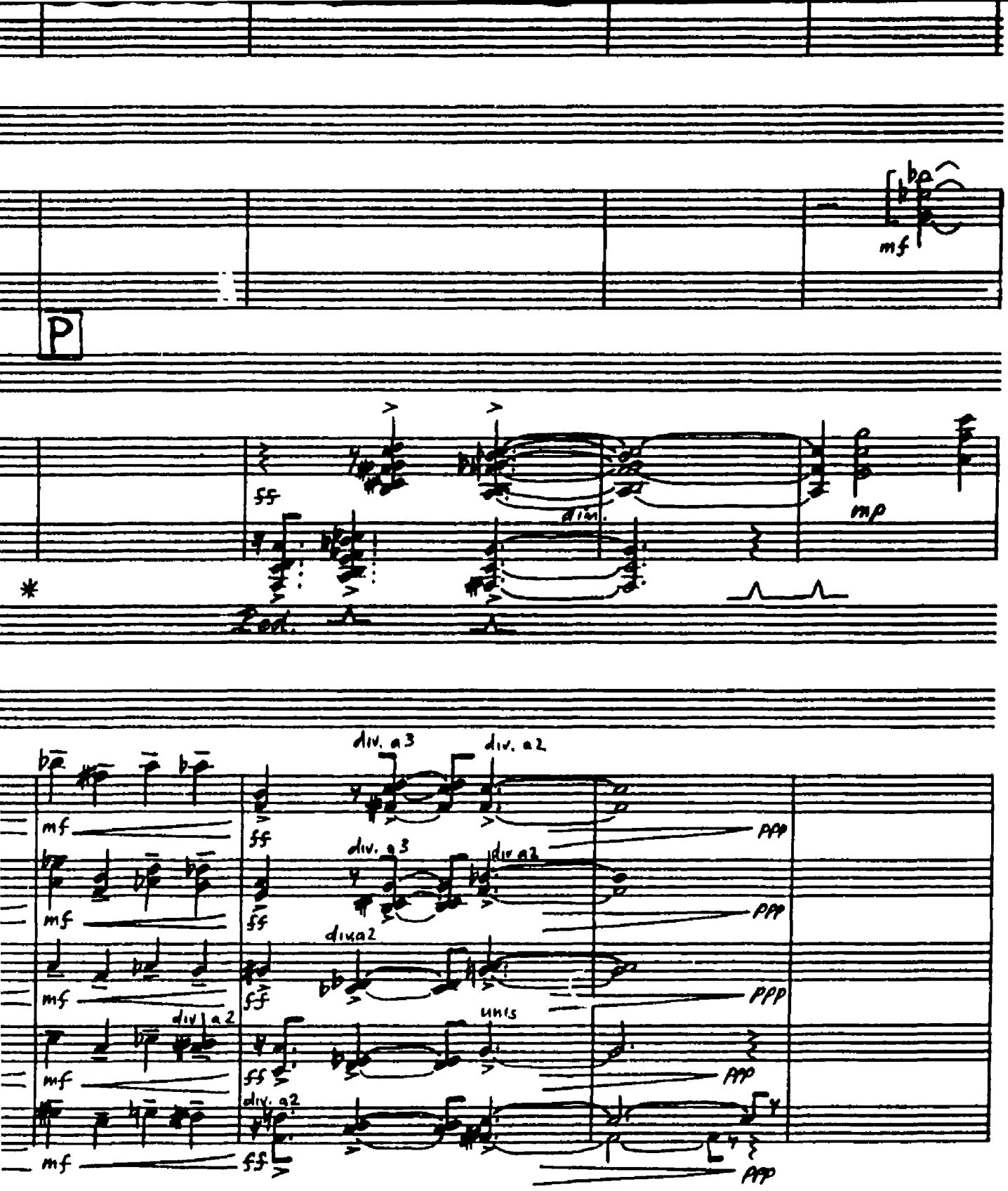
268

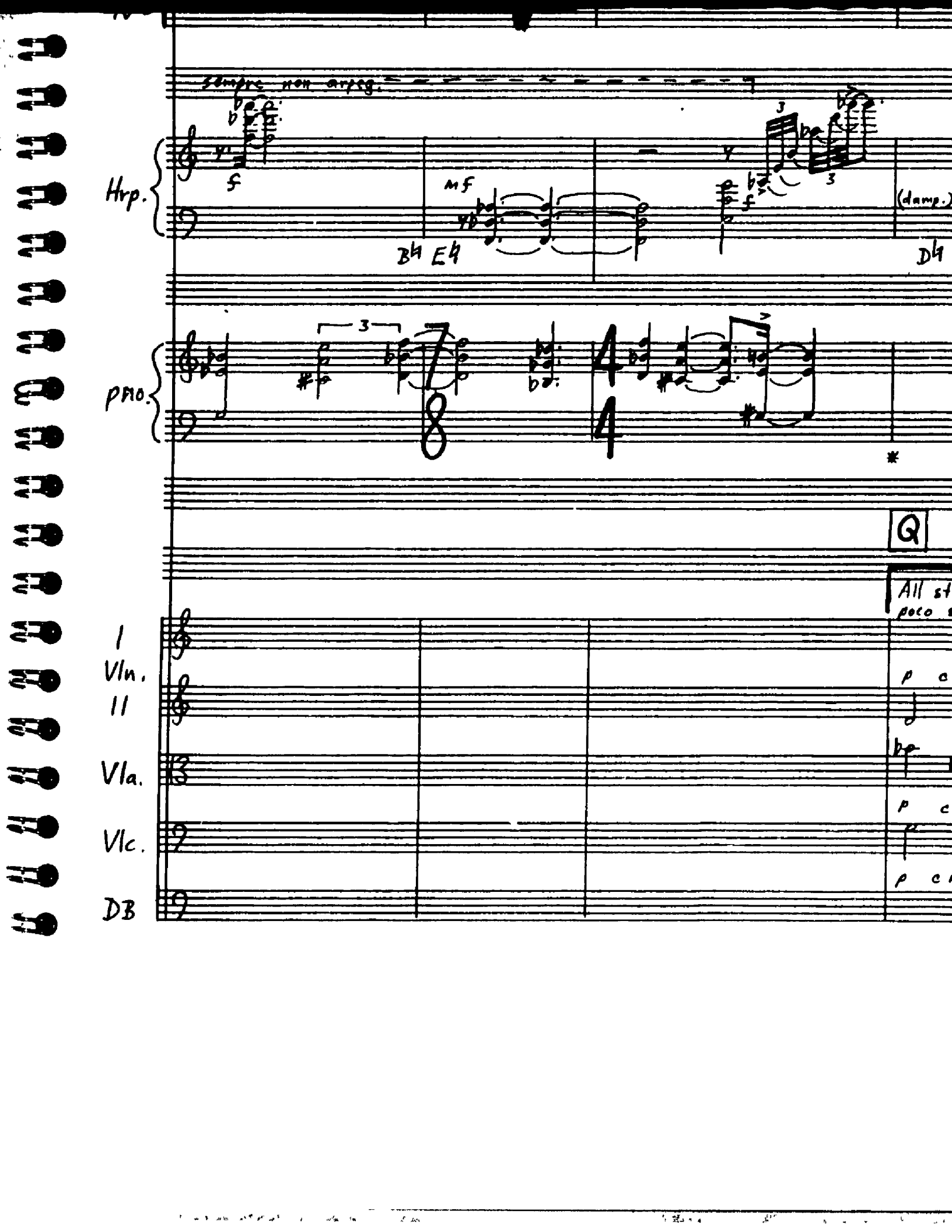


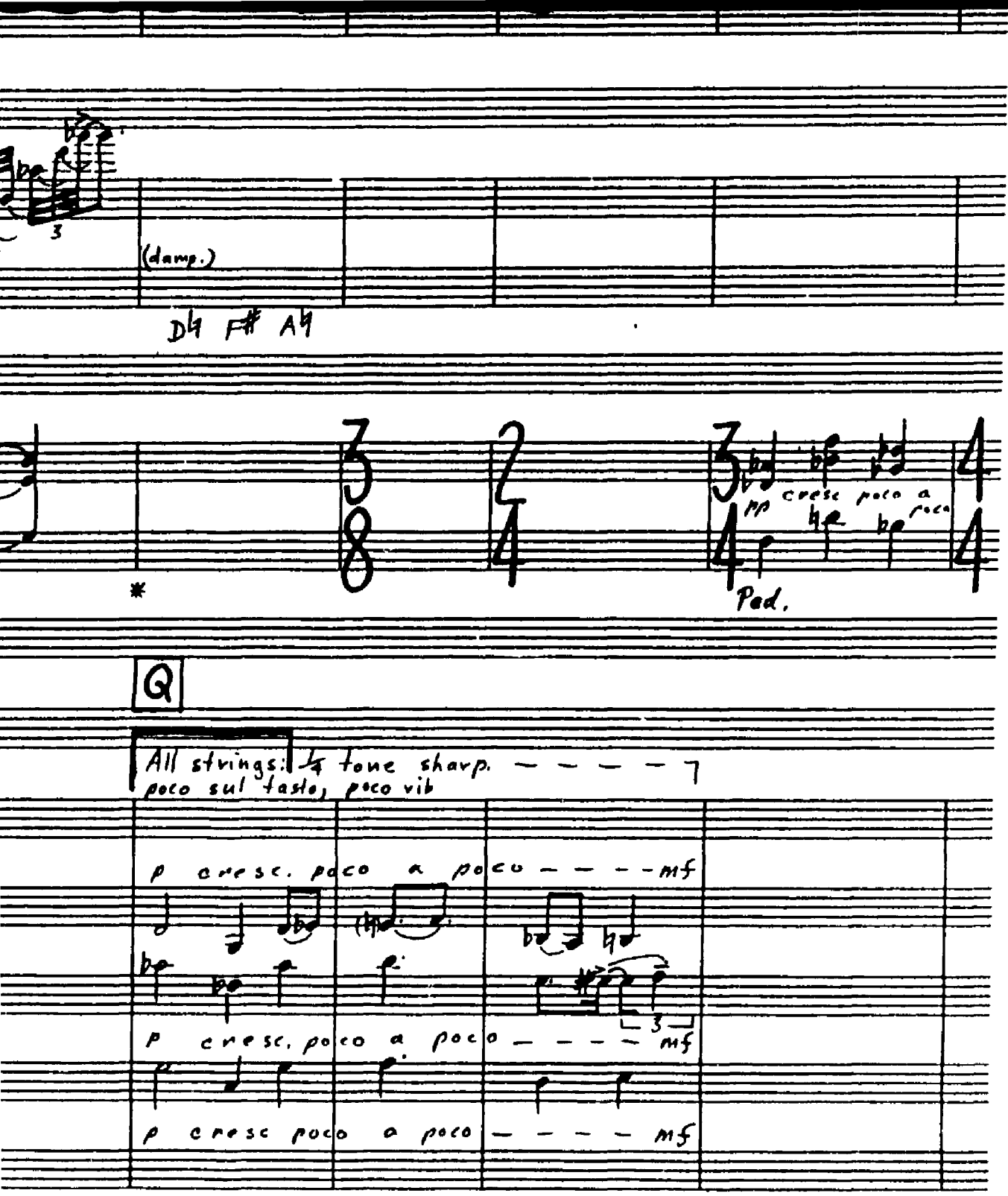

IV
mf
f
Hrp.
f
ff
Gb
Gb
Gb
G#
Pno.
mf
f
mf
I
Vln
mf
II
Vla
mf
Vlc
D.B.
mf
f

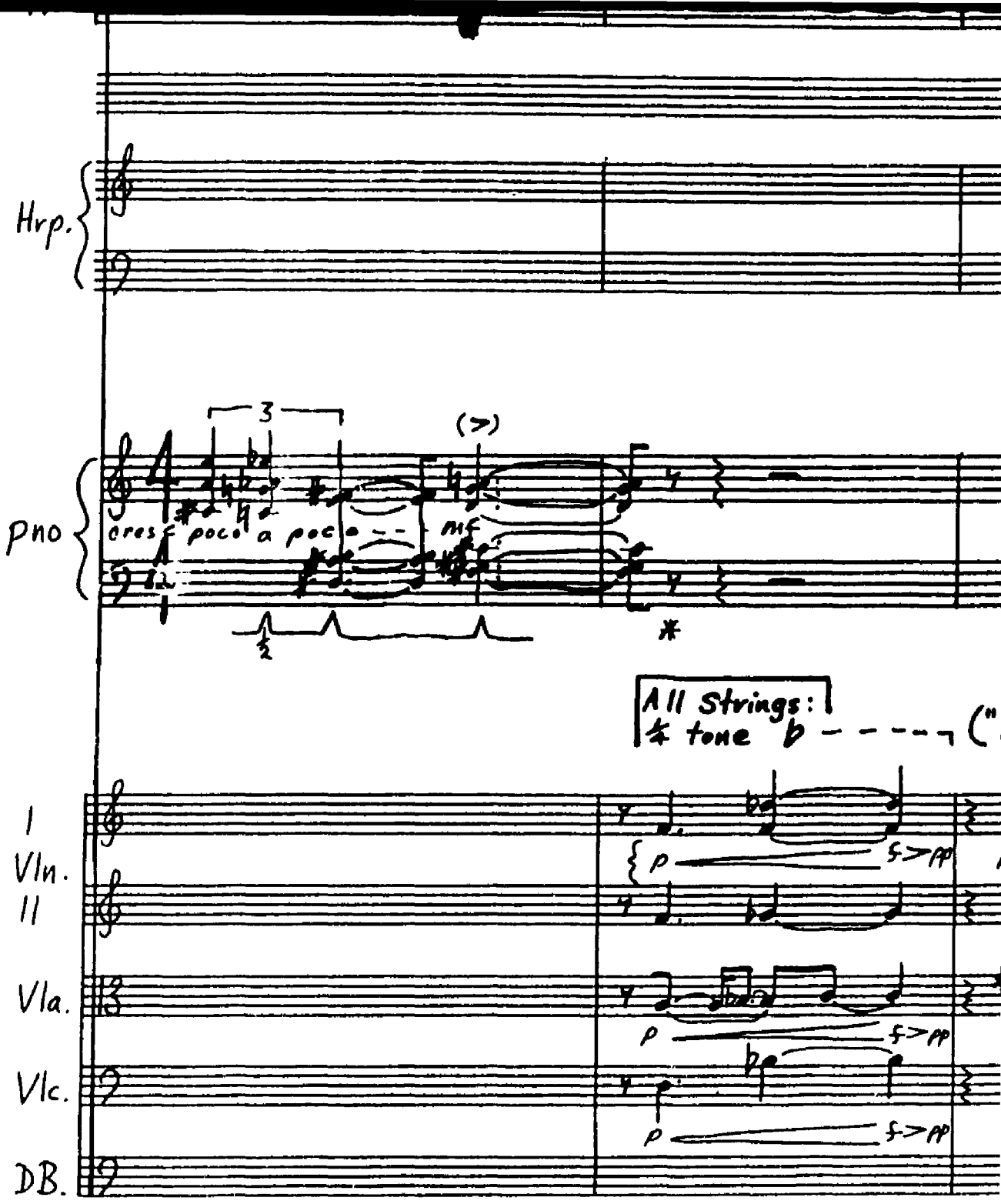

3
f
mp
ff
mf
cresc. poco a poco
G#
C♮
F#
f
mp
cresc poco a poco
Ped.
f
mp
cresc poco
a poco
f
mp
cresc
poco a poco
mp
cresc poco
a poco
f
mp
cresc. poco a poco
div.

