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THE UNIVERSITY OF ALBERTA

FIVE RITUALS

FOR WOODWIND QUINTET AND TWO PERCUSSIONISTS

by

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF MUSIC

DEPARTMENT OF MUSIC

EDMONTON, ALBERTA

SPRING, 1980

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled "Five Rituals for Woodwind Quintet and Two Percussionists" submitted by Allan Bell in partial fulfillment of the requirements for the degree of Master of Music.

Supervisor

Date APRIL 21, 1980

ABSTRACT

Five Rituals for woodwind quintet and two percussionists is a five movement work with the total duration of circa twenty-two minutes and forty-five seconds. It is music which is intended for the celebration of man's encounter with the known and the unknowable.

The first movement, "macrocosmos," has an aggressive character and a rapid tempo; "solitude," the second movement, has an introspective character and a slow tempo; the third movement, "vulnerability & communion," begins with a violent character and a fast tempo and ends with a lyric character and a slow tempo; "awakening," the fourth movement, has an introspective character and a slow tempo; and the last movement, "microcosmos," has a dynamic character and a rapid tempo.

An analysis of the formal structure and the pitch organisation is included.

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Introduction

As the title suggests, Five Rituals is music which is intended for the celebration of man's encounter with the known and the unknowable. It is a five movement work which is scored for woodwind quintet and two percussionists, and it has the total duration of circa twenty-two minutes and forty-five seconds.

With respect to the instrumentation of the piece, the standard woodwind quintet (flute, oboe, clarinet, horn, and bassoon) is supplemented by the following doublings: flute and alto flute; oboe and cor anglais; and clarinet and bass clarinet. As well, each of the percussionists performs on a large battery of instruments. The first percussionist makes use of the following instruments: suspended cymbals, tam-tam, temple blocks, piccolo and ordinary wood blocks, slit drum, crystal wine glasses, glass chimes, bongos, snare drum, tenor drums, bass drum, boobams, crotales, vibraphone, and metal sheet. The second percussionist makes use of the following instruments: suspended cymbals, gongs, wood-plate drums, log drum, plastic mixing bowls, tom-toms, bass drum, timpani, glockenspiel, marimba, lujon, tubular bells, and vibraphone. Both players share the same bass drum and vibraphone.

The analysis which introduces the work will not be addressed to the poetics behind the music. It will be restricted to an investigation of the elements which make the piece a unified musical experience. These elements are the

formal structures and the pitch organisation. An investigation of the former will elucidate relationships within the music and penetrate the elements which render the structure audible. As for the latter, the analysis will reveal the germinal intervallic materials and will demonstrate the flexibility and unifying capacity of the vocabulary.

Following the analysis will be the score itself. There the listener will encounter music which will explore both the standard and the more extended resources of the instruments. As well, the writing creates opportunities for the ensemble to explore music-making within both metric and improvisatory passages. However, all of the choices have been made for the purpose of expressing the emotional and spiritual content of an encounter with the process of life. It is ultimately to that issue that the listener and performer must address himself if an understanding of the piece is to be complete.

Formal Structure

Prelude

The analysis of the formal structure of Five Rituals will consist of a breakdown of the structural relationships within each of the movements preceeded by a discussion of the relationship that each movement has with the whole. Each intra-movement investigation will contain a formal schematic diagram which relates sections to measures within the score and, as well, a series of remarks about the salient structural features of the movement.

In order to facilitate a cogent discussion of these features with easy reference to the score, the following conventions will be used within the analysis:

(a) Upper and lower case letters will indicate respectively the large sections and periods within those sections. Any time that a section bears a primary relationship to a previous section but has undergone some variation, superscript Arabic numerals will be used. A superscript "x" indicates that a shortened version of the material has been used. Sections which are developments of previous material will include letters in parenthesis which indicate the derivation of the material.

(b) Measures within the movements will be indicated through reference to the rehearsal numbers found within the score. Numbers which occur before

the colon refer to the rehearsal number and those which occur after refer to the measure. Measures found before rehearsal number 1 will be referred to through the use of the number "0." Hence, the first measure of each movement will be referred to as 0:1. The numbering of measures within each rehearsal section begins with the number "1"; therefore, 7:1 refers to the first measure of rehearsal section 7 and 7:3 to the third measure of that same section. Movements 2 and 4 have a rehearsal number for each "measure" and are referred to accordingly.

(c) The numbers in the right hand column indicate the number of measures involved in each of the sections.

The unifying element of the entire piece is the motivic and harmonic material shared by all of the movements. Since this will be dealt with in a separate section, the discussion of the formal structure of Five Rituals will restrict itself to an investigation of the sectional and periodic demarcations, how they are achieved, and how their relationships generate the structure of the whole.

Five Rituals: Inter-movement Form

A brief outline of the formal features of the five movements will reveal the basic structure of the entire piece. If form, character, and tempo are used as determining factors, the following scheme arises:

1: Five part arch form ($ABCB^1A^1$), aggressive character, rapid tempo

2: Sectional fantasia, introspective character, slow tempo

3: Bipartite form, polarity in character between violence and lyricism, fast tempo in A section and slow tempo in B section

4: Sectional fantasia, introspective character, slow tempo

5: Rondo form (ABACABA), dynamic character, rapid tempo

The first and the fifth movements are closely related with respect to character and tempo. As well, the rondo form of the last movement has the arch form principle of the first movement with the additional interpolations of the A section. With respect to their form, character, and tempo, the second and fourth movements also bear a primary relationship to one another. From this outline it can be seen that the entire piece has the five part arch form ($ABCB^1A^1$). Hence the formal structure of the first movement is the same formal principle by which the whole piece is organised.

1. macrocosmos

The following is the structural scheme of the first movement:

A		0:1 - 7:9	75
	a	0:1 - 2:7	22
	b	3:1 - 3:13	13
	a^x	4:1 - 4:5	5
	b^1	5:1 - 5:13	13
	a	6:1 - 7:9	22
B		8:1 - 9:11	19
	a	8:1 - 8:8	8
	a^1	9:1 - 9:11	11
C		10:1 - 14:12	38
	a	10:1 - 11:7	14
	b	12:1 - 12:5	5
	a^1	13:1 - 14:12	19
B^1		15:1 - 16:11	19
	a	15:1 - 15:8	8
	a^1	16:1 - 16:11	11
A^1		17:1 - 26:7	91
	a	17:1 - 18:9	21
	b	19:1 - 19:13	13
	a^x	20:1 - 20:5	5
	c	21:1 - 24:12	32
	Ba	21:1 - 21:7	7
	Cb	22:1 - 22:7	7
	Ba	23:1 - 23:6	6
	Ca	24:1 - 24:12	12
	a	25:1 - 26:7	20
Coda		27:1 - 27:8	8

The first movement is a five part arch form ($ABCB^1A^1$) which ends with a short coda. Each of the sections exhibits a different internal structure: the A section has a five part arch form; the B section has the form of a period followed by a slight variation; and the C section has ternary (aba) form. The internal structure of A^1 has been altered from A in that Ab^1 has been replaced by a section (A^1c) which recapitulates material from sections B and C. This formal modification allows the A^1 section to act as a culminative perorarion for the movement.

Since the tempo remains constant, sectional demarcations are achieved through changes in texture and metre. With regard to texture, the scheme of the movement is as follows: Aa is a tutti passage, Ab is a wind solo accompanied by the percussion, Ba is a duo which culminates in a tutti, Ca is a solo line with harmonic and rhythmic amplification, and Cb is an accompanied percussion solo. The rest of the sections (those with superscripts) are variations upon this basic, albeit simplified, textural scheme, The clarity of sectional demarcation is also established through the use of a different metric organisation for each main section. The use of duple, triple and quintuple metres reflects the movement's preoccupation with the number "5" in that the sum of the first two, without considering the unit of pulse, equals the third. Section C, the formal fulcrum of the movement, is in five-eight time which is the halfway mark between two-four and three-four when the unit of pulse is

taken into consideration.

2. solitude

The second movement, a sectional fantasia, has the following formal scheme:

Section 1	0 - 6
Section 2	7 - 13
Section 3	14 - 17
Section 4	18 - 22
Section 5	23 - 33

The factor which determines the structural demarcations within this movement is timbre. Section 1 is characterised by the use of percussion timbre only, section 2 by the introduction of breathy, unpitched sounds in the woodwinds, section 3 by the introduction of primitive and pitched lines in the woodwinds, section 4 by the reintroduction of the breathy woodwind sounds, and section 5 by the reintroduction of the percussion sonority from the beginning of the movement. The quarter tone inflections found in the woodwinds do not have a structural relationship with any of the other movements and have been chosen for the evocative character of the expression which they give to the melodic line.

3. vulnerability & communion

The formal scheme of the bipartite third movement is as follows:

A		0:1 - 6:9	54
	a	0:1 - 2:11	23
	a^1	3:1 - 4:8	16
	b	5:1 - 6:9	15
B		7:1 - 13:7	45
Coda (ab)		14:1 - 14:6	6

The first section of this movement is designed to express a maximum amount of violence to the listener. Aa and Aa^1 are both broad crescendi which exploit the percussion section and the shrill and raucous sonorities available from the quintet. The climax of Aa, the first crescendo, occurs when the quintet sounds a "g" in three octaves. The beginning of Aa^1 is indicated by the return of the timpani thumb-glissando which opened the movement. The second and louder climax of the section, at the end of Aa^1, is followed by a single "d" in the oboe. This same pitch, as it undergoes a timbric transformation when it is passed around the instruments of the quintet, acts as a transition (Ab) to the B section. Hence it can be seen that timbre, dynamic, and the use of a single pitch are the factors which delineate structure in the opening section.

The B section involves the use of an imitative, contrapuntal texture. Although it is continuous in its motion, this section can be divided with regard to the number of musical lines which are present. The texture is as follows: two-part (7:1-6), three-part (8:1-6), four-part (9:1-6), five-part (10:1-6), three-part (11:1-6), four-part (12:1-8), and

two-part (13:1-7). The climax of the section occurs where the texture is most dense (10:1-6). The approach to the climax is achieved by the cumulative addition of contrapuntal lines, whereas the peroration involves the subtraction of two lines, the addition of one line and the subtraction again of two lines. The manipulation of texture is therefore the determining factor in the shaping of this B section.

The apparently extreme dissimilarity of A and B is reconciled in the Coda through the use of the timbric transformation found in Ab and the chordal elements (the result of contrapuntal activity) from the end of B (13:5-7).

4. awakening

Although the fourth movement is heard as an unified whole, it will be divided into two simultaneously sounding formal schemes for the purpose of analysis. The percussion material has the form of a slow, upwardly rising melodic line which consists of three elements: single repeated pitches, chords, and arabesque figures resulting in chords. On the other hand, the quintet material involves the use of the following five elements:

a: alto flute pitch bend

b: woodwind multiphonics

c: single melodic line

d: timbric variations upon pitch

e: melodic line in fifths

Bearing in mind that the two schematic diagrams indicate material which is heard simultaneously, the following is the formal scheme of the fourth movement:

Percussion material

Section 1	0 - 9
Section 2	10 - 18
Section 3	19 - 22
Section 4	23 - 26

Quintet material

a	0 - 3
b	4
c	5
d	6
e	8
b^1+c^1	13 - 14
e^1	15
c^2	16
d^1	17
c^3	19 - 20
e^2	21
a	22 - 23
$a+b^2$	24

Within the percussion material, the formal structure is delineated through the introduction of a different instrument which continues the upward thrust of the line. The structure of the quintet material is achieved through the successive introduction of five recognisably different

musical elements which are reordered and developed while maintaining their timbric or melodic identity. As with the second movement, timbre is the fundamental factor determining structure within the fourth movement.