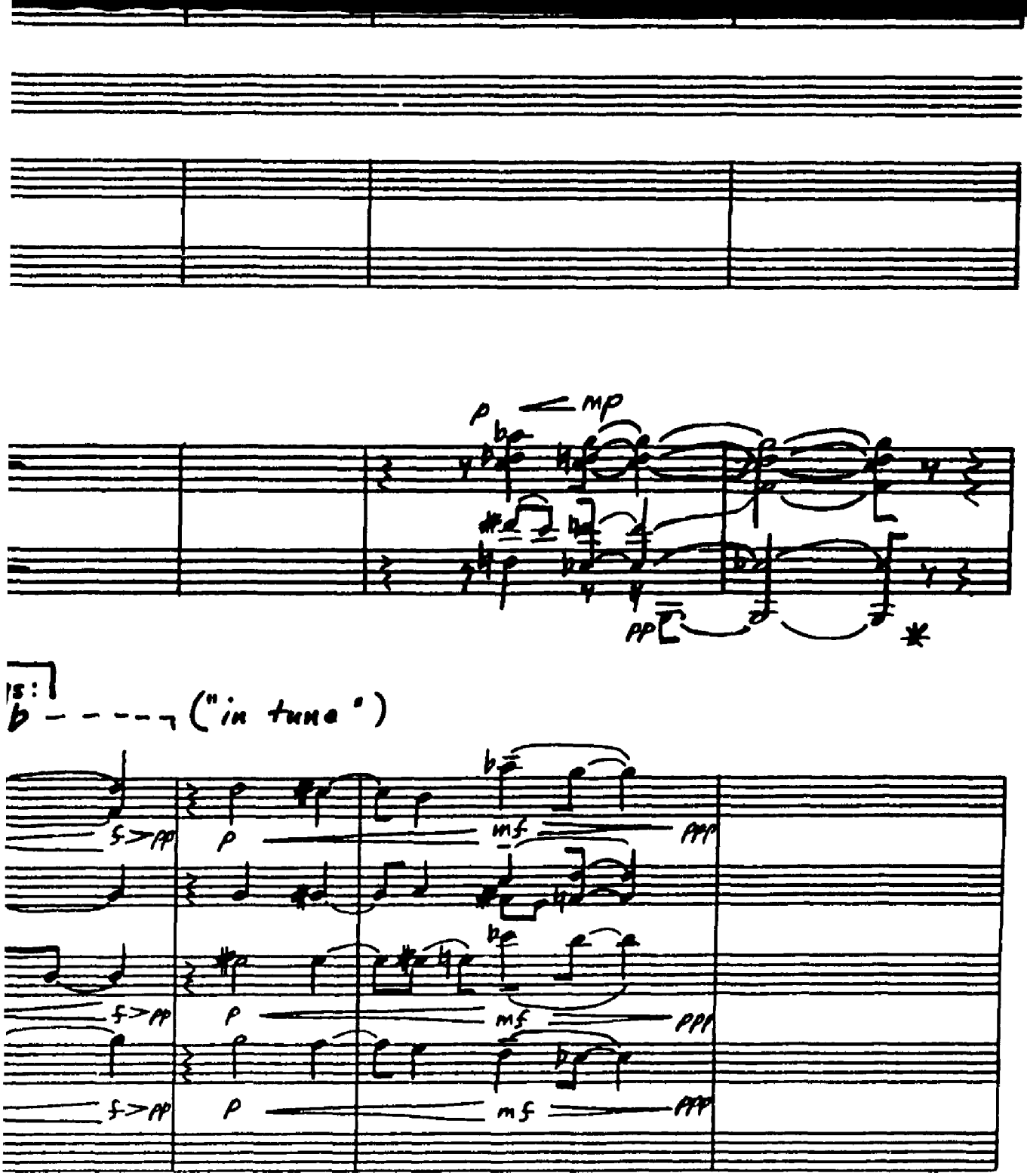

IV
f
Hrp.
ff
D♭ B♭ E♭ F♮ G♮ A♭
B♮
P
Pno
ff
Ped.
*
I
Vln
II
Vla
Vlc
DB.
ff
tutti
pp
mf
3
subito
pp

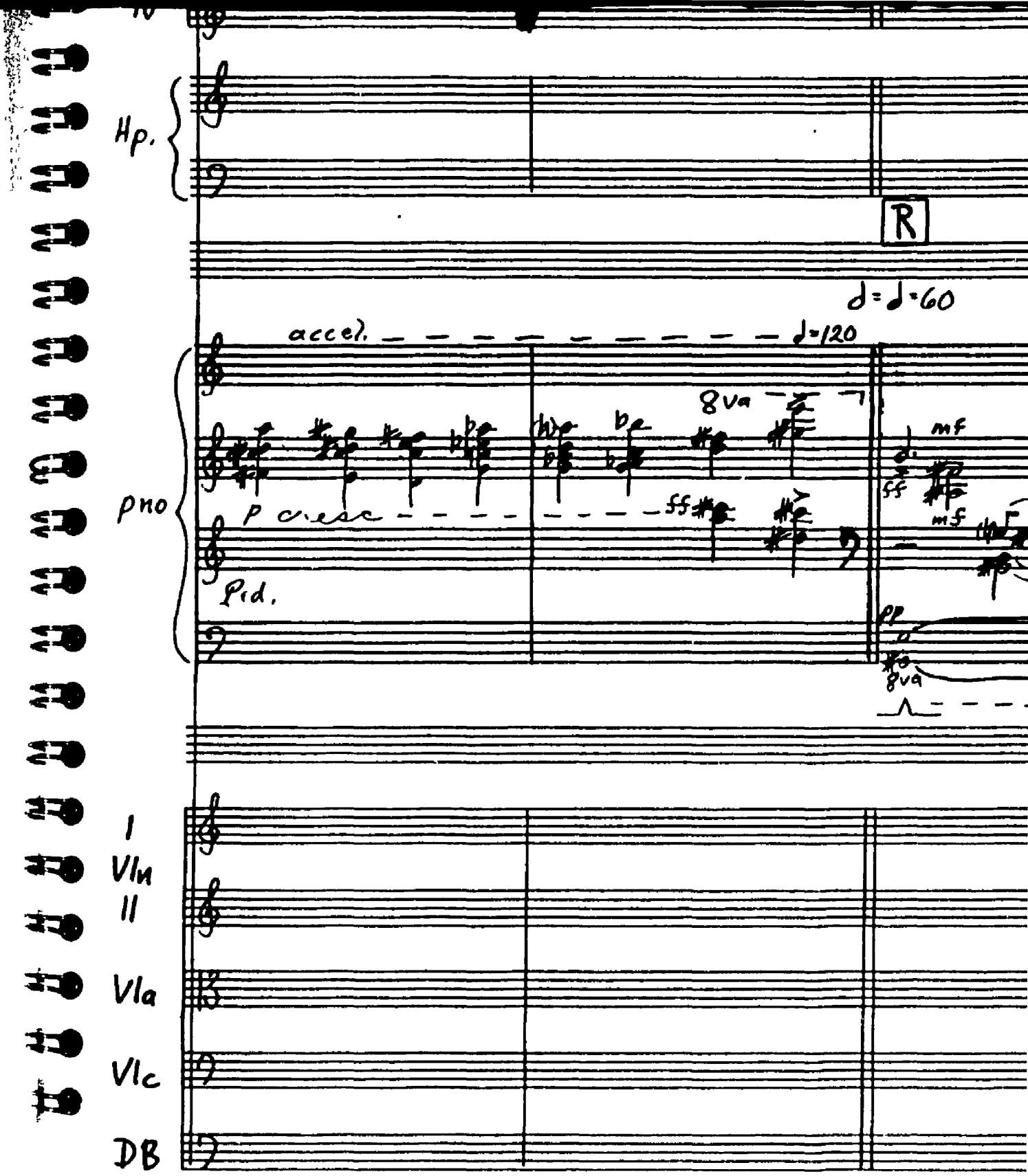

mf
P
ff
dim.
mp
*
div. a3
div. a2
mf
ff
ppp
div. a3
div. a2
mf
ff
ppp
div. a2
mf
ff
ppp
div. a2
unis
mf
ff
ppp
div. a2
mf
ff
ppp

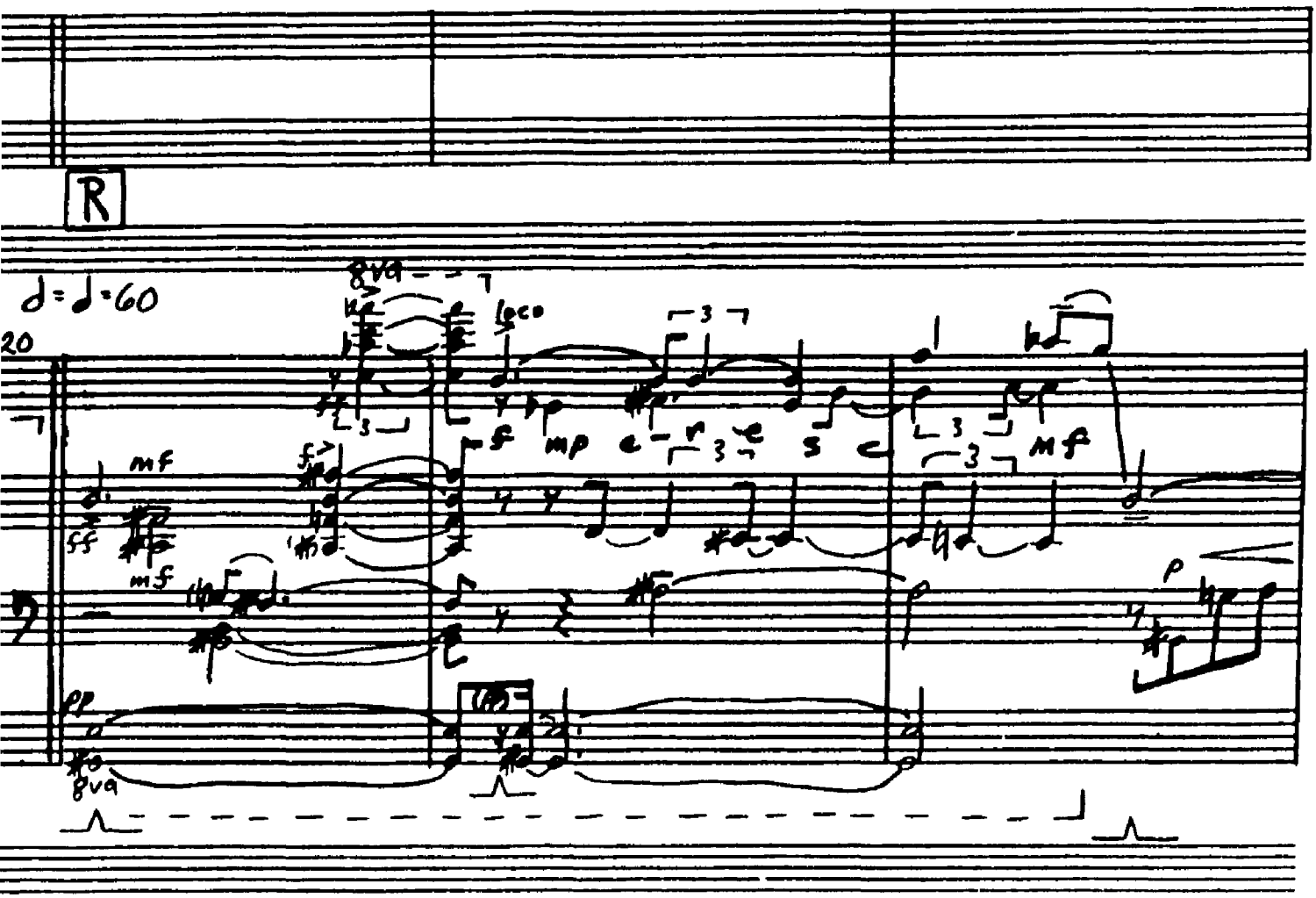

sempre non arpeg.
Hrp.
mf
B♮ E♮
(damp.)
D♮
pno.
Q
All st
poco
I
Vln.
II
Vla.
Vlc.
DB

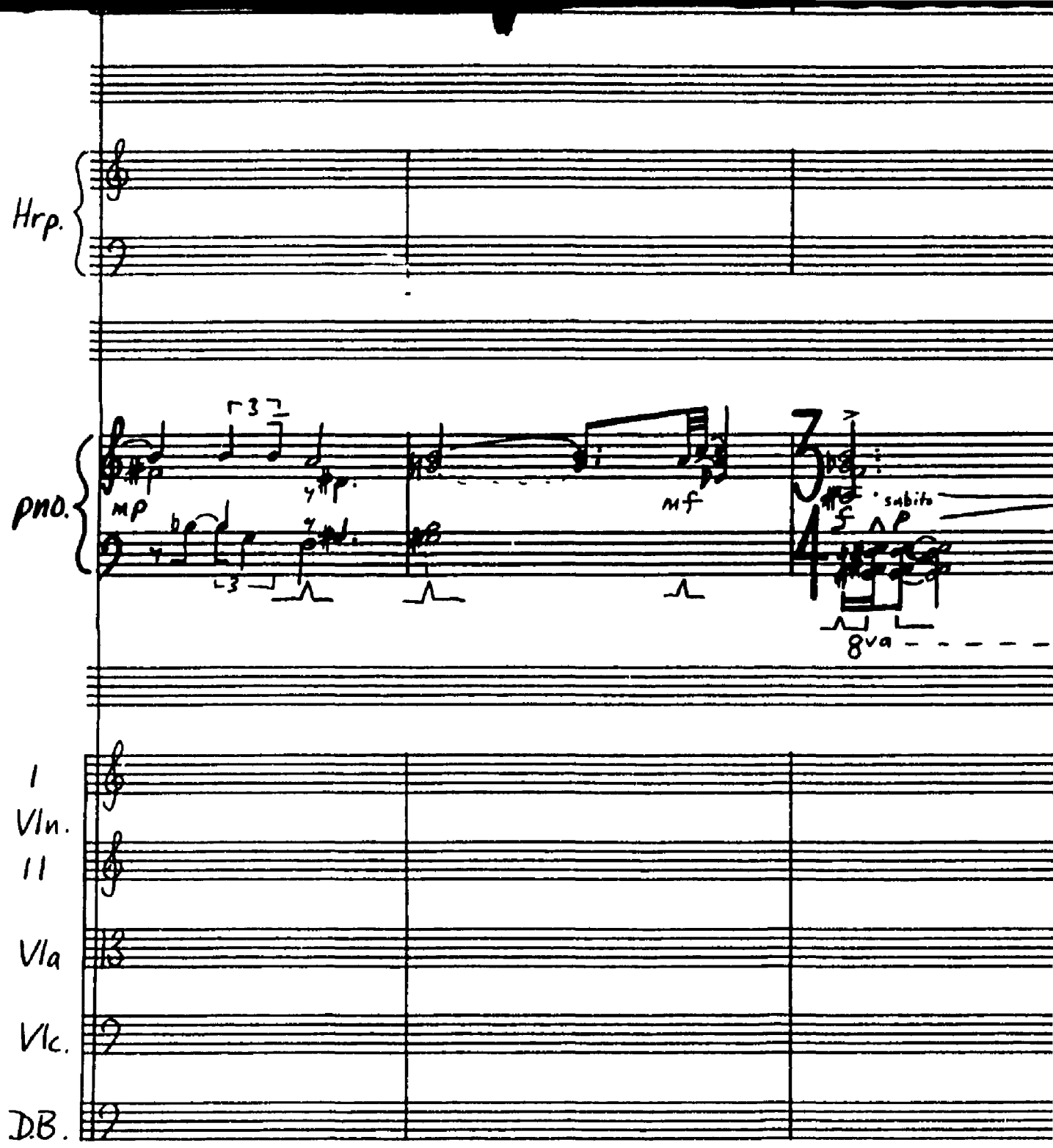

(damp.)
D♭ F♯ A♭
cresc poco a poco
Pad.
Q
All strings: ¼ tone sharp.
poco sul tasto, poco vib
p cresc. poco a poco mf
p cresc. poco a poco mf
p cresc poco a poco mf

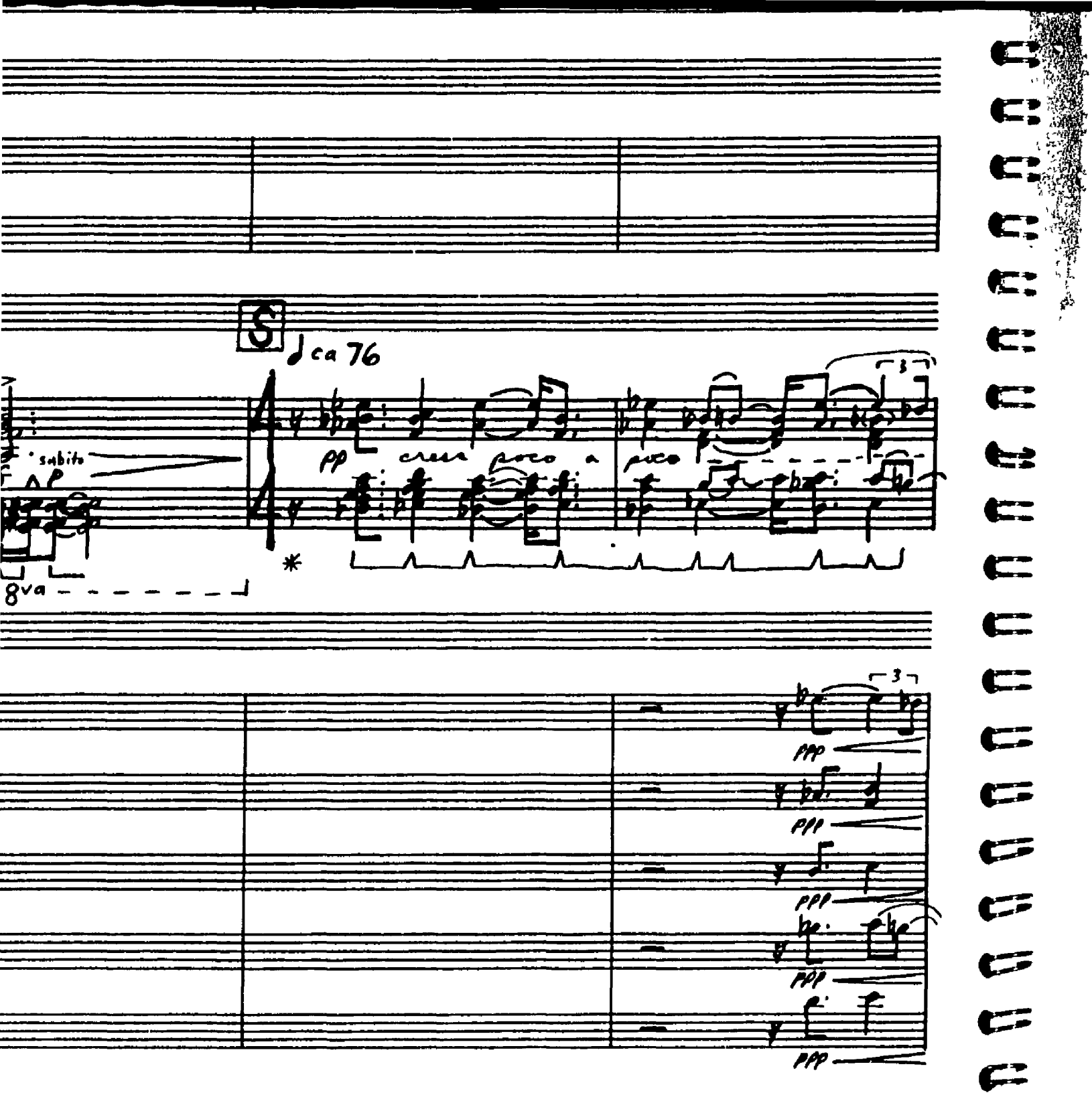

Hrp.
Pno
3
(>)
cresc poco a poco
mf
All Strings:
tone
I
Vln.
II
Vla.
Vlc.
DB.
p
f>pp

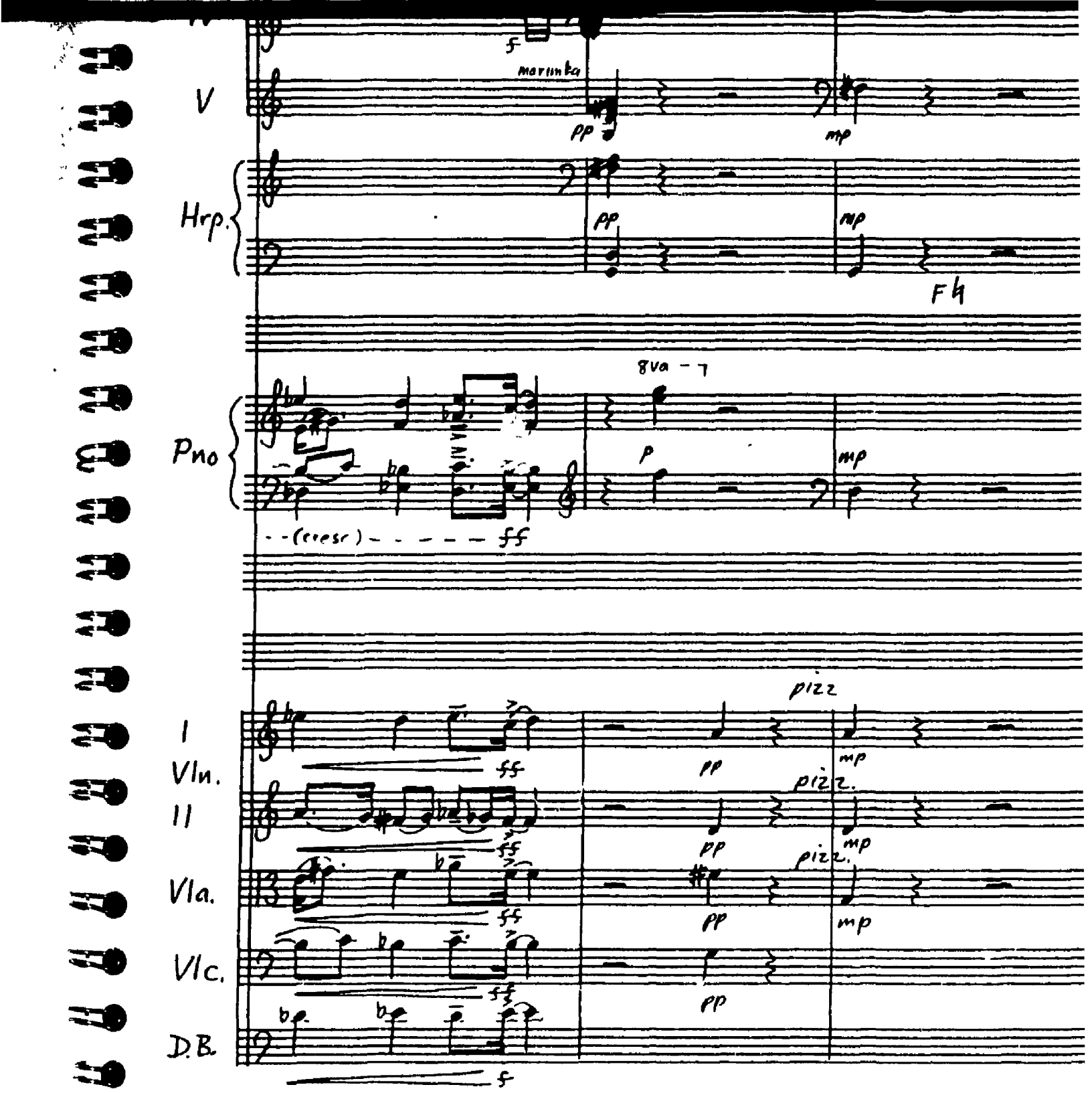

p
mp
pp
("in tune")
f>pp
p
mf
ppp


Hp.
R
♩=♩=60
accel.
♩=120
8va
mf
ff
p cresc
ff
mf
pno
Ped.
pp
8va
I
Vln
II
Vla
Vlc
DB


R
♩=♩·60
20
8va
loco
mf
ff
mf
f
mp
mf
p
pp
8va


Hrp.
pno.
mp
mf
sabito
8va
I
Vln.
II
Vla
Vlc.
D.B.


S
♩ ca 76
sabito
pp
cresc poco a poco
8va
ppp


V
marimba
pp
mp
Hrp.
pp
mp
F♮
8va
Pno
p
mp
(cresc)
ff
pizz
I
Vln.
ff
pp
mp
II
pizz.
ff
pp
mp
Vla.
pizz.
ff
pp
mp
Vlc.
ff
pp
D.B.
f

F4

15ma

f

Ped.

All strings:
non vib.
poco sul pont.