5. microcosmos

The final movement is a rondo which has the following formal scheme:

A		0:1 - 1:6	10
	a	0:1 - 0:4	4
	b	1:1 - 1:6	6
B		2:1 - 4:5	16
A^1		5:1 - 6:8	12
	a	5:1 - 5:4	4
	b	6:1 - 6:8	8
C		7:1 - 9:7	20
	a	7:1 - 7:10	10
	b(Ax)	8:1 - 8:3	3
	a^1	9:1 - 9:7	7
A^2		10:1 - 12:7	17
	a	10:1 - 10:4	4
	a^1	11:1 - 11:6	6
	b	12:1 - 12:7	7
B^1		13:1 - 15:6	16
A^3		16:1 - 17:7	11
	a	16:1 - 16:4	4
	b	17:1 - 17:7	7

Coda	18:1 - 23:4	32
a(A^2a^1)	18:1 - 18:6	6
b(Aa)	19:1 - 19:3	3
c(B)	20:1 - 20:6	6
d(Ca)	21:1 - 21:8	8
e(ABC)	22:1 - 23:4	9

The rondo theme (A) is in two parts. It opens with a frenetic mass of sound, in constant sixteenth-note motion, which is treated antiphonally between the quintet and the percussionists. The second part of the theme is played only by the quintet. In this case, a melodic line surfaces above the mass of sound through the accentuation and octave reinforcement of the pitches involved in the melody. With each entry of the rondo theme, the instruments used by the percussionists are changed creating a new sonority for the antiphonal first section. The quintet part is modified by extending the melodic line of the second part of the theme.

Episodes B and C bear a primary relationship to one another. The material in C is a development of the rhythmic motives found in B. As well, B features melodic material in the woodwinds accompanied by the percussion whereas C features melodic material in the percussion accompanied by the woodwinds. In both cases the accompaniments are characterised by constant sixteenth-note rhythmic patterns.

The Coda recapitulates material from the rest of the movement (a and b) and further develops earlier material (mini-fugato of c, new accompaniment found in d). This

provides a culmination for the movement, and because of the length of the Coda with respect to the rest of the movement, a culmination for the entire piece.

Although the entire movement is a moto perpetuo and the sections move smoothly from one to the next, the formal divisions are audible. This is because of the distinctive character of each of the sections.

Pitch Organisation

Five Rituals makes use of an harmonic and melodic vocabulary which is based upon the intervals of the minor second and the perfect fourth and their inversions, the major seventh and the perfect fifth. Each movement, and the melodic and harmonic materials therein, functions as a development of these germinal intervals.

A series of examples chosen from the score will demonstrate the means through which the germinal intervals are transformed into motives and therefore into manipulatible musical materials. The following system will be used to refer to the intervals that are found in the examples:

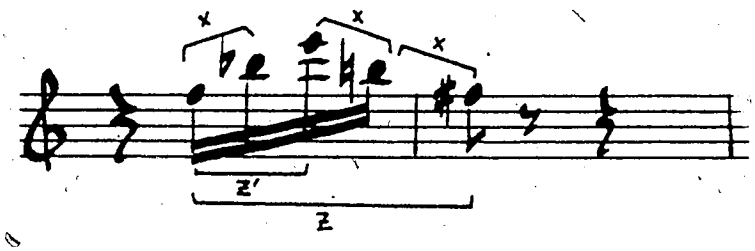
x: perfect fourth

z: minor second

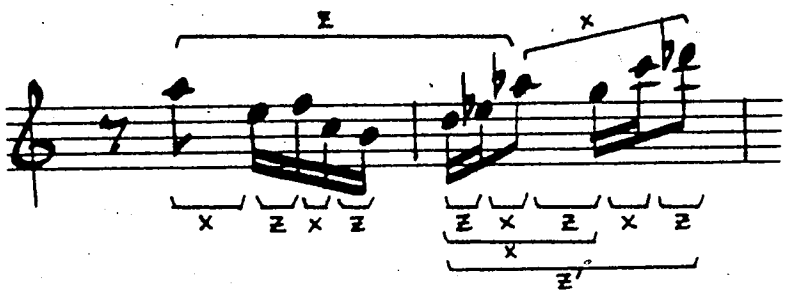
x^1: perfect fifth

z^1: major seventh

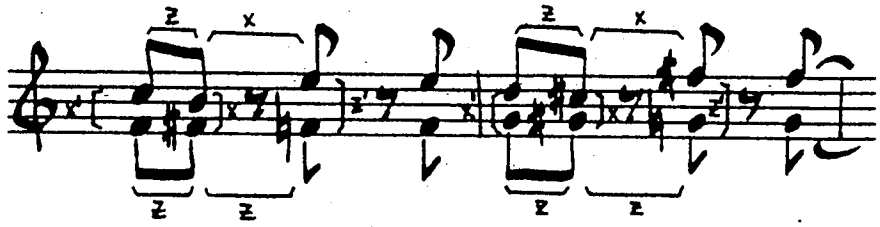
Ex. 1, Mov't 1 0:1-2



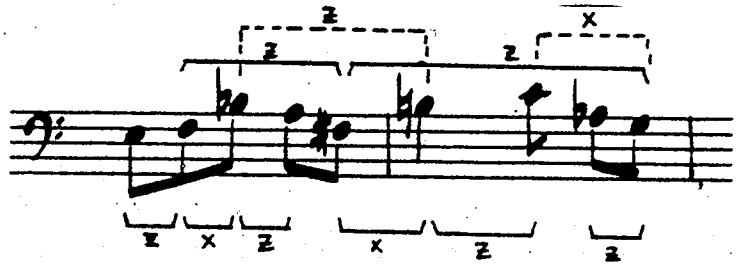
Ex.2, Mov't 1, 1:6-7



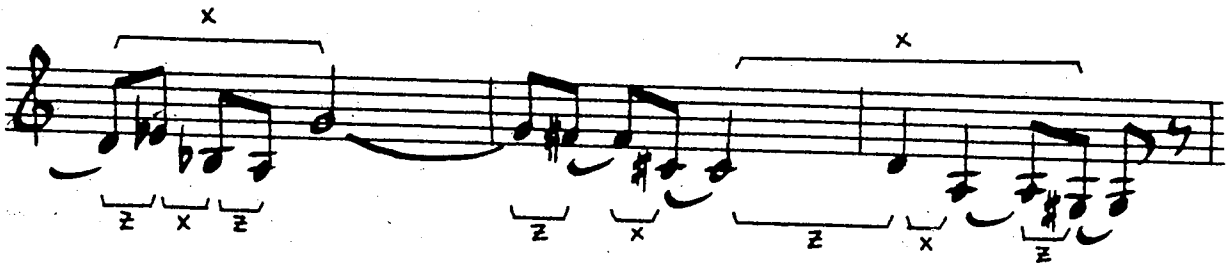
Ex. 3, Mov't 1, 8:1-2



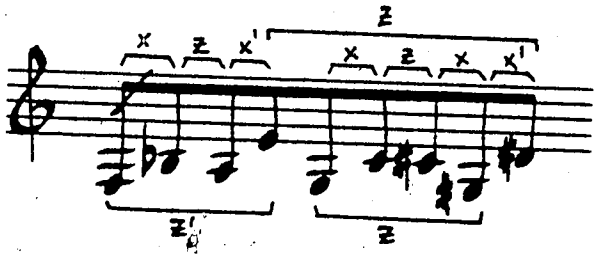
Ex. 4, Mov't 1, 10:1-2



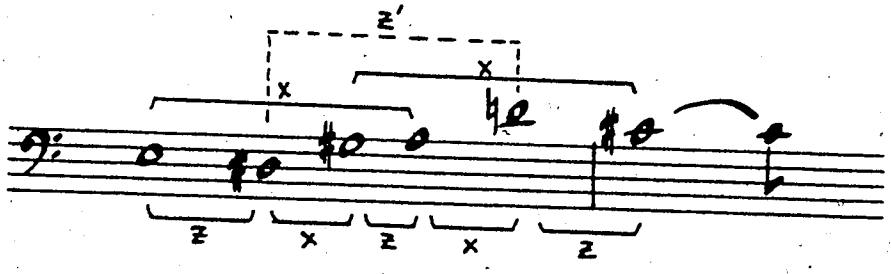
Ex. 5, Mov't 3, 7:1-3



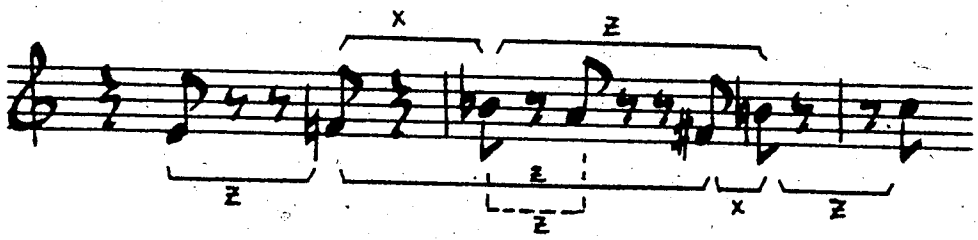
Ex. 6, Mov't 4, 3



Ex. 7, Mov't 4, 5



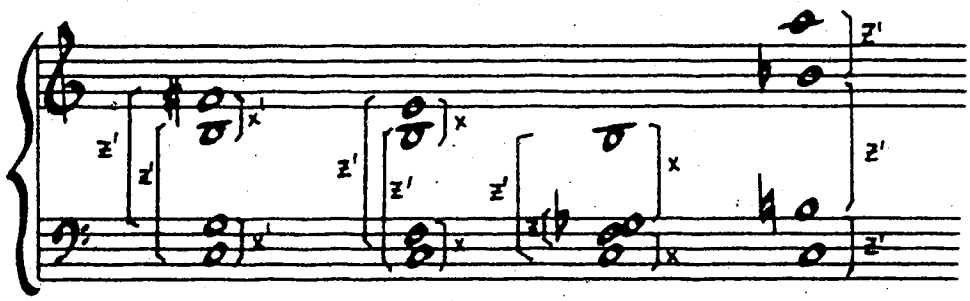
Ex. 8, Mov't 5, 1:1-3



As well as the germinal intervals, other intervals occur within the musical fabric as a result of the various levels of interaction between the germinal intervals. For example: the tritone "b-flat" to "e" in Ex. 1, the major second "e" to "d" in Ex. 3, the minor third "a" down to "f-sharp" in Ex.4, the minor seventh "a" to "g" in Ex. 5, and the major sixth "e" down to "g" in Ex. 6. These are all intervals which occur because of the flexible means through which the germinal intervals are manipulated.

Harmonically, the piece makes consistent use of sonorities which are created through the superimposition of the germinal intervals. The following chords form the basis of the harmonic language:

Ex. 9 Harmonic vocabulary



These basic chords, which are arranged from left to right in increasing levels of relative tension, can be transposed and revoiced depending upon the voice-leading considerations of the passage involved. As well, the chords may be expanded to five or more voices by the addition of any of the

germinal intervals. They may also be contracted by the reverse process. In every case, the choice of chords is dependent upon the intensity of the sonority required by the musical passage.