arco

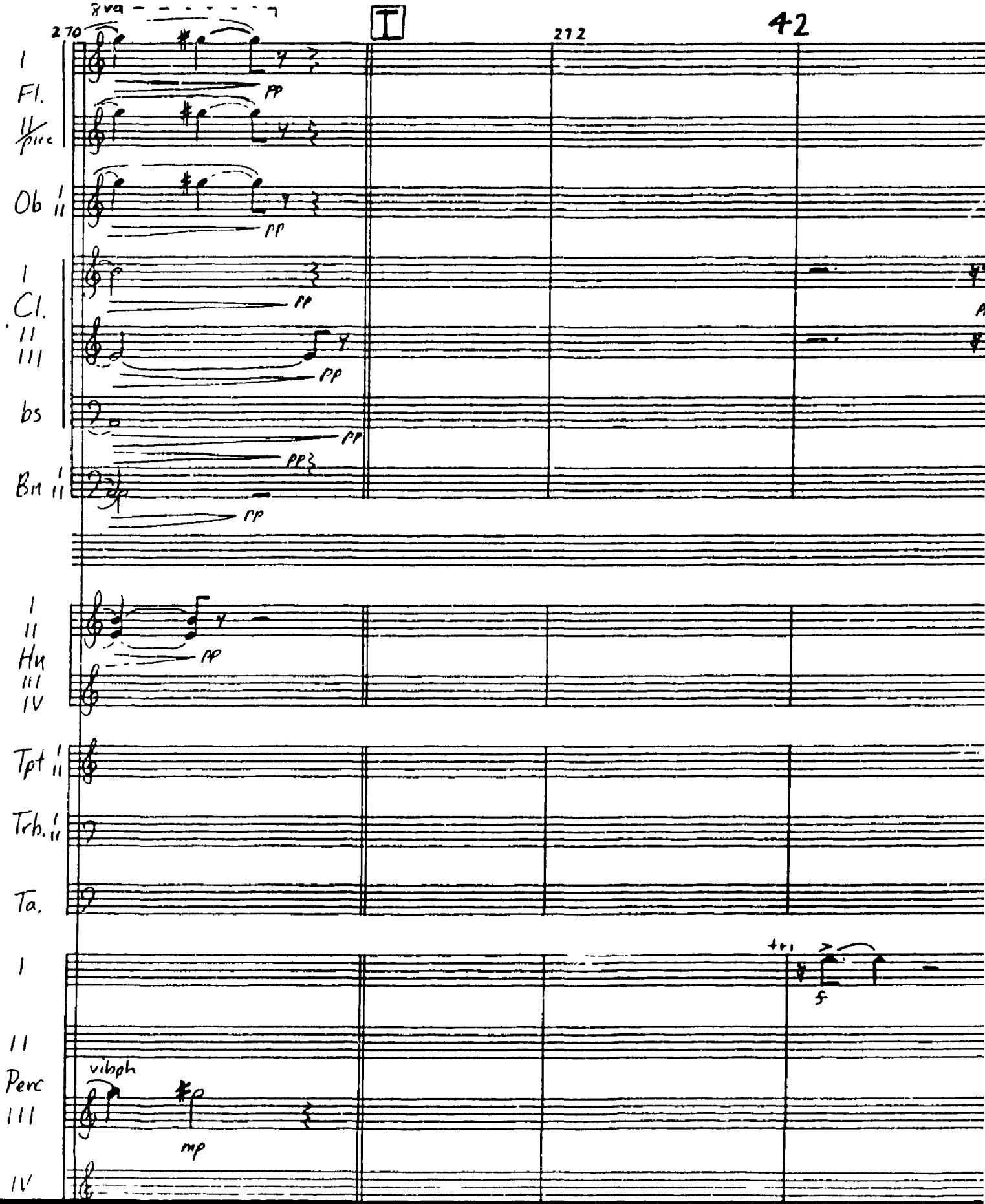
arco

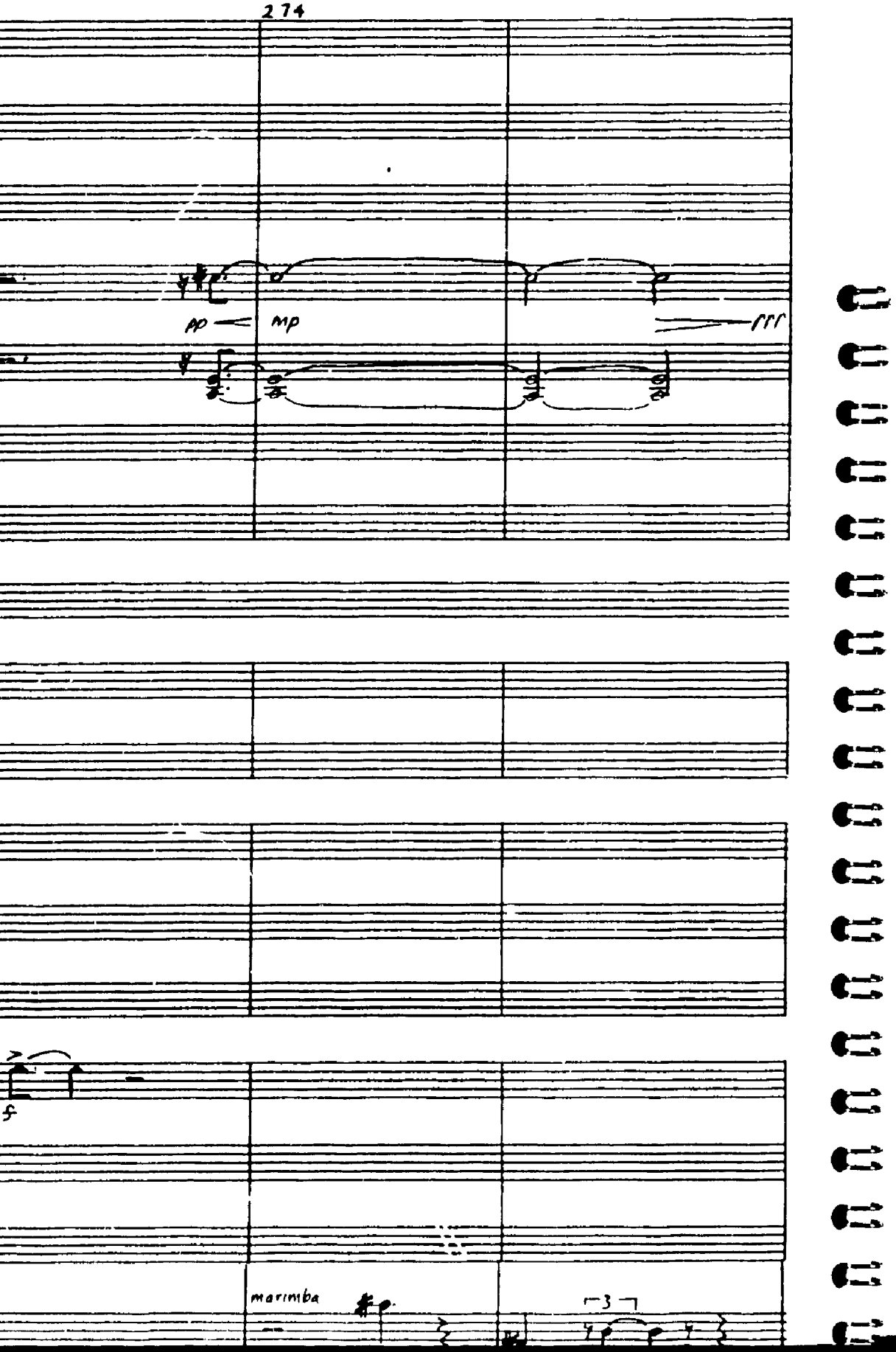
pp f

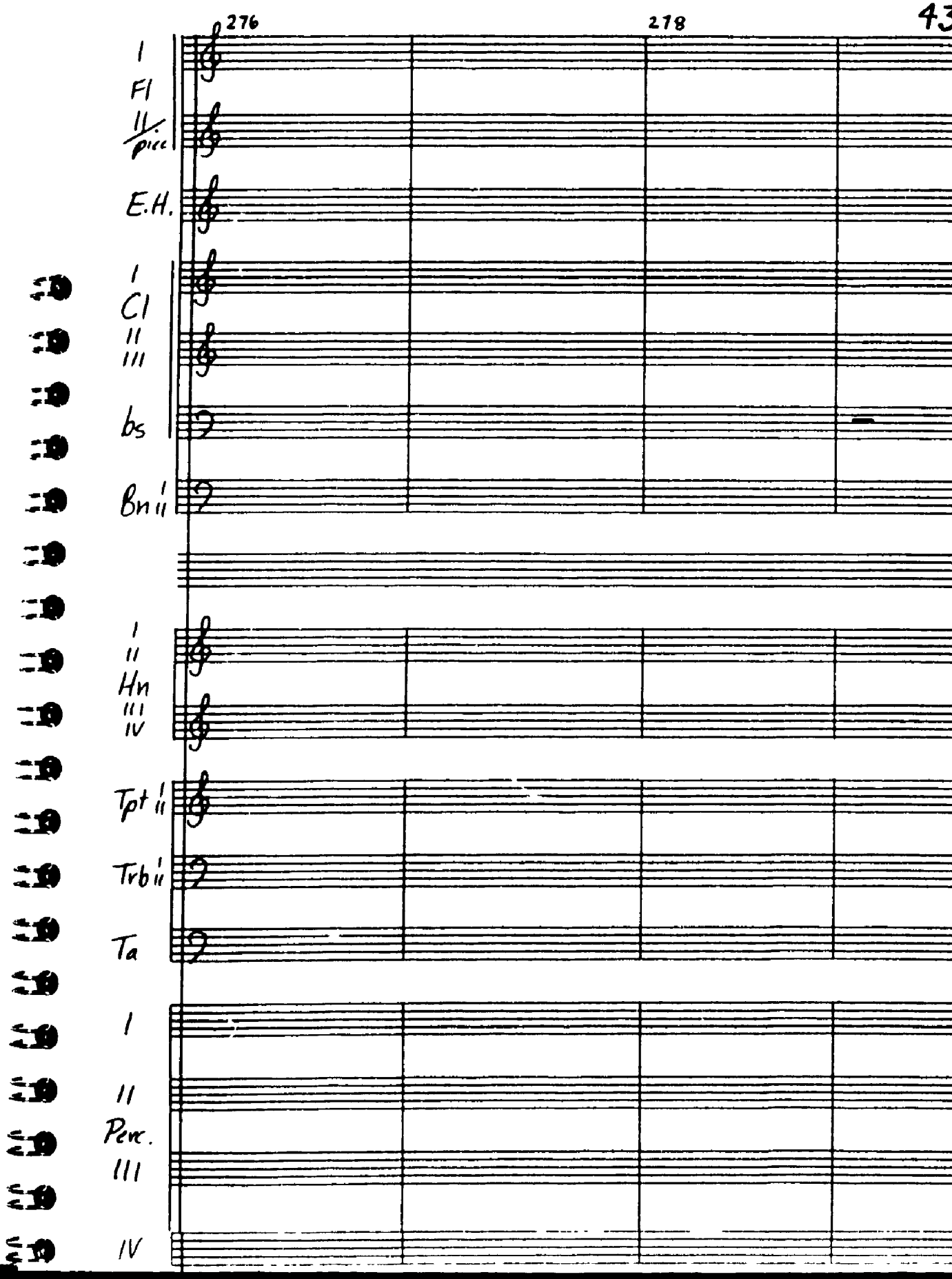
arco

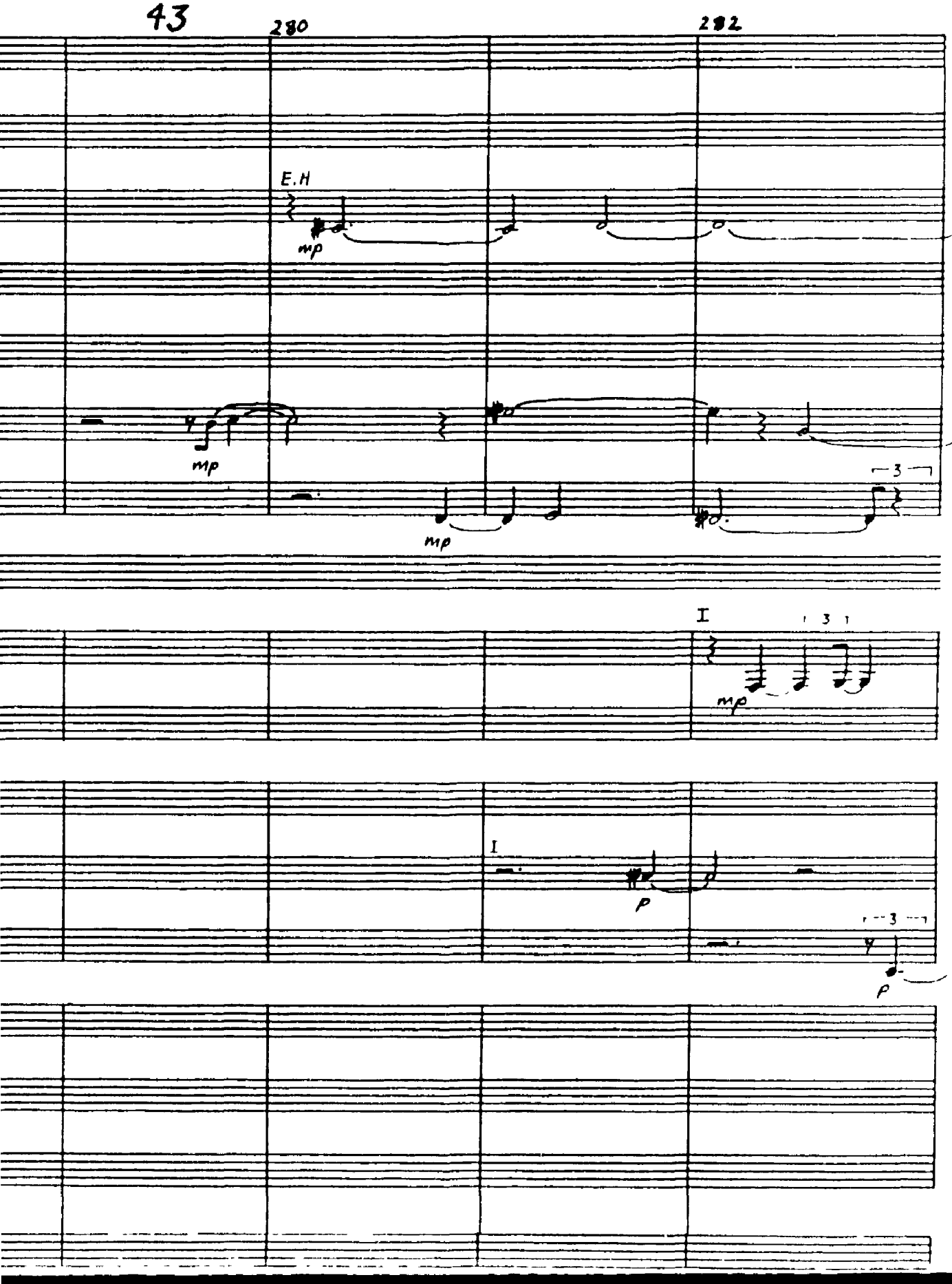
pp f

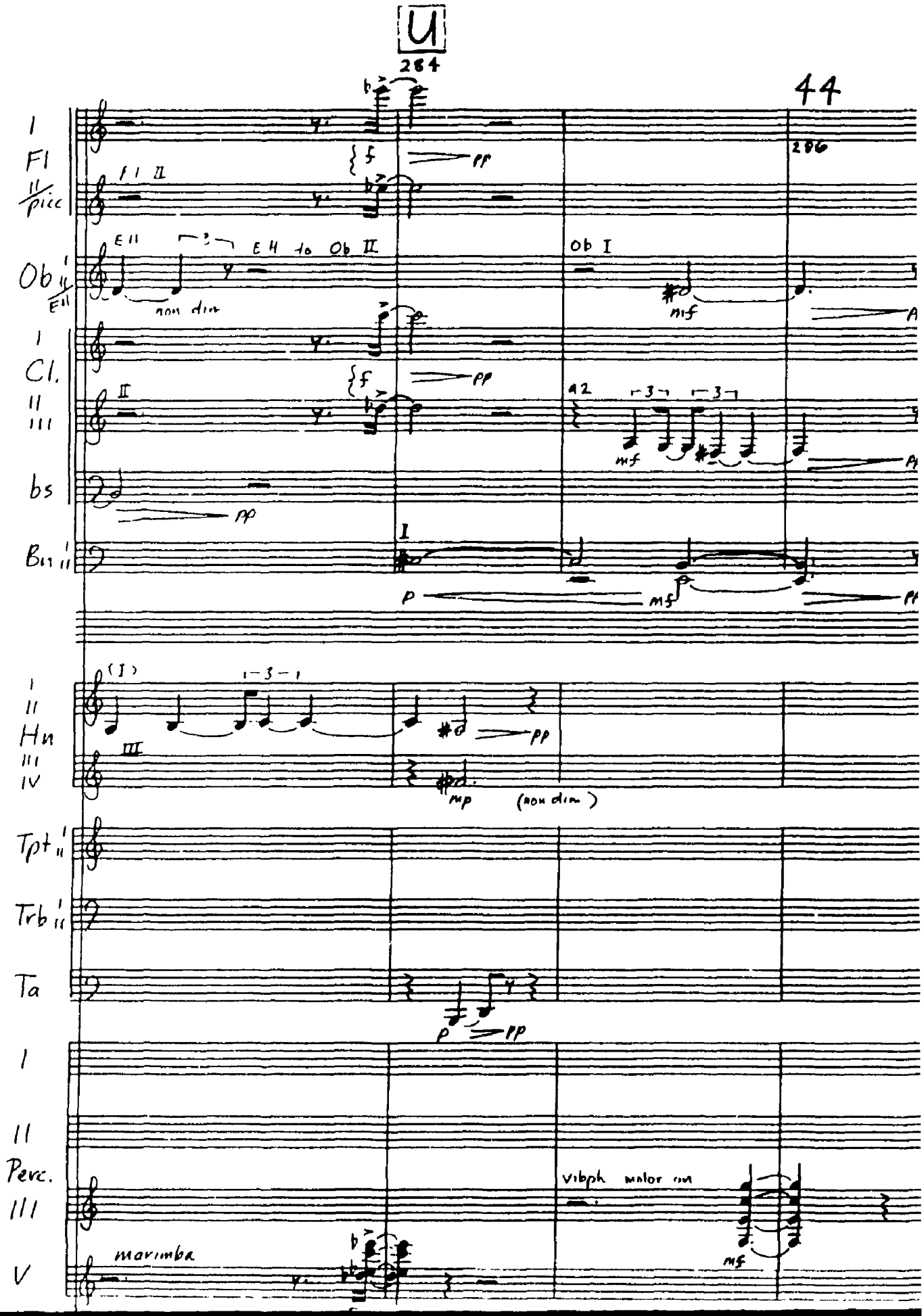
pp f

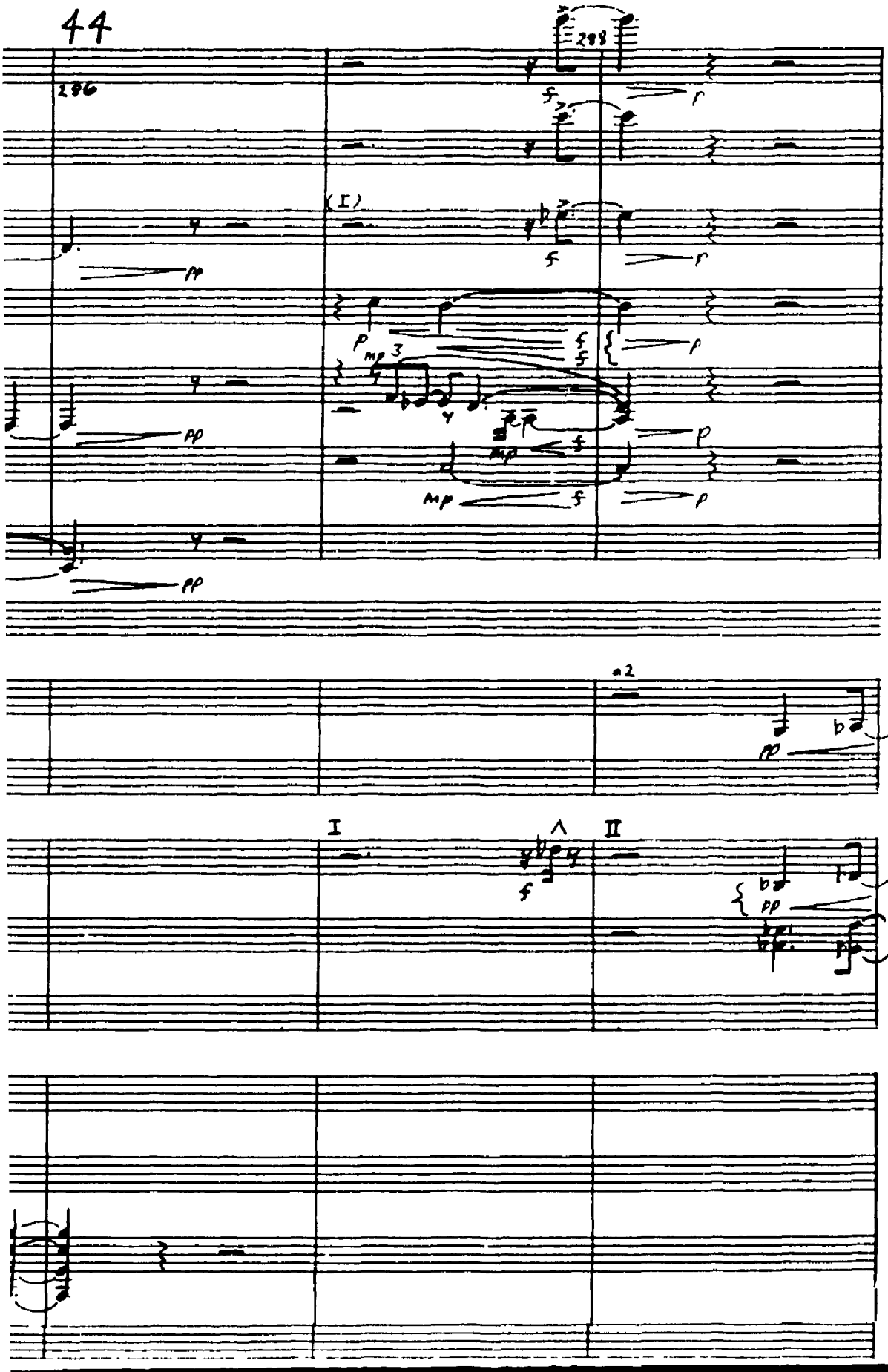

8va
270
272
I
Fl.
II/picc
Ob I/II