The vocabulary is flexible in that it can generate large numbers of melodic possibilities and harmonic structures that have varying degrees of inherent acoustical tension. It is also the primary unifying element of the piece because it provides an aural framework of recurring intervals which ground the music in an audible intelligibility.

FIVE RITUALS

For Woodwind Quintet

For the celebration of

1. macrocosmos
2. solitude
3. vulnerability & communion
4. awakening
5. microcosmos

FIVE RITUALS

Instrumentation

flute (& alto flute)

oboe (& cor anglais)

clarinet in b flat (& bass clarinet)

horn

bassoon

percussion 1: 3 suspended cymbals, tam tam, temple blocks, piccolo & 3 wood blocks, slit drum, 2 crystal wine glasses, glass chimes, bongos, snare & 2 tenor drums, bass drum, bobbins, crotales, vibraphone, xylophone, metal sheet

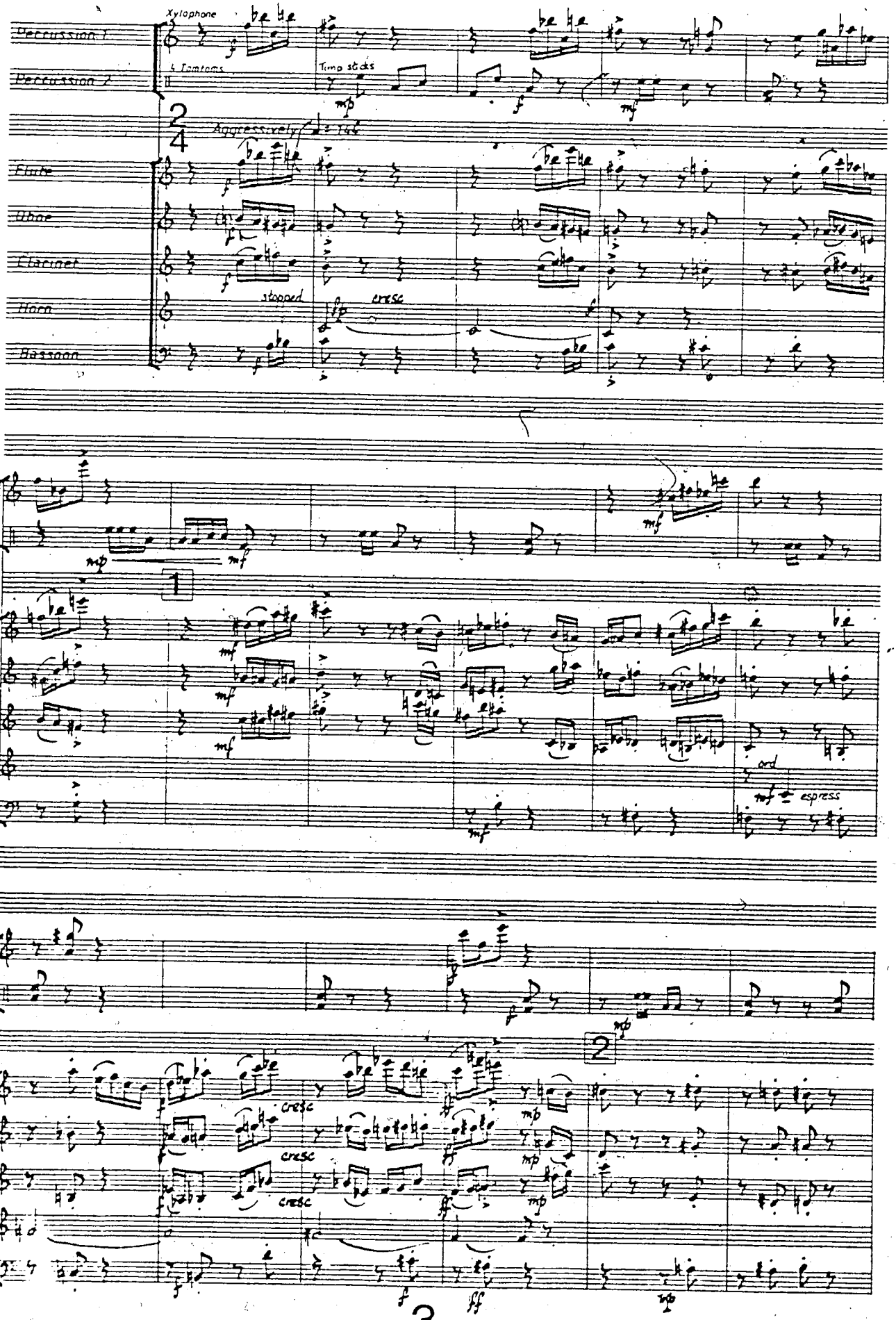
percussion 2: 3 suspended cymbals, 3 gongs, 3 wood plate drums, 4 plastic mixing bowls, 4 tom toms, bass drum, timpani, glockenspiel, marimba, lujon, tubular bells, vibraphone