I
Cl.
II
III
bs
Bn I/II
pp
I
II
Hn
III
IV
Tpt I/II
Trb. I/II
Tu.
I
II
Perc
III
IV
vibph
mp
tr
f

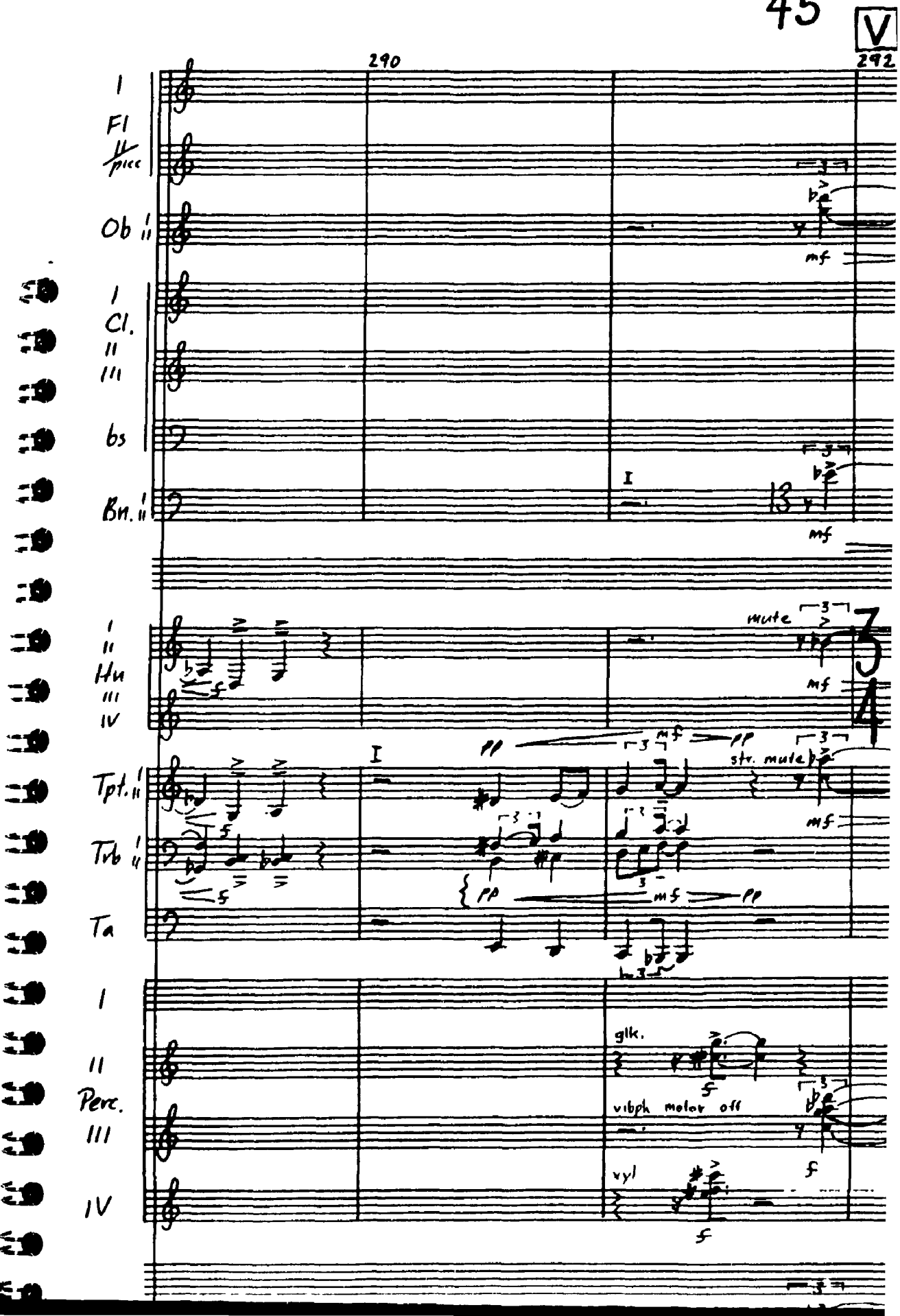

pp
mp
fff
f
marimba
3

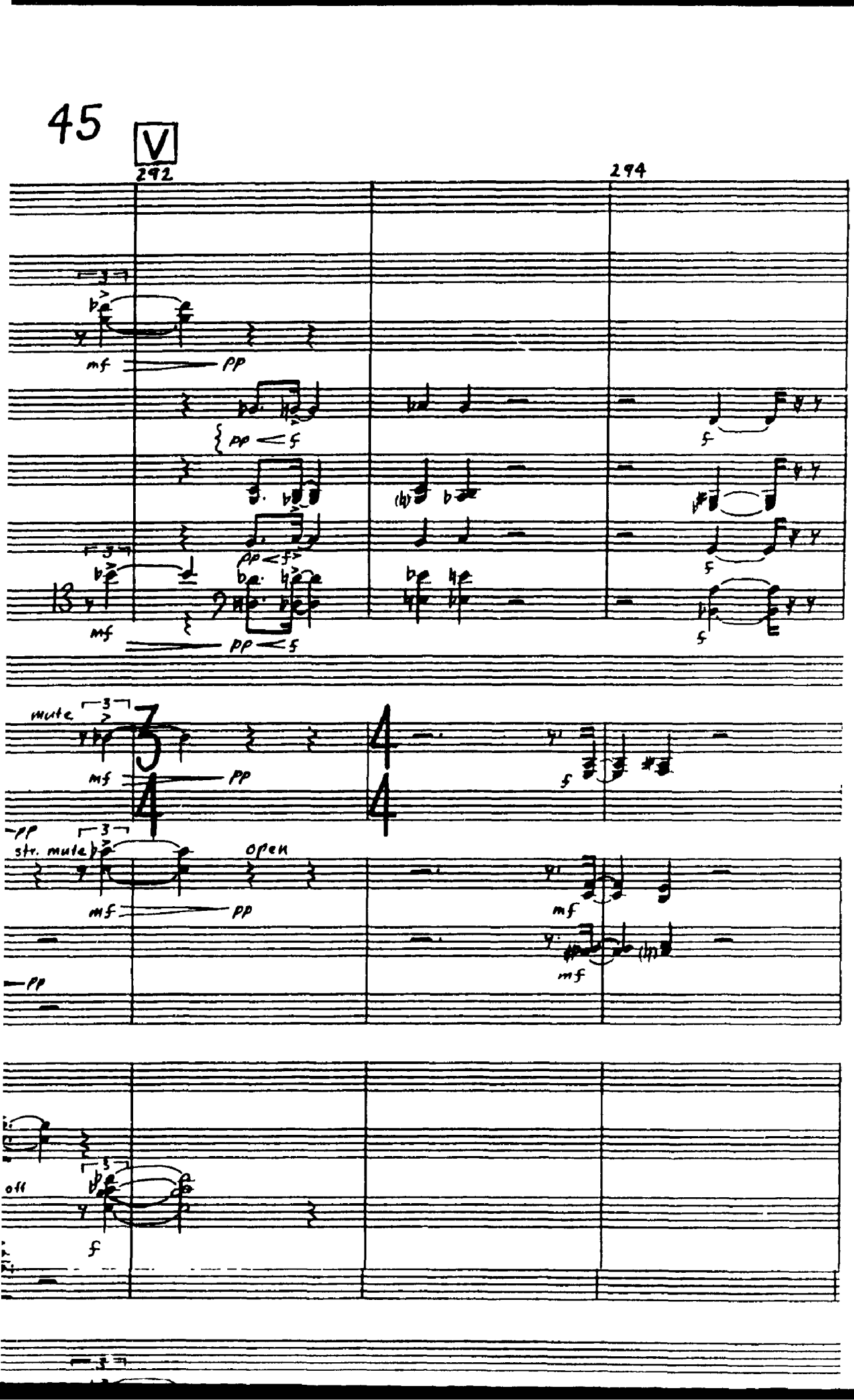

276
278
43
I
Fl
II/picc
E.H.
I
Cl
II
III
bs
Bn I II
I
II
Hn
III
IV
Tpt I II
Trb I II
Ta
I
II
Perc.
III
IV