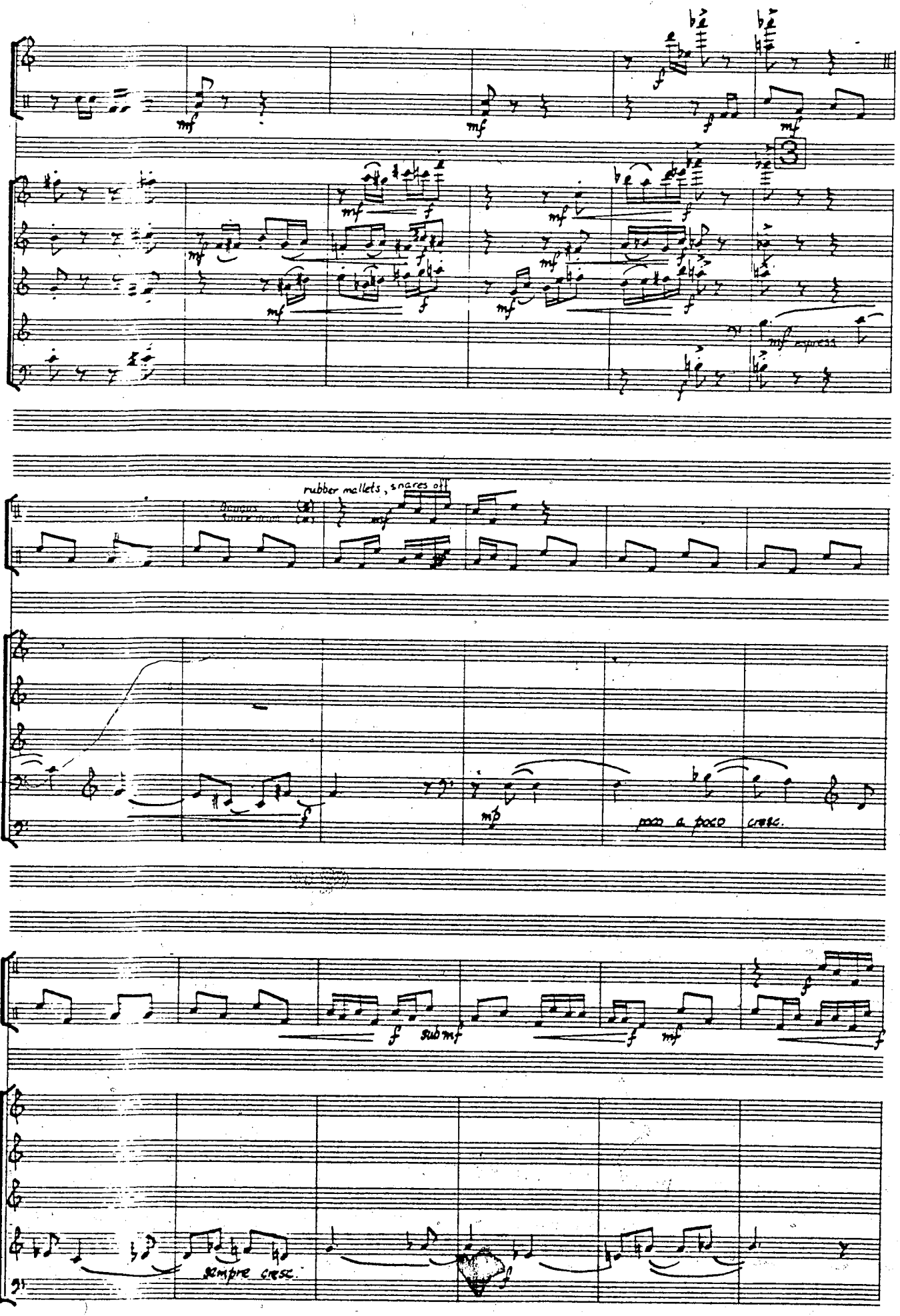
Duration

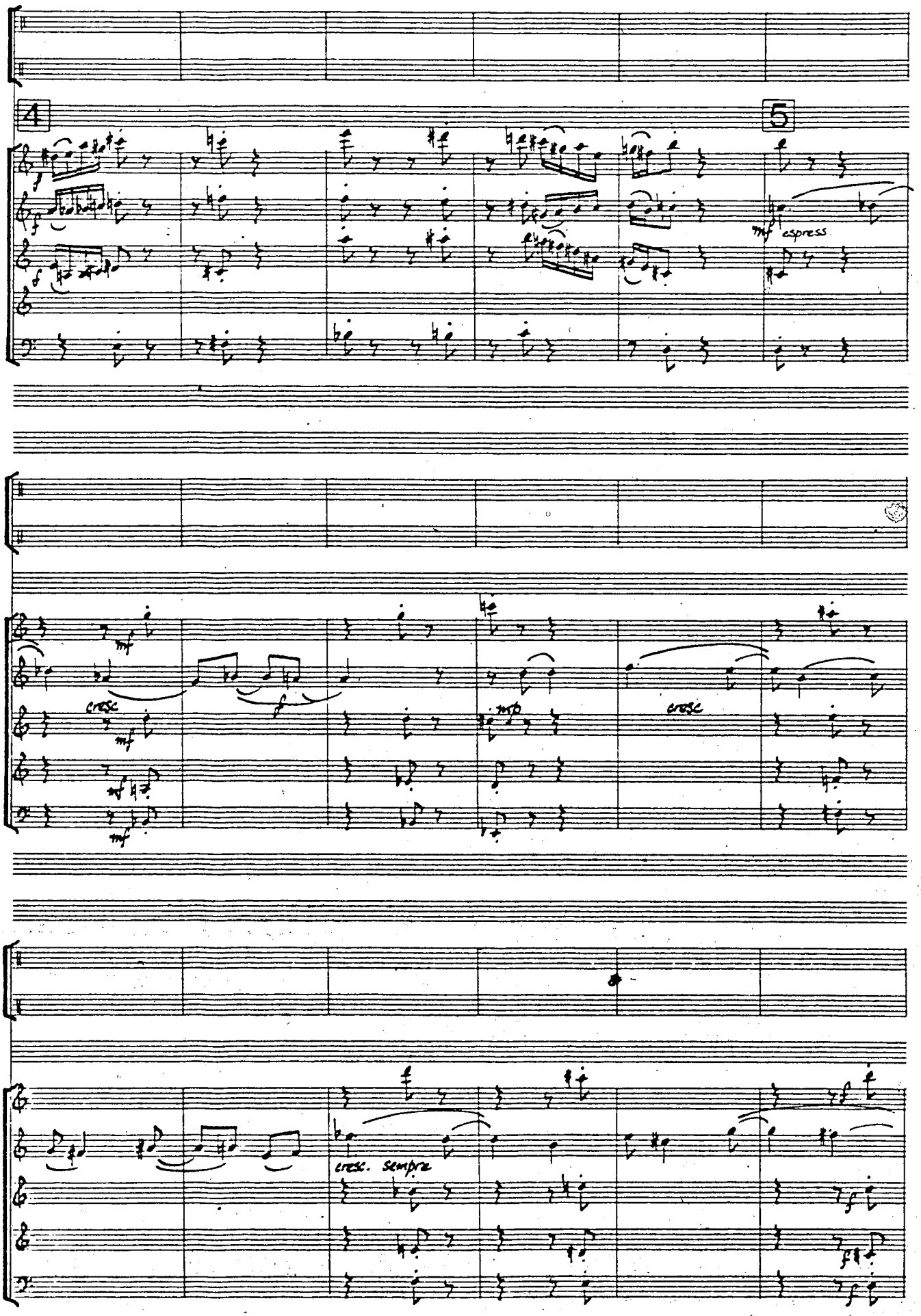
1	4:00
2	4:30
3	4:30
4	4:45
5	5:00

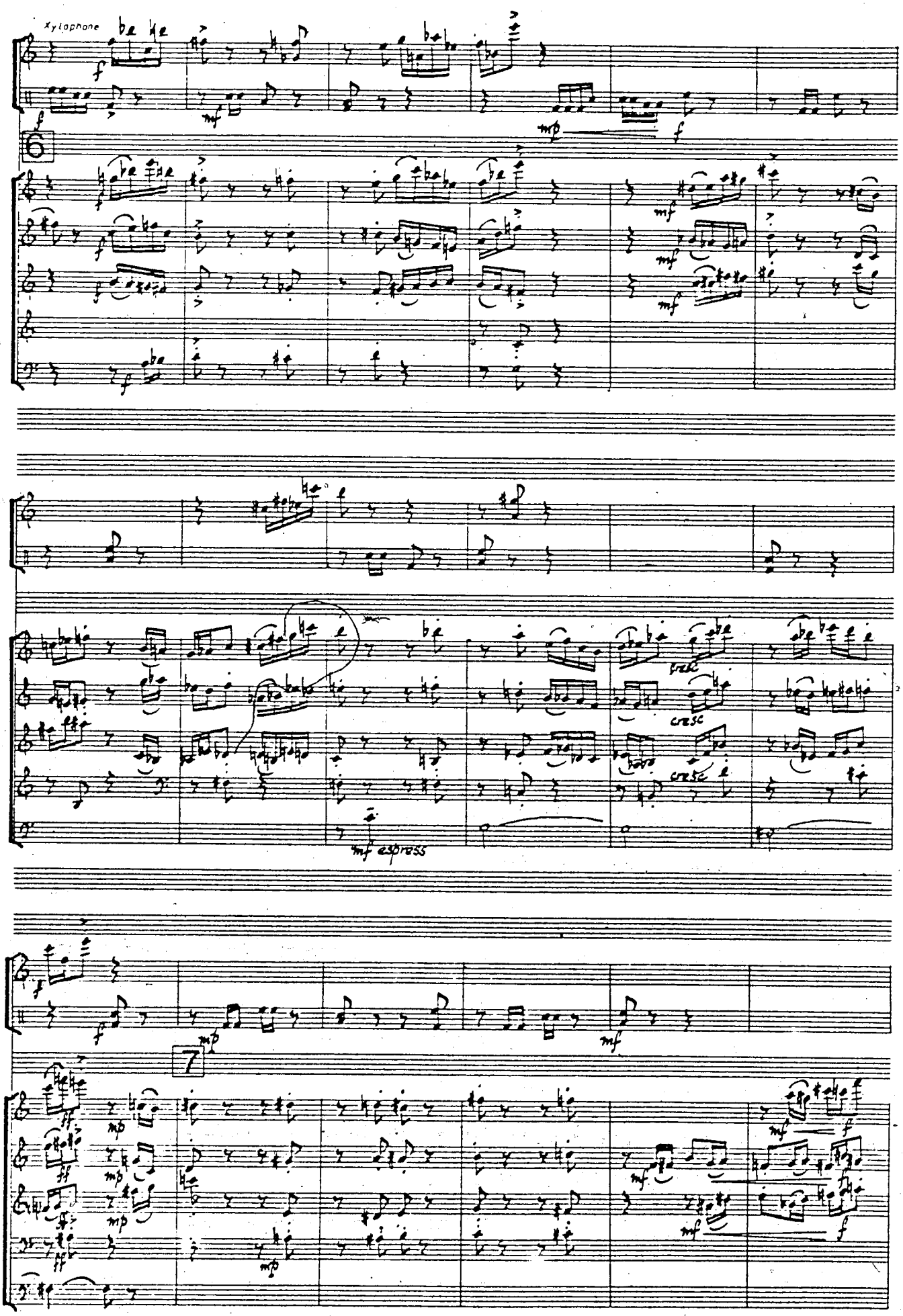
Total: 22:45

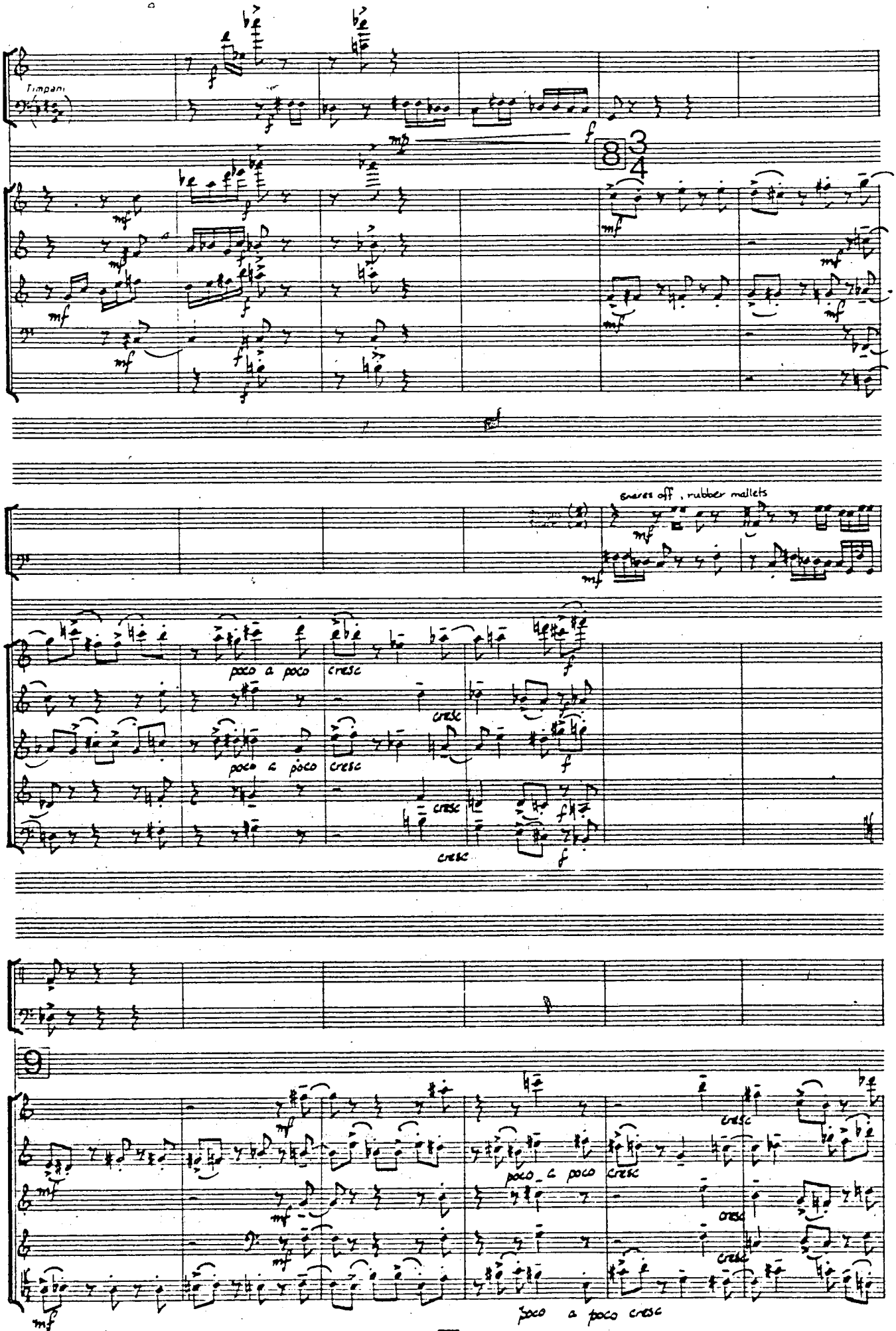
Score in C

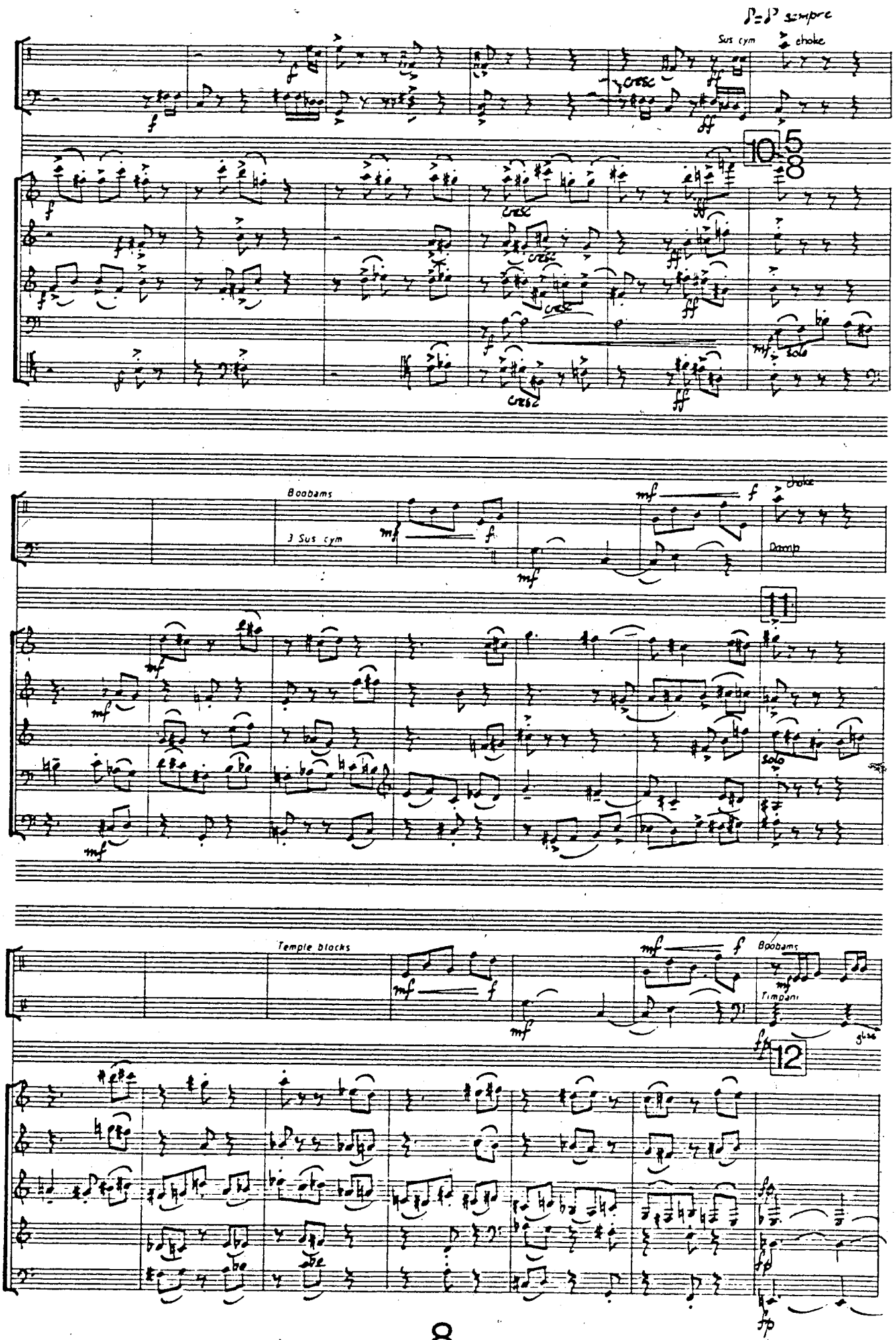

Xylophone
Percussion 1
4 Tomtoms
Timp sticks
Percussion 2
Aggressively
Flute
Oboe
Clarinet
stopped
cresc
Horn
Bassoon
ord
espress
cresc
cresc
cresc

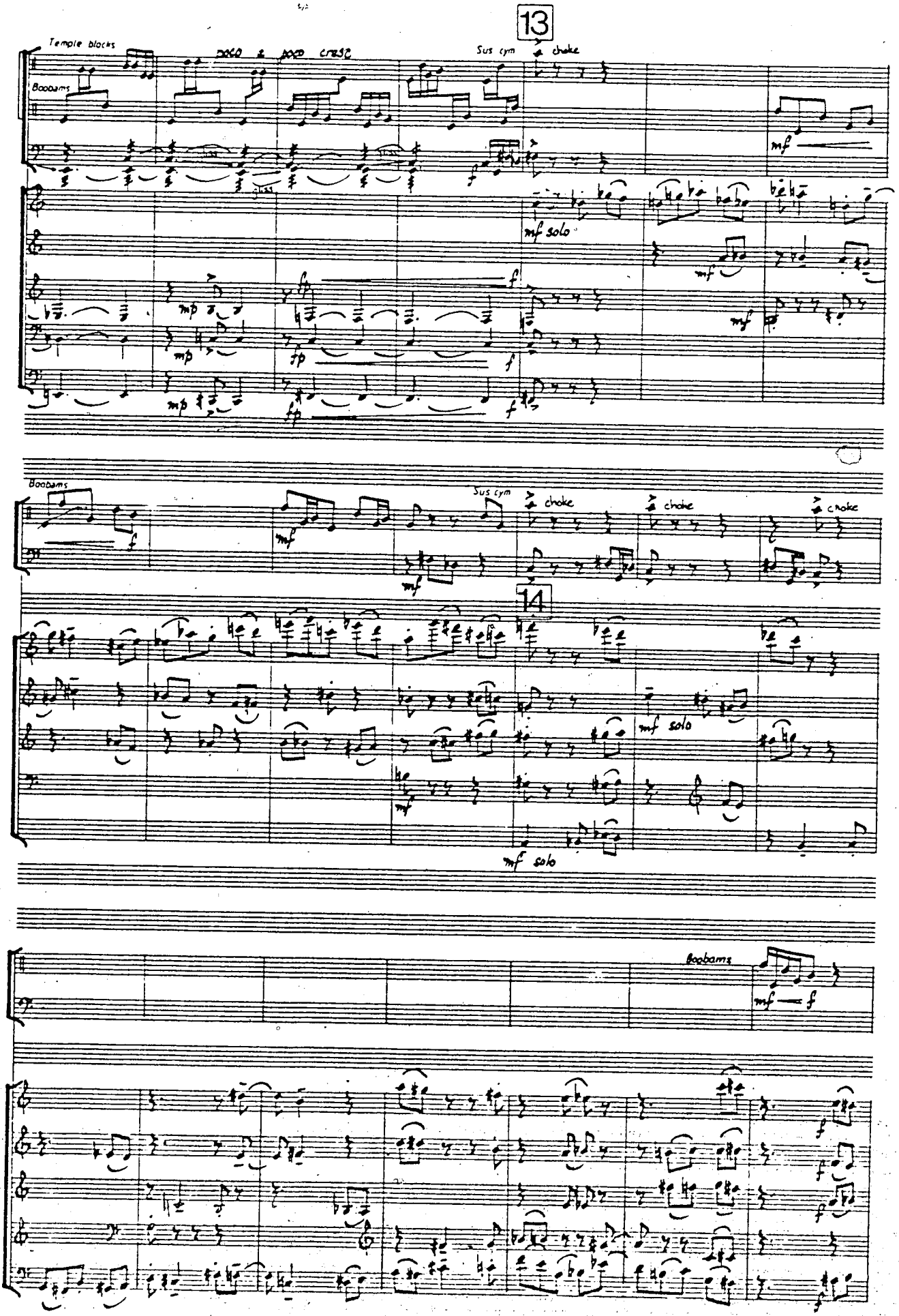

mf
f
mf
mf
mf

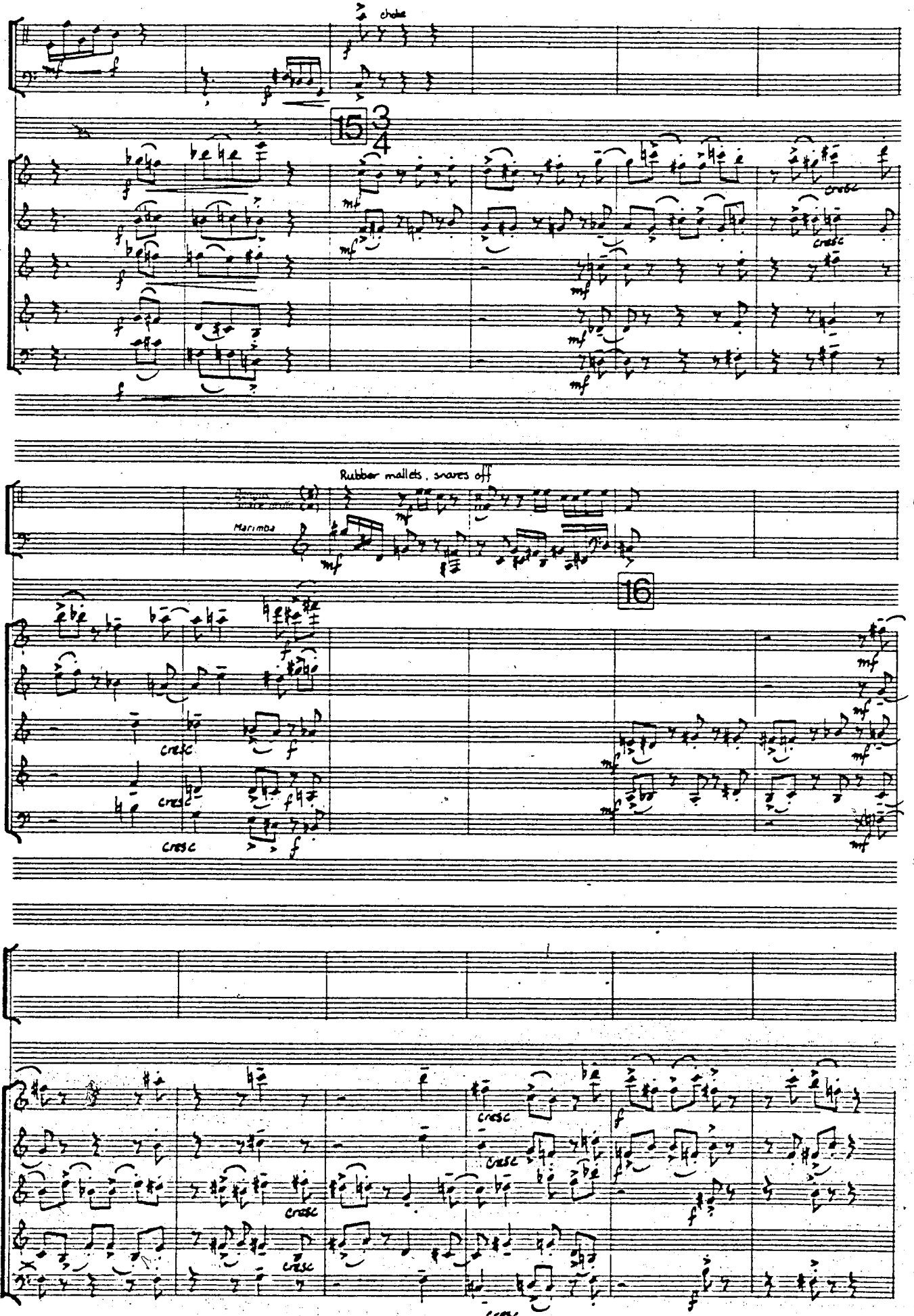

4
5
espress
cresc
cresc
cresc. sempre

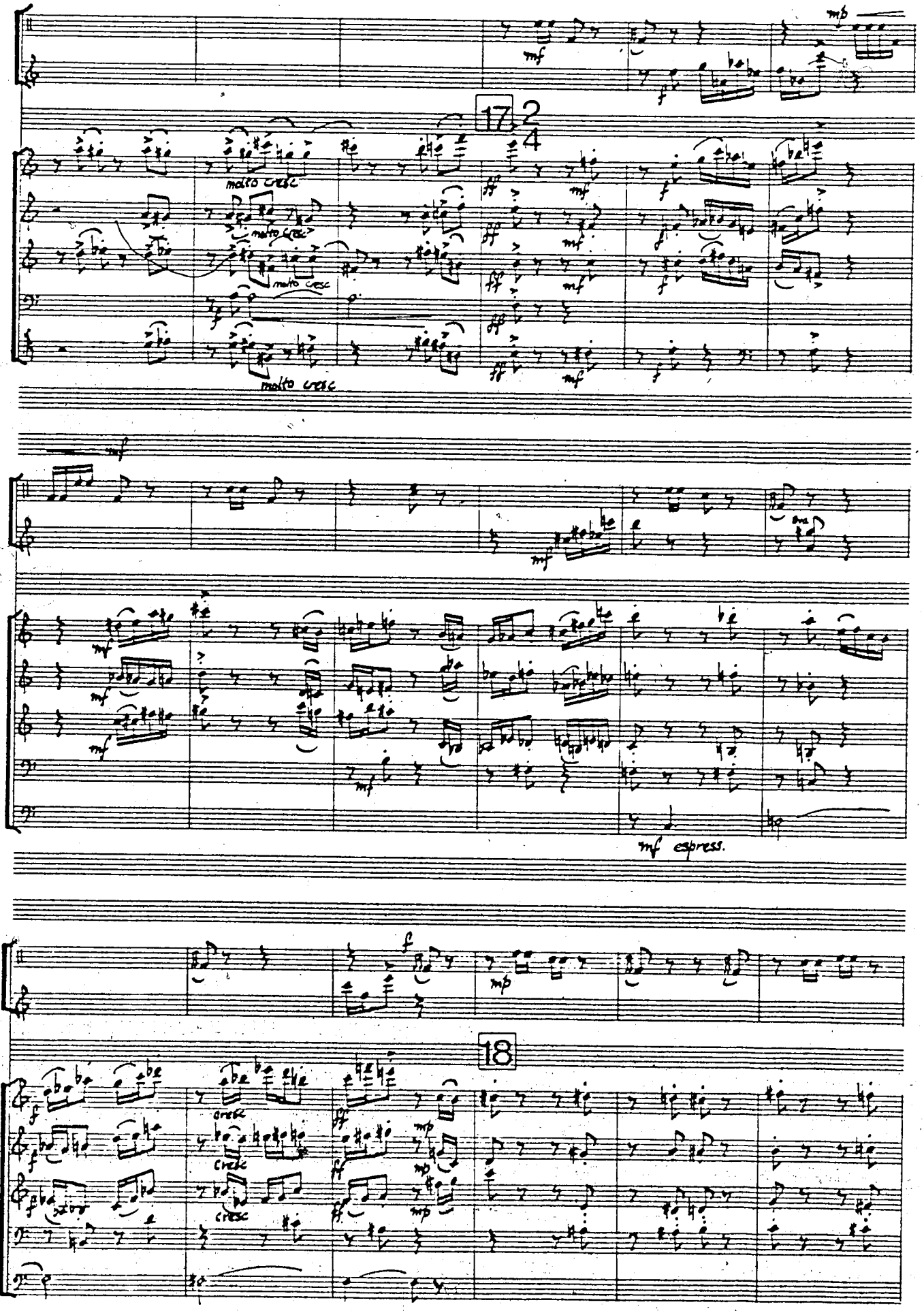

Xylophone
6
cresc
cresc
mf espress
7

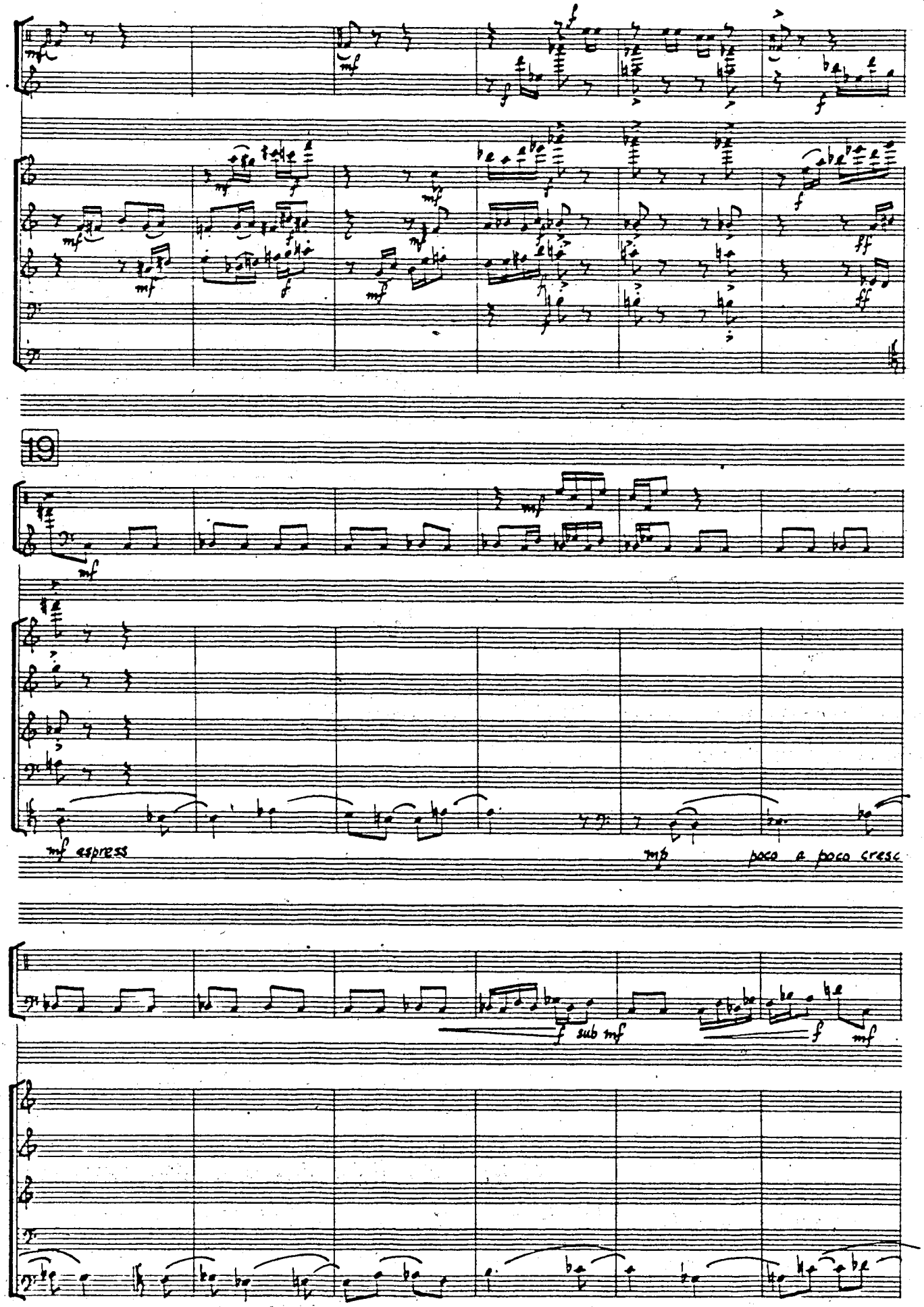