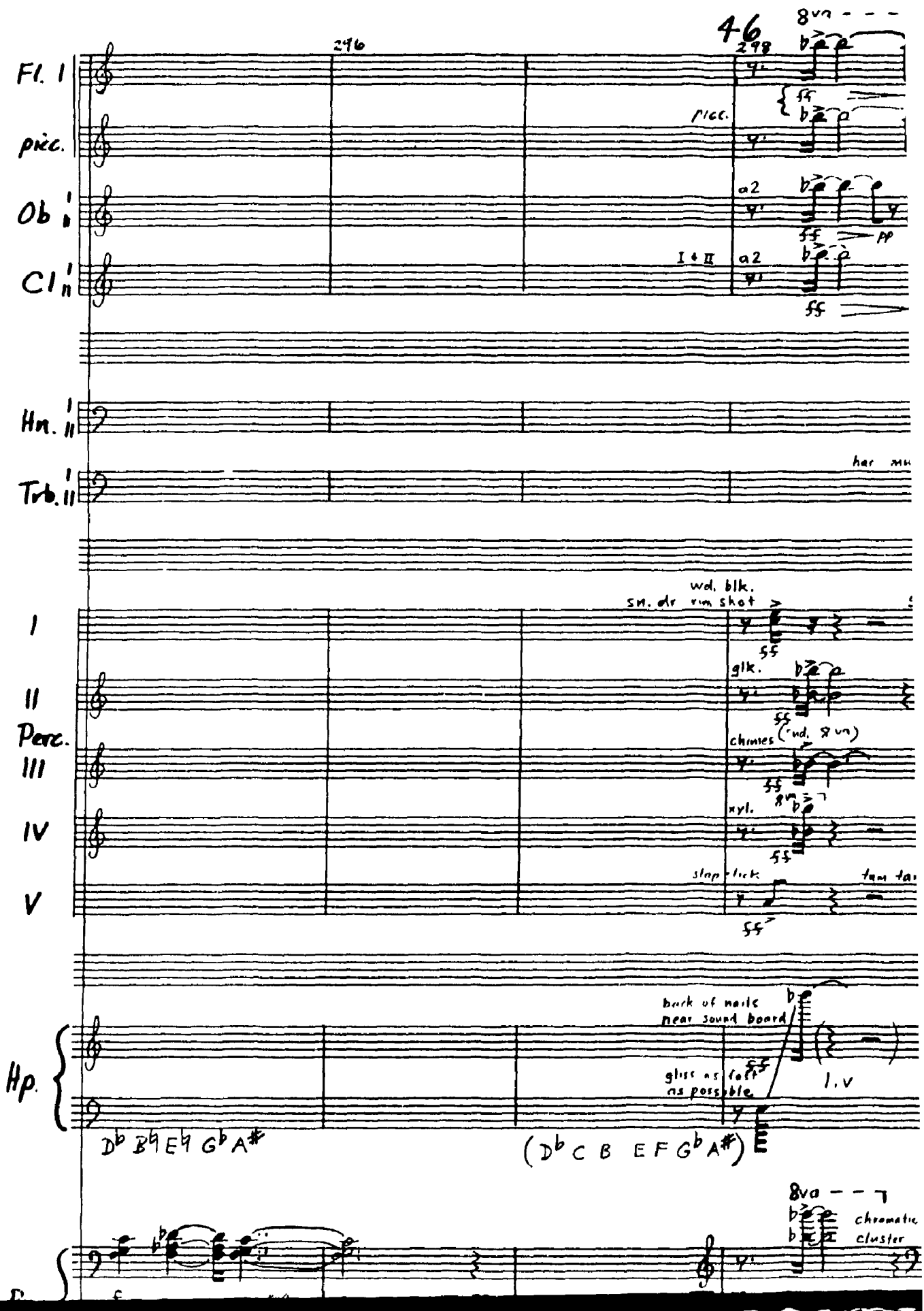

280
282
E.H
mp
mp
mp
3
I
3
mp
I
p
3
p

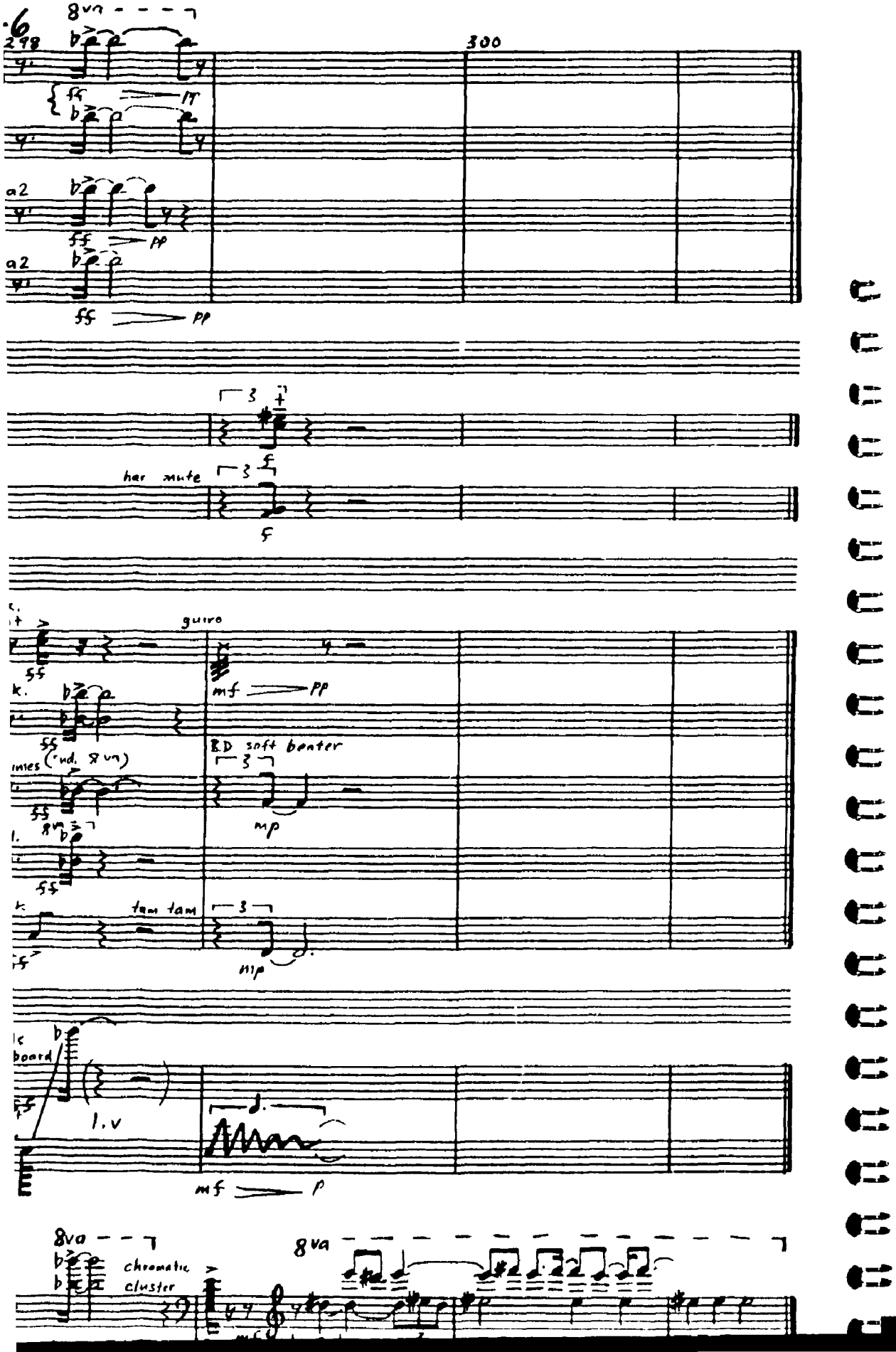

U
284
286
Fl
picc
Ob
Cl.
bs
Bn
Hn
Tpt
Trb
Ta
Perc.
Ob I
E H to Ob II
non dim
a2
(non dim)
vibph motor on
marimba

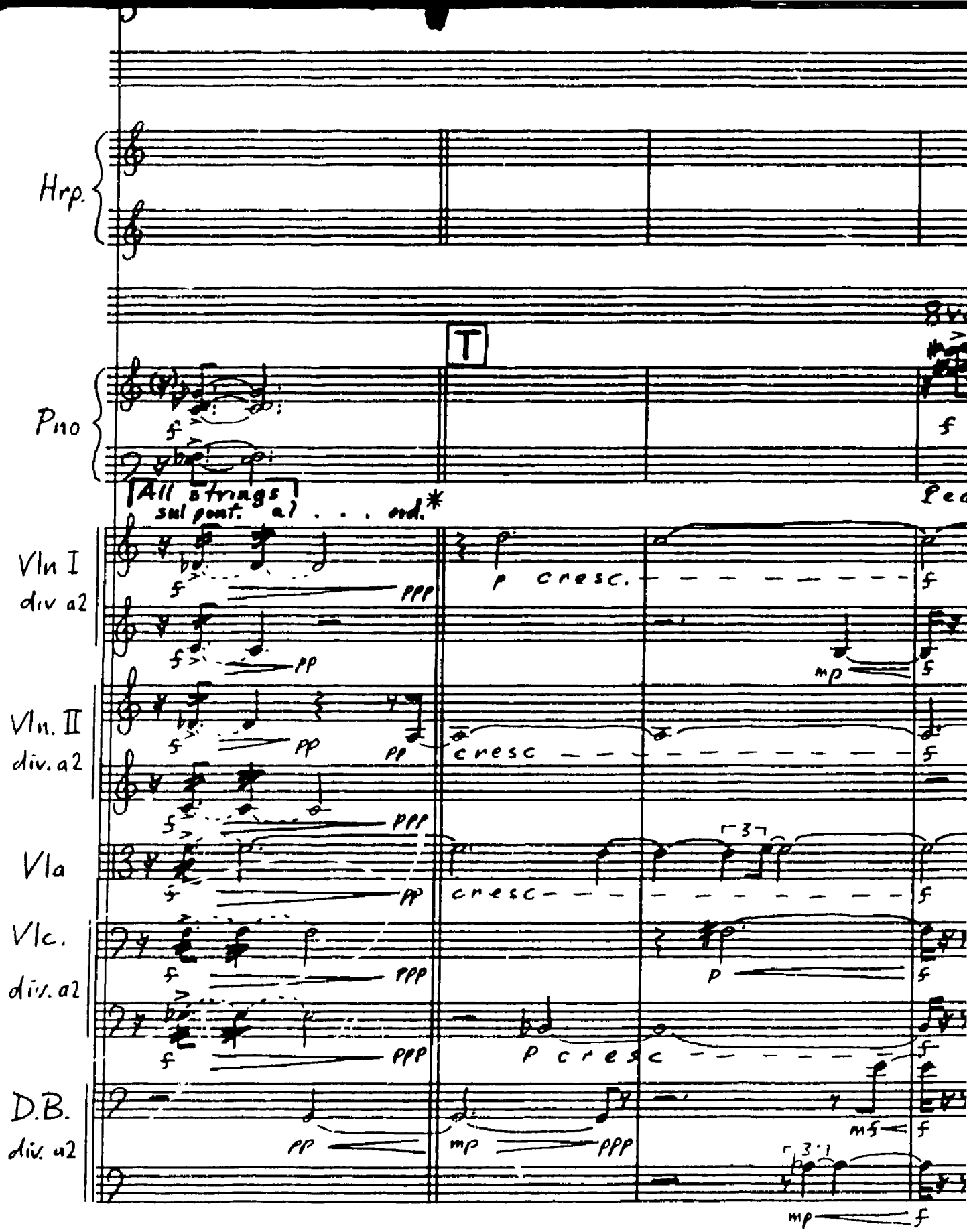

296
298
(I)
a2
I
II

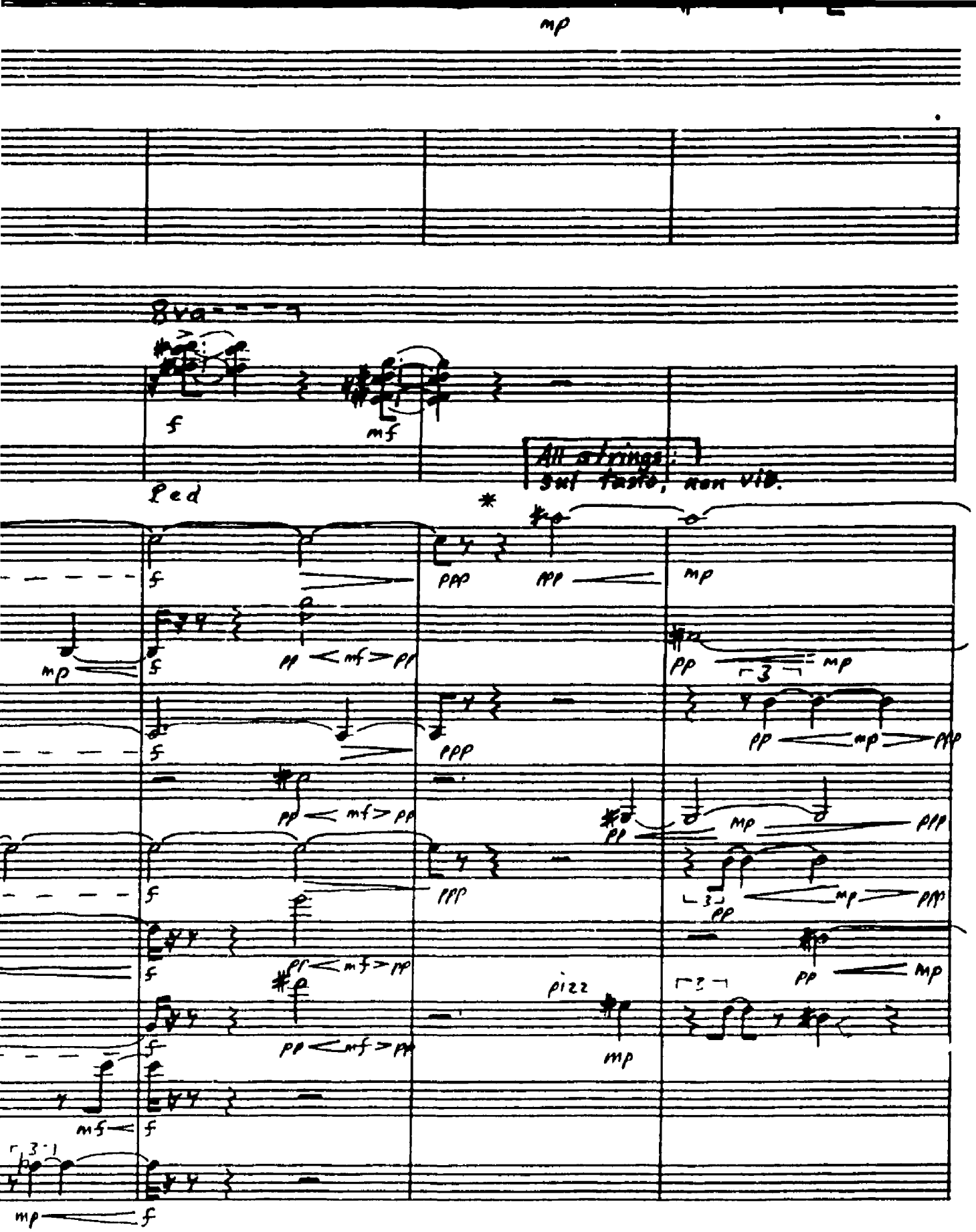

V
290
292
I
Fl
II
picc
Ob
I
II
mf
I
Cl.
II
III
bs
Bn.
I
II
mf
I
II
Hu
III
IV
mute
mf
Tpt.
I
II
pp
mf
pp
str. mute
mf
Trb
I
II
pp
mf
pp
Ta
I
II
Perc.
III
IV
glk.
vibph motor off
vyl