Timpani
8 3 4
snares off, rubber mallets
poco a poco
cresc
9
poco a poco cresc

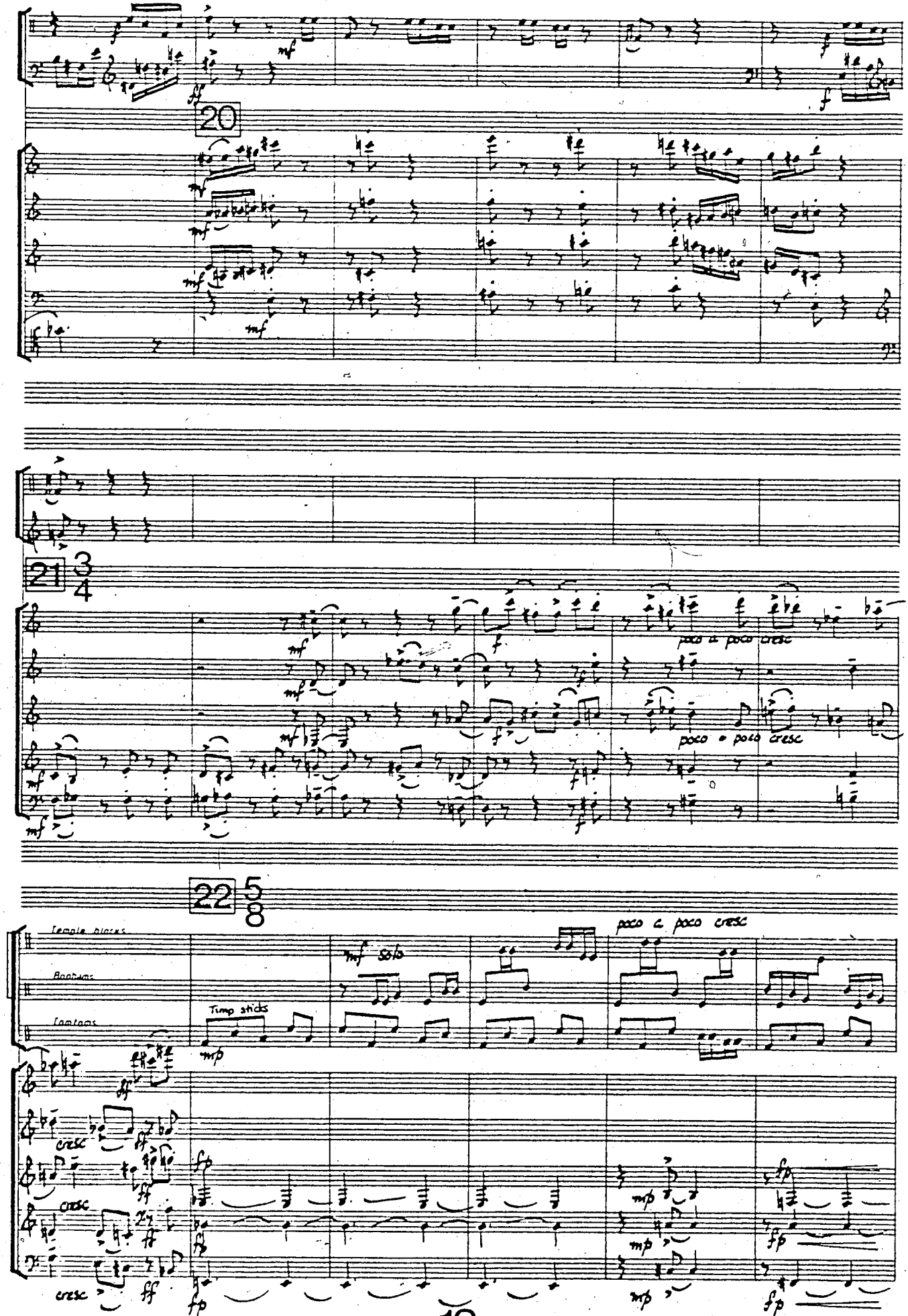

♪=♪ sempre
Sus cym
choke
10
5
8
solo
Boobams
3 Sus cym
Damp
11
Temple blocks
Boobams
Timpani
12

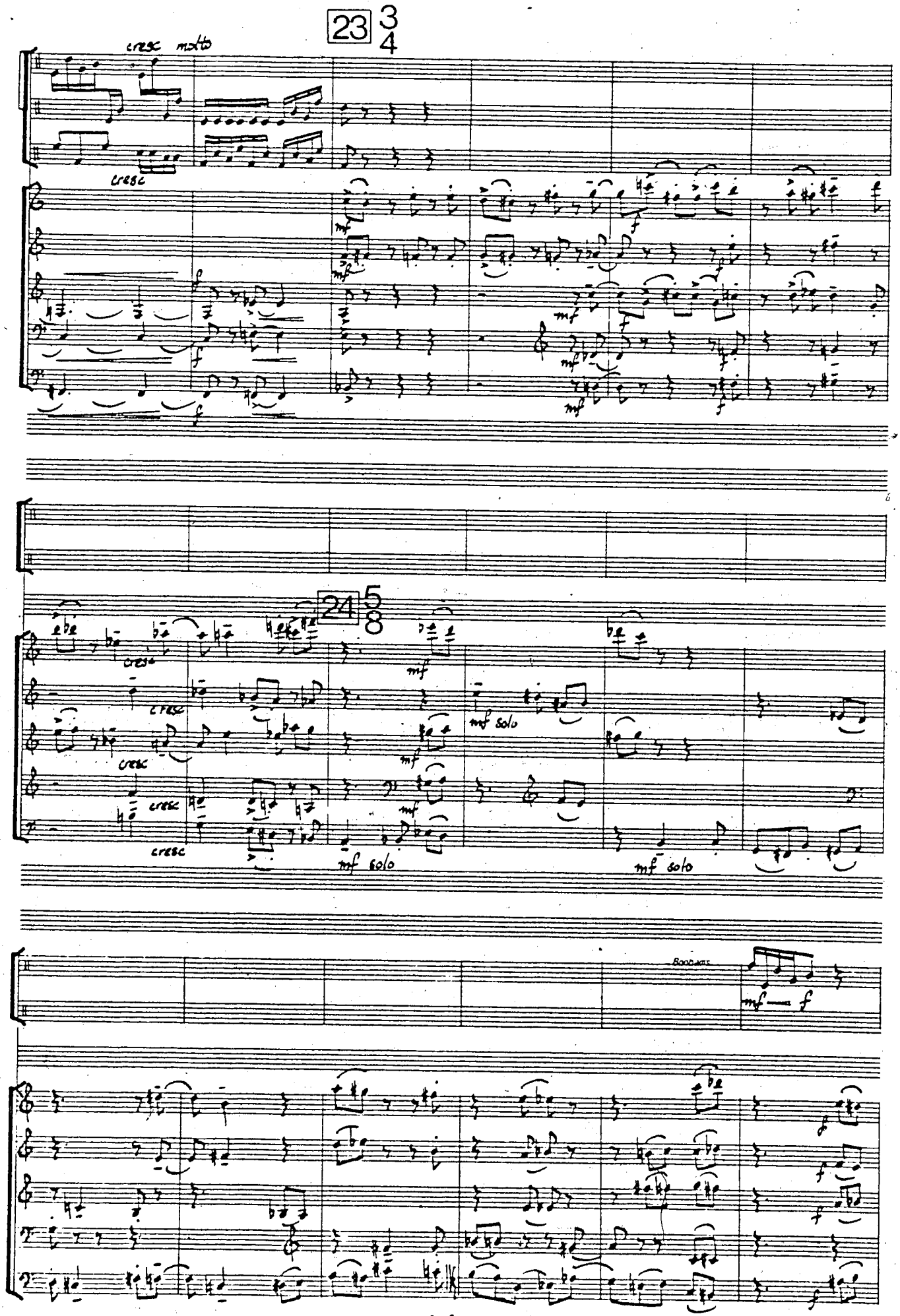

13
Temple blocks
Sus cym
choke
Boobams
mf
mf solo
mp
fp
f
14
mf solo
Boobams
mf — f

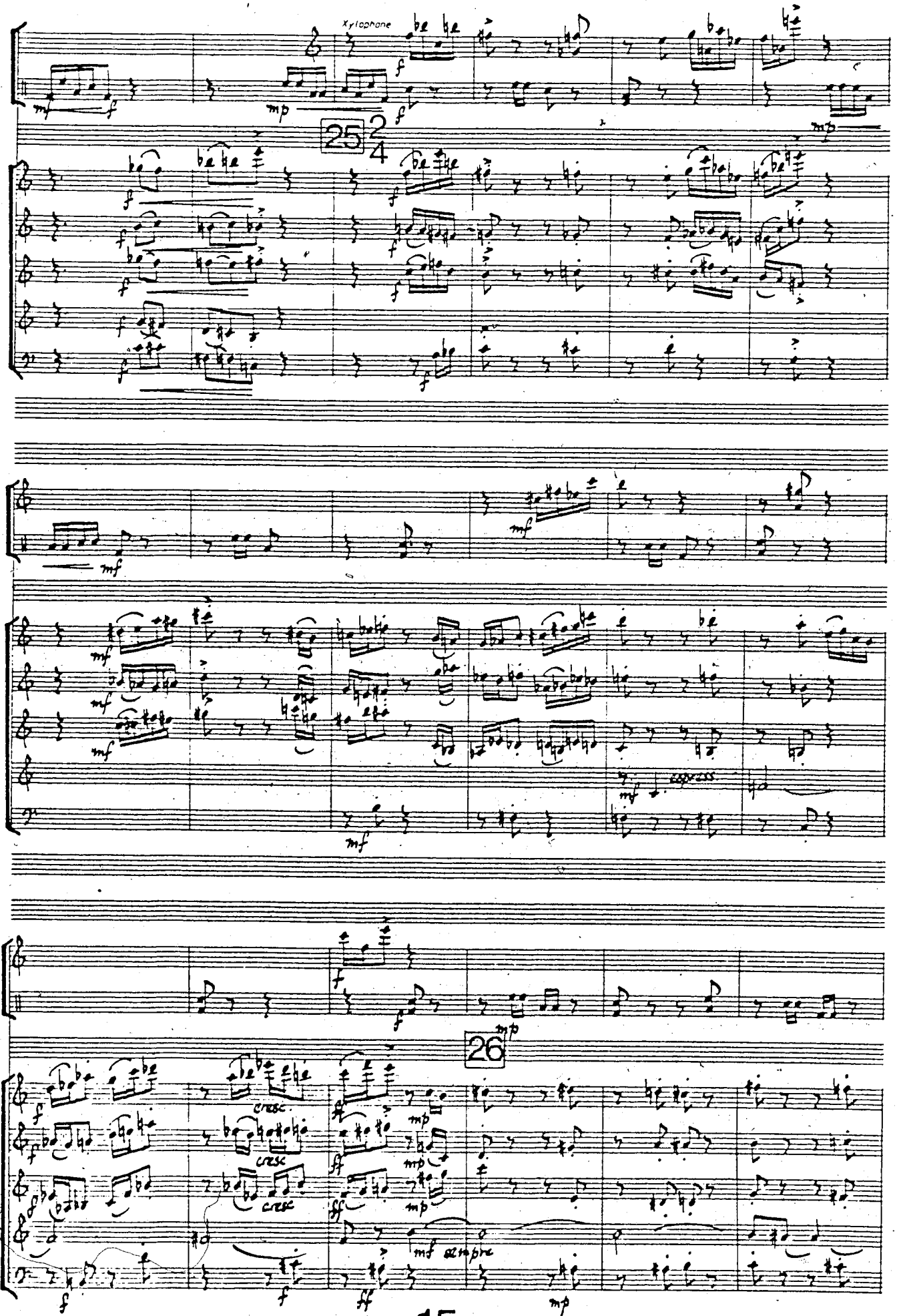

choke
15
3
4
cresc
Rubber mallets, snares off
Marimba
16
cresc
10

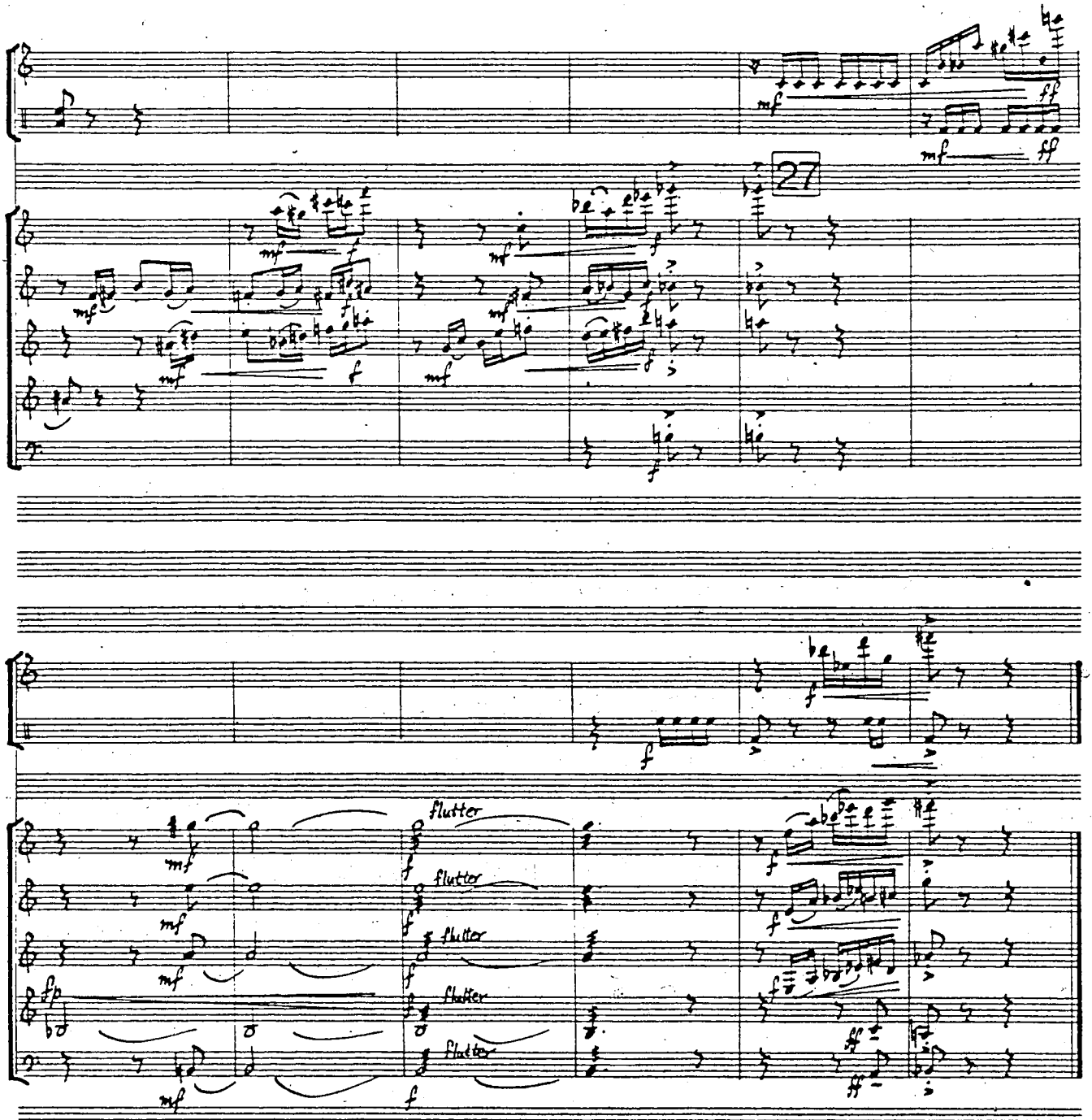

17
2
4
molto cresc
molto cresc
molto cresc
mf
mf
mf
mf
mf
mf
mf
mf
mf
mf
mf
mf
mf espress.
f
mp
18
f
f
cresc
cresc
cresc
ff
ff
mp
mp