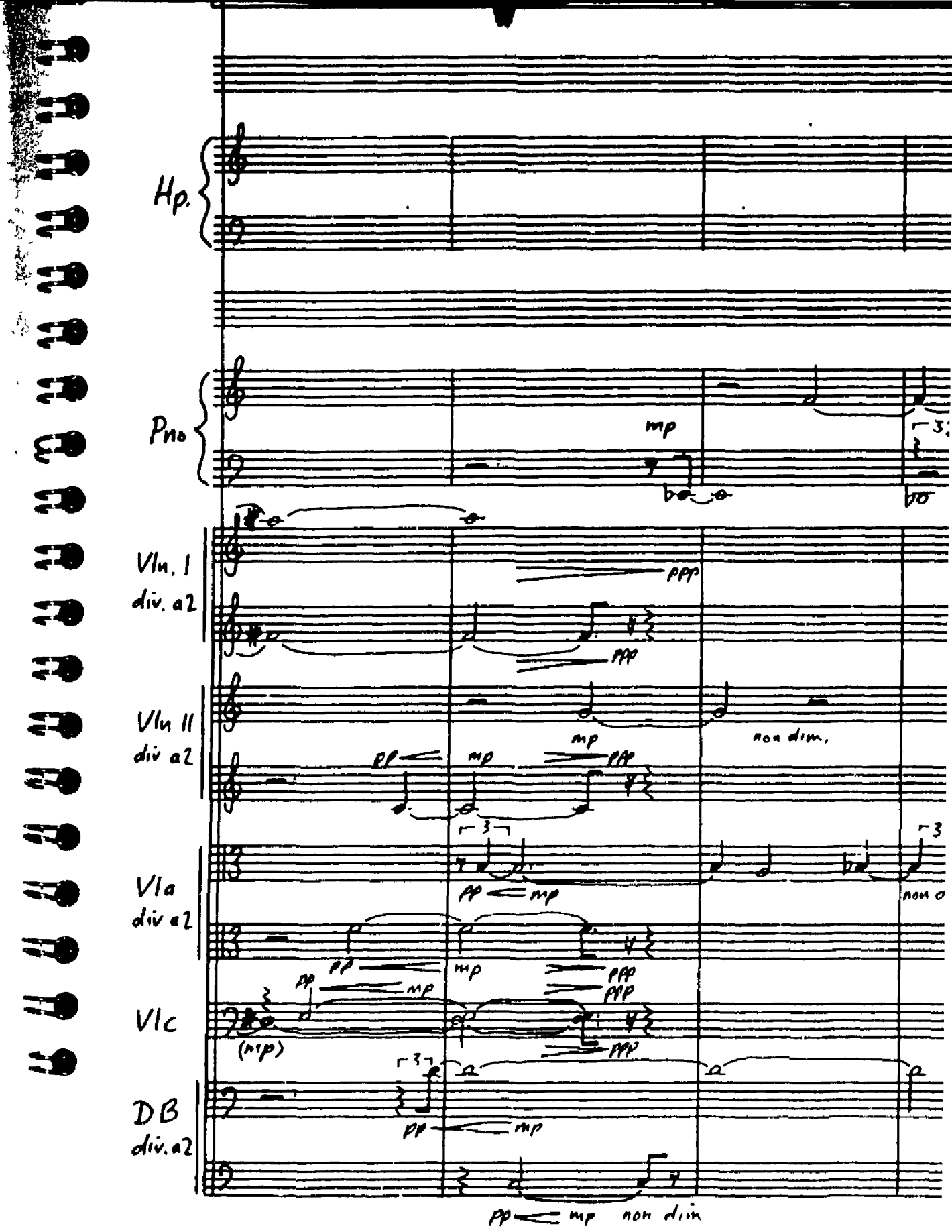

45
V
292
294
mf
pp
pp < f
f
mute
str. mute
open
off

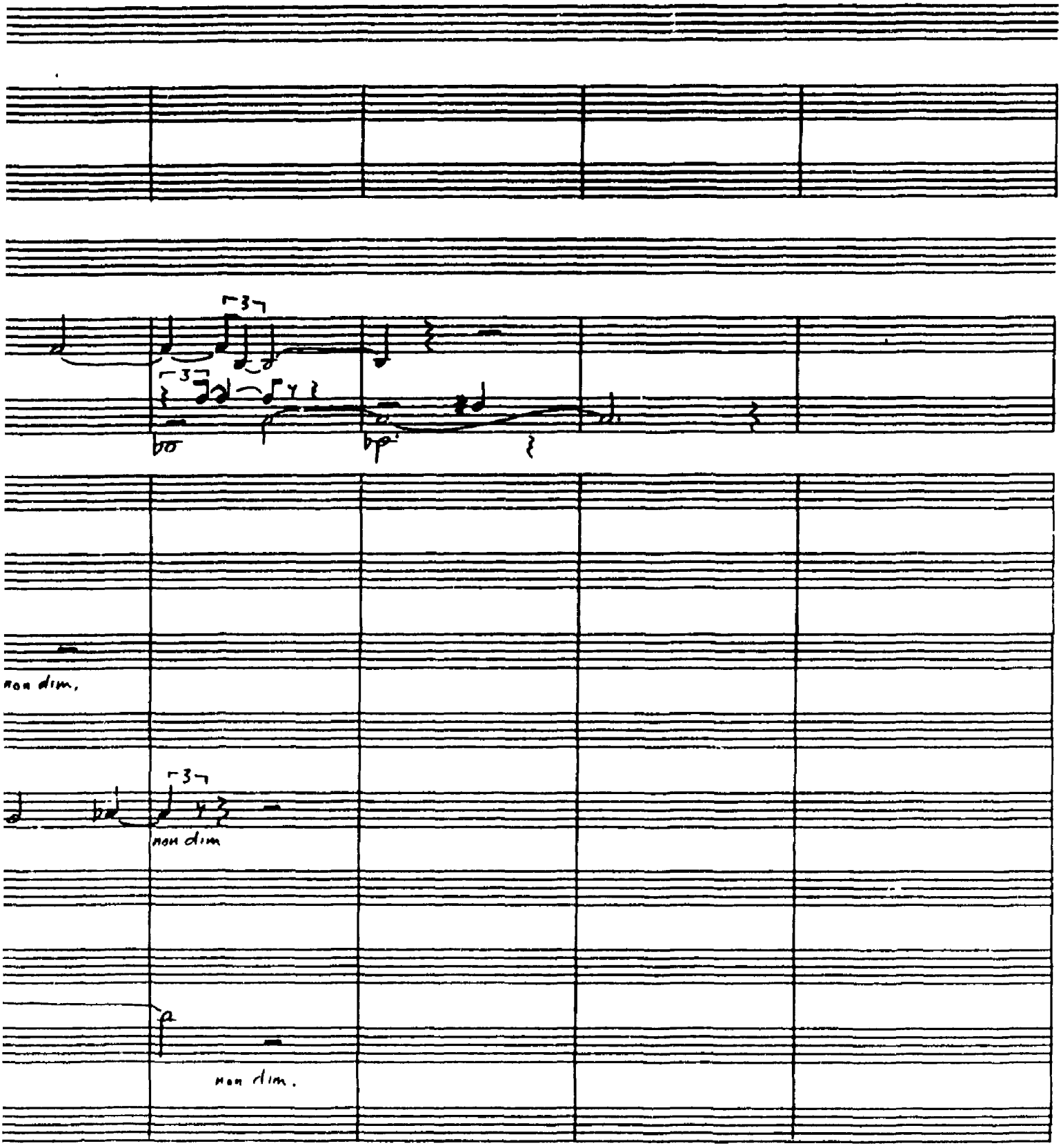

46
296
298
8va
Fl. I
picc.
Ob I II
Cl I II
a2
I + II
Hn. I II
Trb. I II
I
II
Perc.
III
IV
V
wd. blk.
sn. dr rim shot
glk.
chimes
xyl.
slap-tick
Hp.
back of nails near sound board
gliss as fast as possible
l.v
D♭ B♮ E♮ G♭ A♯
(D♭ C B E F G♭ A♯)
8va
chromatic cluster

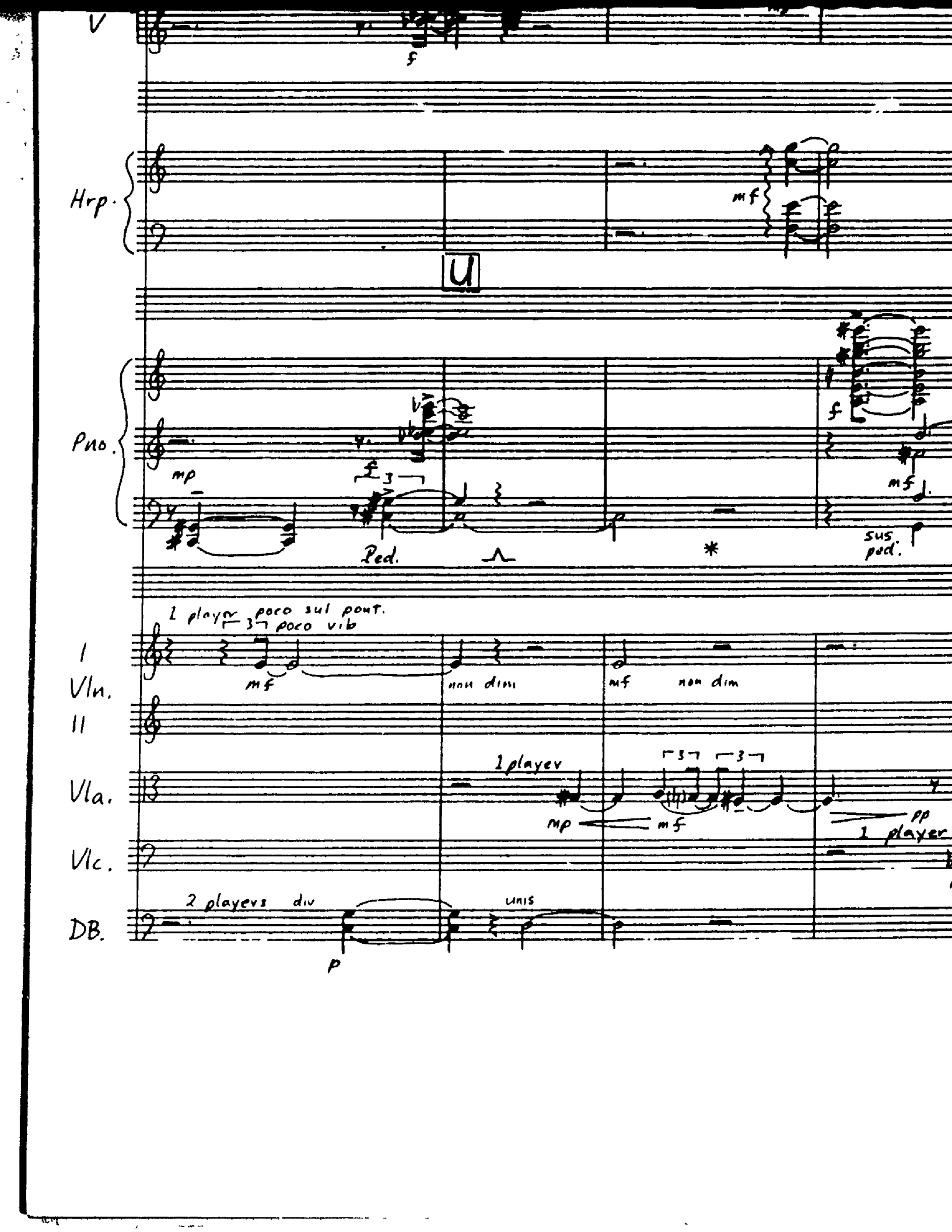

8va
298
300
ff
pp
a2
ff
pp
a2
ff
pp
f
hor mute
f
guiro
ff
mf
pp
ff
B.D soft beater
mp
ff
tam tam
mp
board
l.v
mf
p
8va
chromatic
cluster
8va

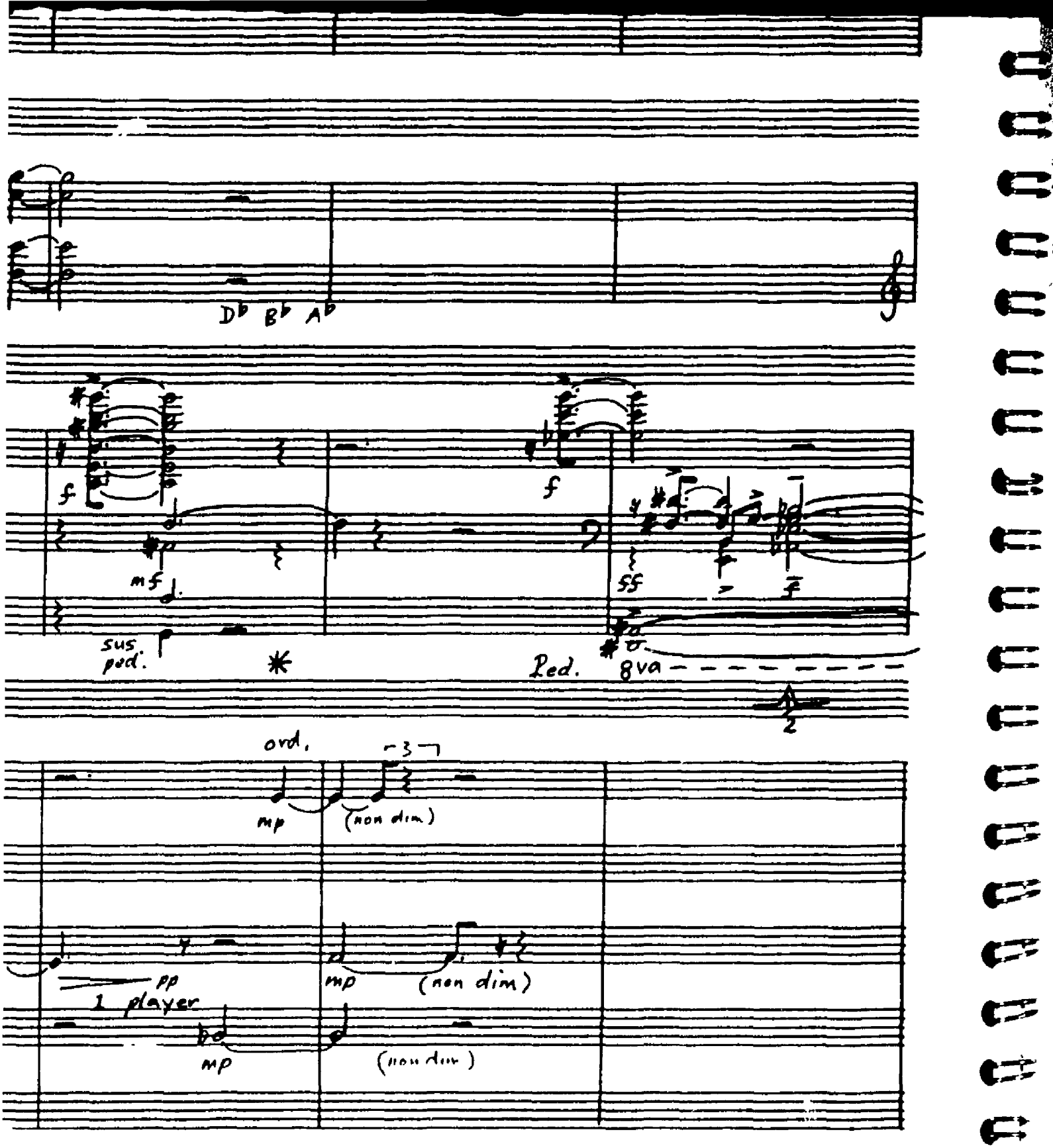

Hrp.
Pno
T
All strings
sul pont. a1 . . . ord.*
Vln I
div a2
Vln. II
div. a2
Vla
Vlc.
div. a2
D.B.
div. a2
cresc.
cresc
cresc
cresc

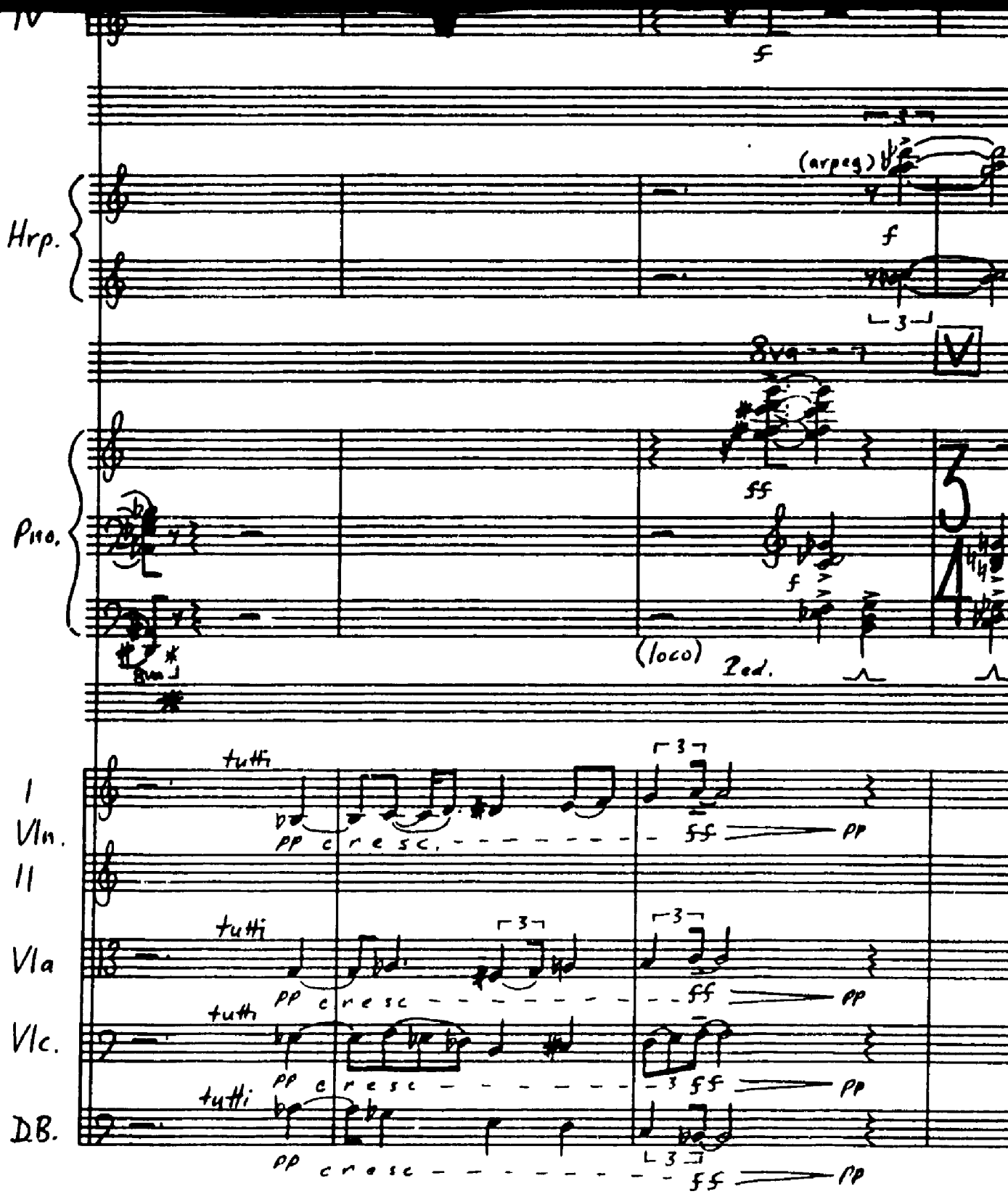

mp
8va
f
mf
All strings:
sul tasto, non vib.
Ped
ppp
pp
mp
pizz

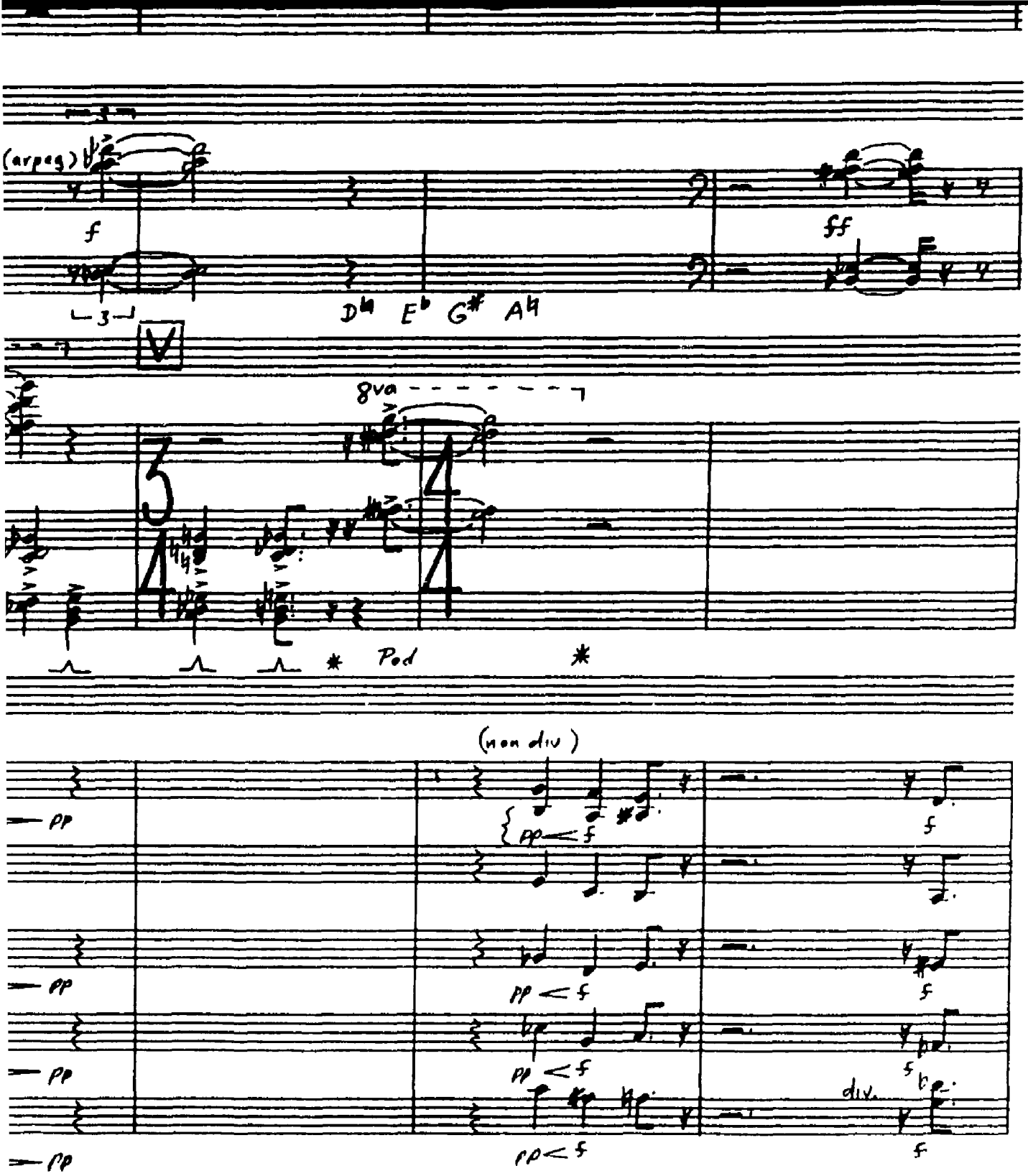

Hp.
Pno
mp
Vln. I
div. a2
ppp
ppp
Vln II
div a2
pp
mp
mp
ppp
non dim.
Vla
div a2
pp
mp
Vlc
(mp)
pp
mp
ppp
ppp
ppp
DB
div. a2
pp
mp
pp
mp
non dim

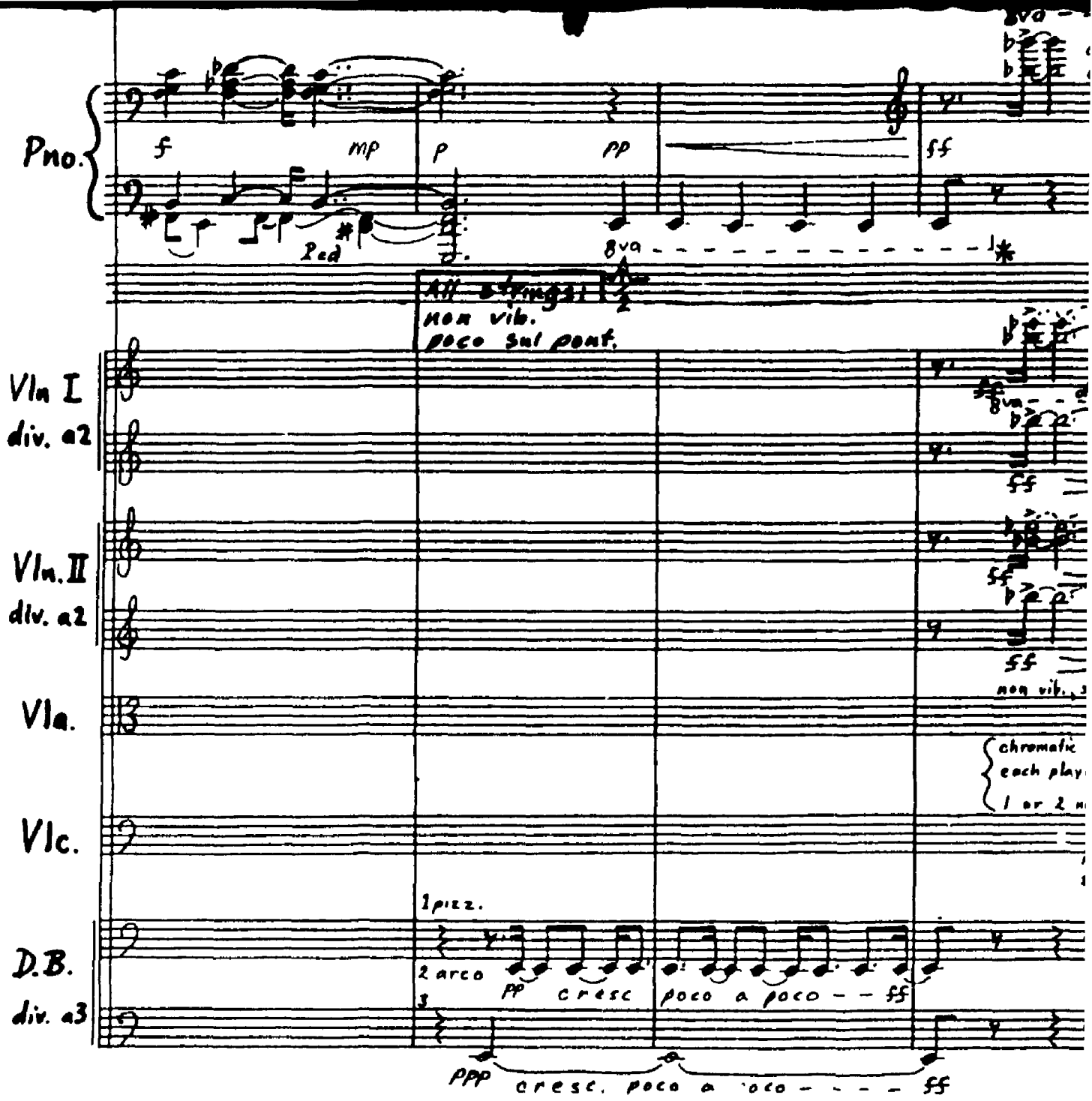

3
3
non dim.
non dim
non dim.

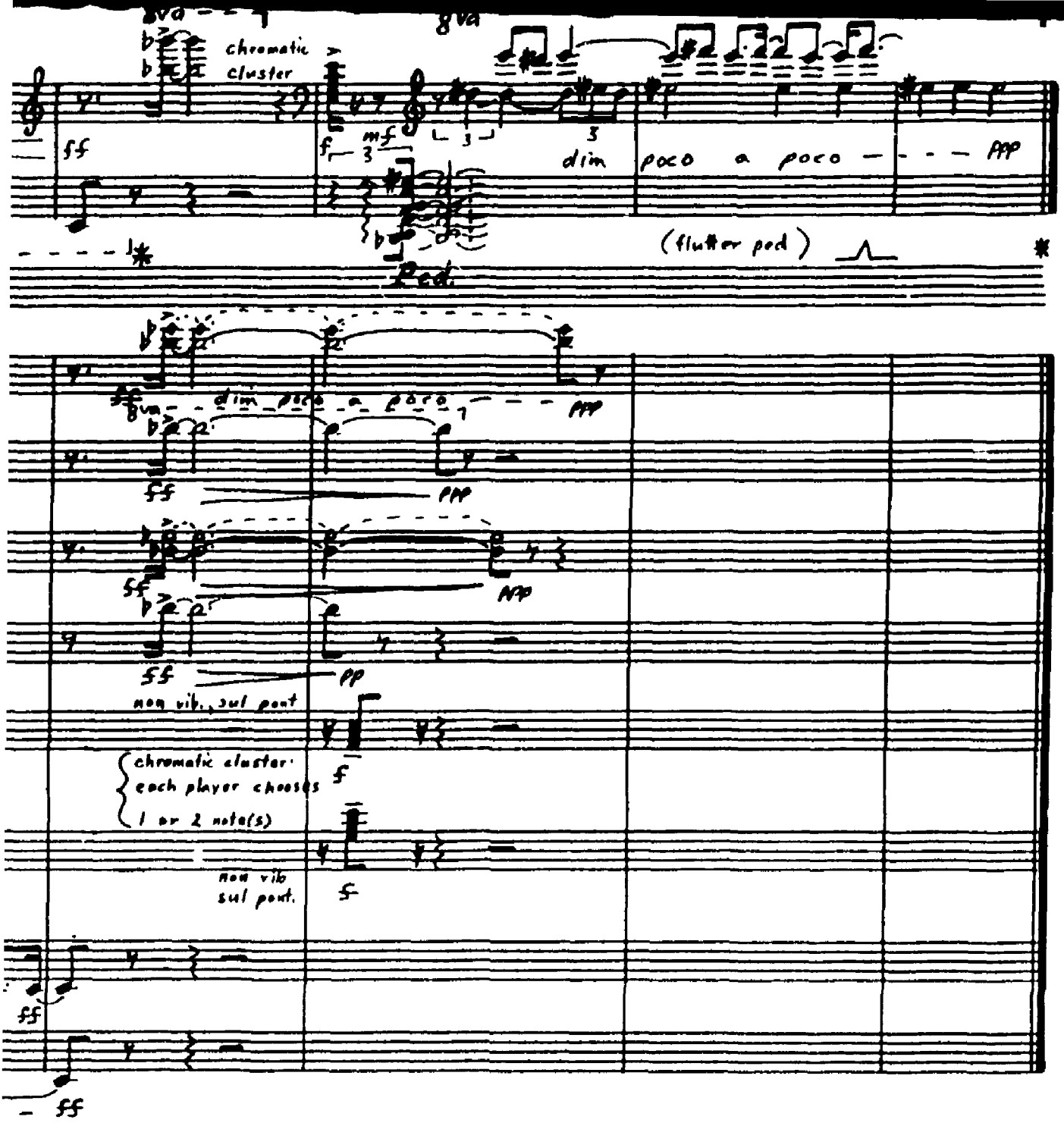

V
f
Hrp.
mf
U
Pno.
mp
f 3
Ped.
f
mf
sus. ped.
1 player
poco sul pont.
poco vib
mf
non dim
mf
non dim
I
Vln.
II
Vla.
1 player
mp
mf
pp
1 player
Vlc.
2 players
div
unis
DB.
p


Db Bb Ab
f
mf
sus. ped.
*
f
ff
Ped.
8va
ord.
mp
(non dim)
pp
1 player
mp
(non dim)
mp
(non dim)


Hrp.
Pno.
(arpeg)
f
8va
ff
(loco)
2ed.
I
Vln.
II
Vla
Vlc.
D.B.
tutti
pp cresc.
ff
pp


(arpeg)
f
ff
3
D♮ E♭ G♯ A♮
V
8va
Ped
*
*
(non div)
pp
pp < f
f
div.


Pno.
f
mp
p
pp
ff
Ped
8va
All strings:
non vib.
poco sul pont.
Vln I
div. a2
Vln. II
div. a2
Vla.
Vlc.
D.B.
div. a3
1 pizz.
2 arco
3
pp cresc poco a poco ff
ppp cresc. poco a poco ff


8va
chromatic cluster
ff
mf
dim
poco a poco
ppp
(flutter ped)
Ped.
dim poco a poco
ppp
ff
pp
non vib., sul pont
chromatic cluster:
each player chooses
1 or 2 note(s)
f
non vib
sul pont.