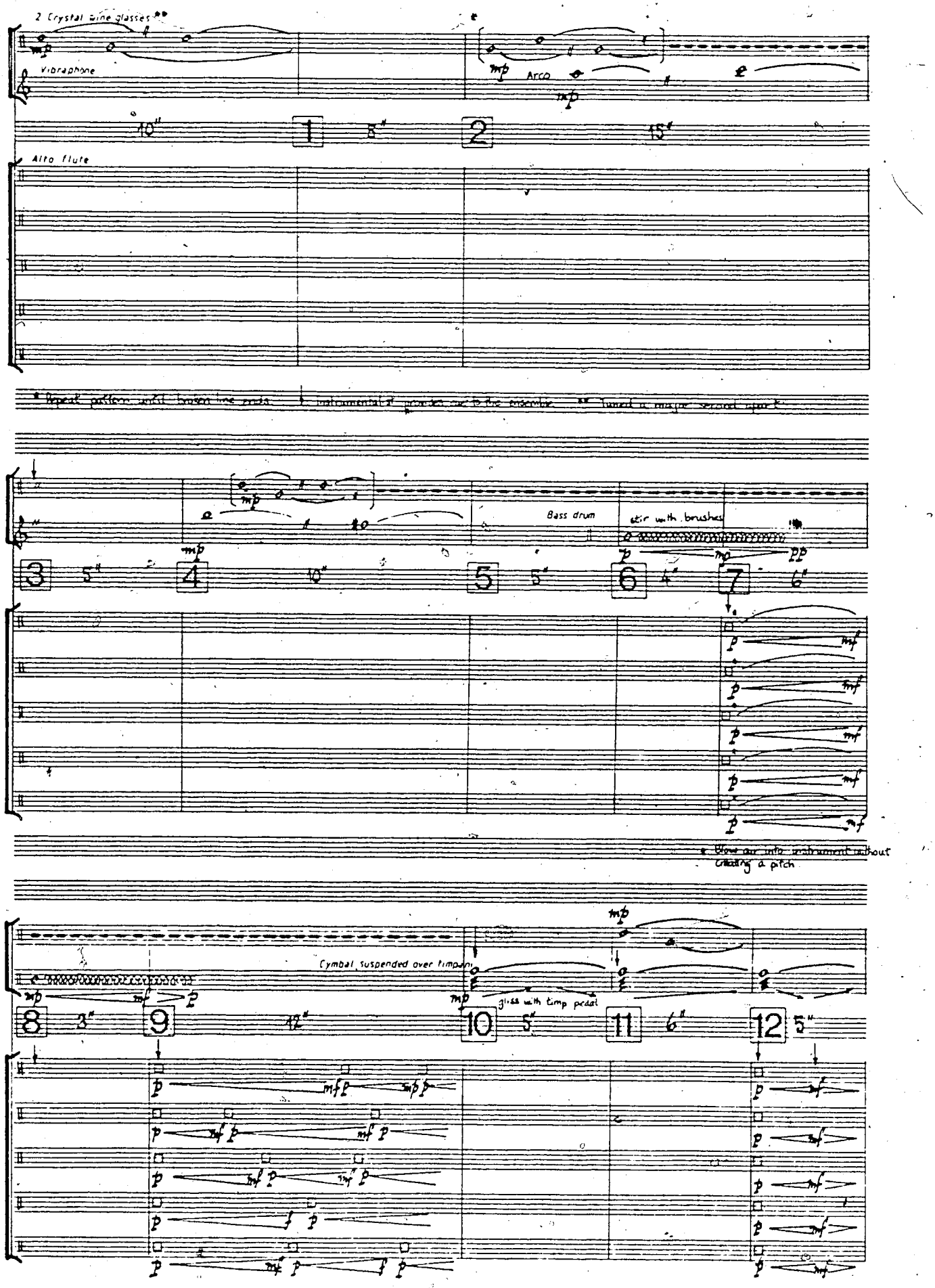

19
mf espress
mf poco a poco cresc
f sub mf
f mf

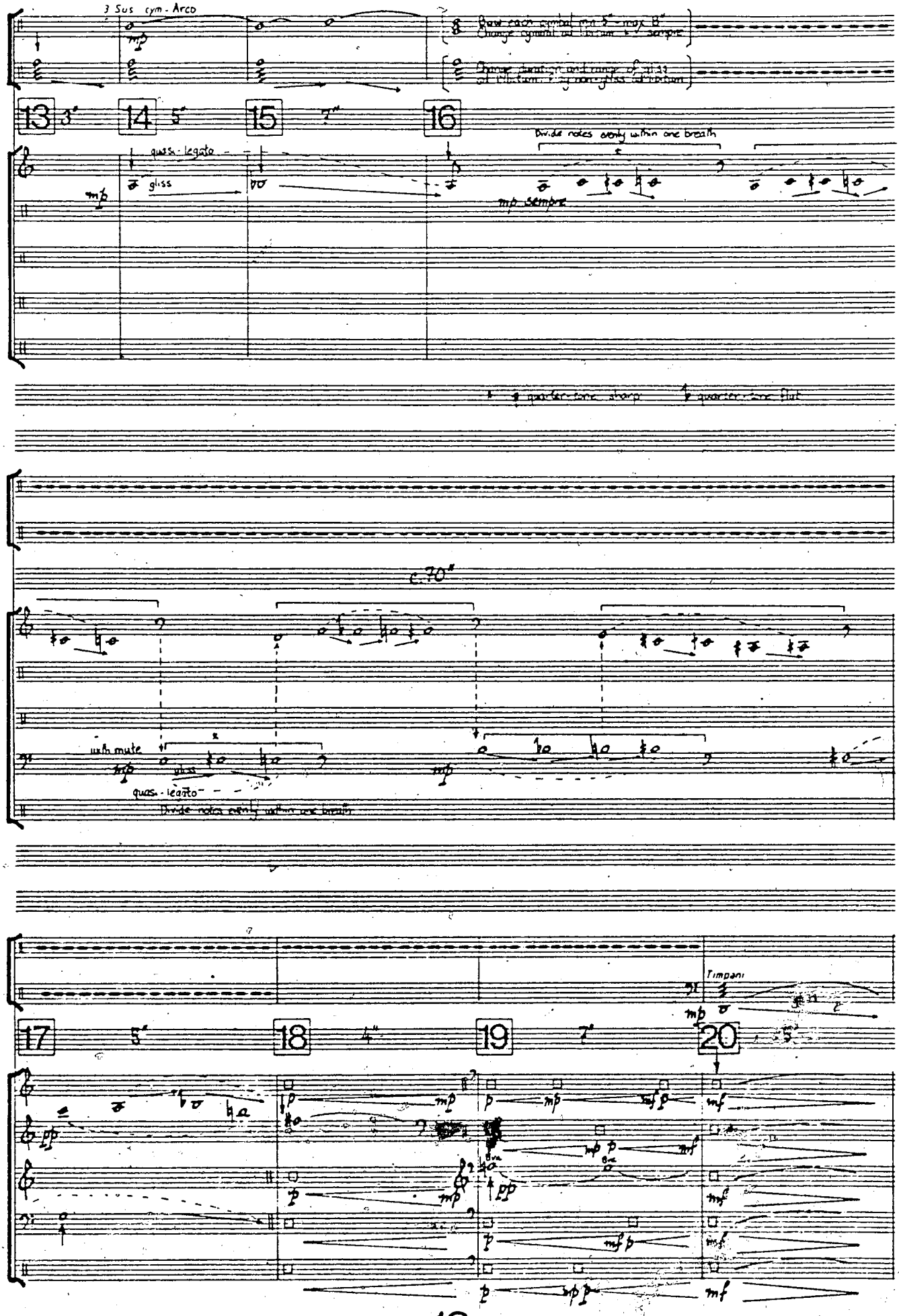

20
21
3
4
poco a poco cresc
poco a poco cresc
22
5
8
Temple blocks
Bongos
Tomtoms
Timp sticks
mf solo
poco a poco cresc
cresc
cresc
cresc

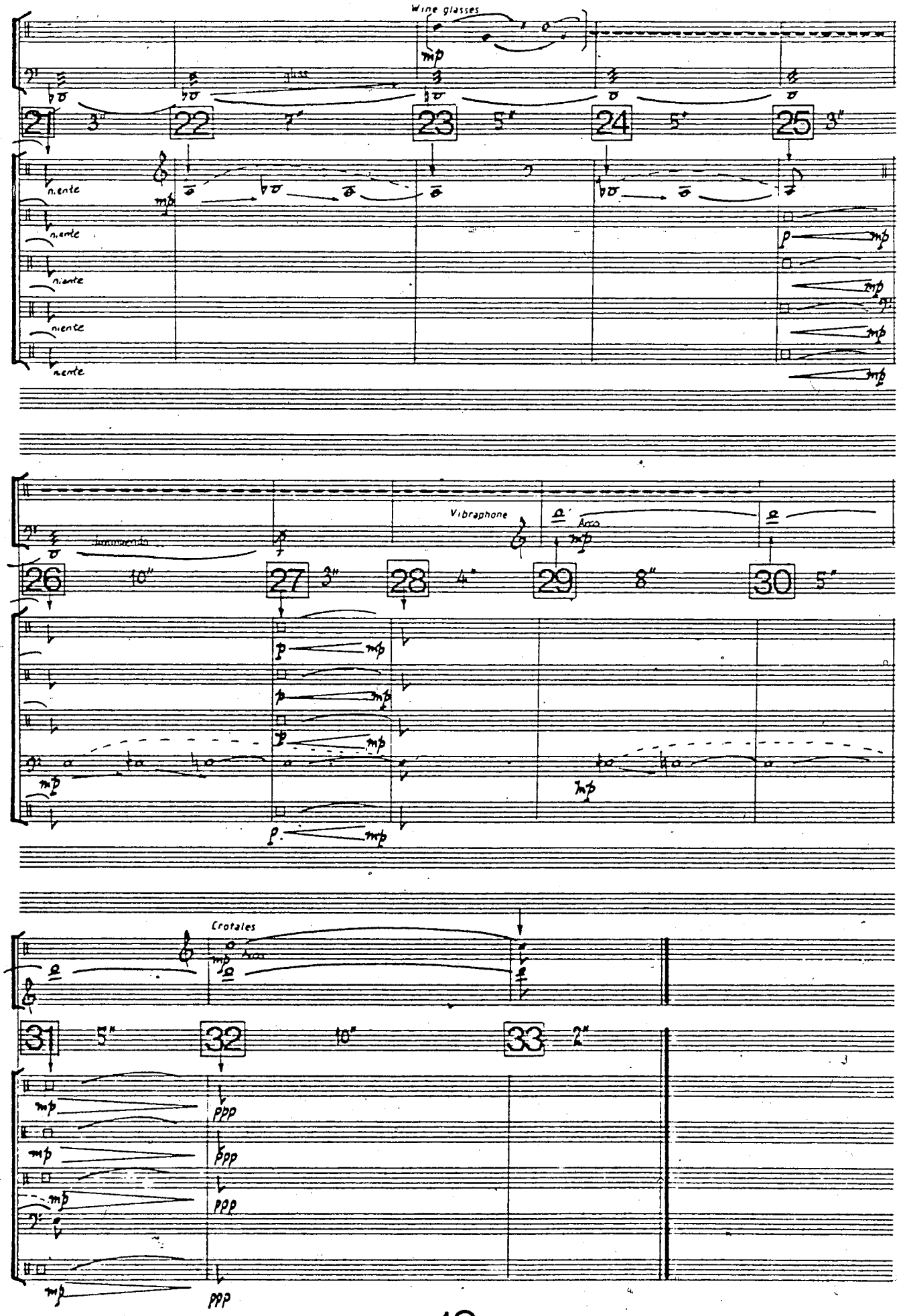

23
3
4
cresc molto
cresc
mf
f
mf
f
mf
f
mf
f
24
5
8
cresc
cresc
cresc
cresc
mf
mf
mf
mf solo
mf solo
mf solo
mf
f
f
f
f

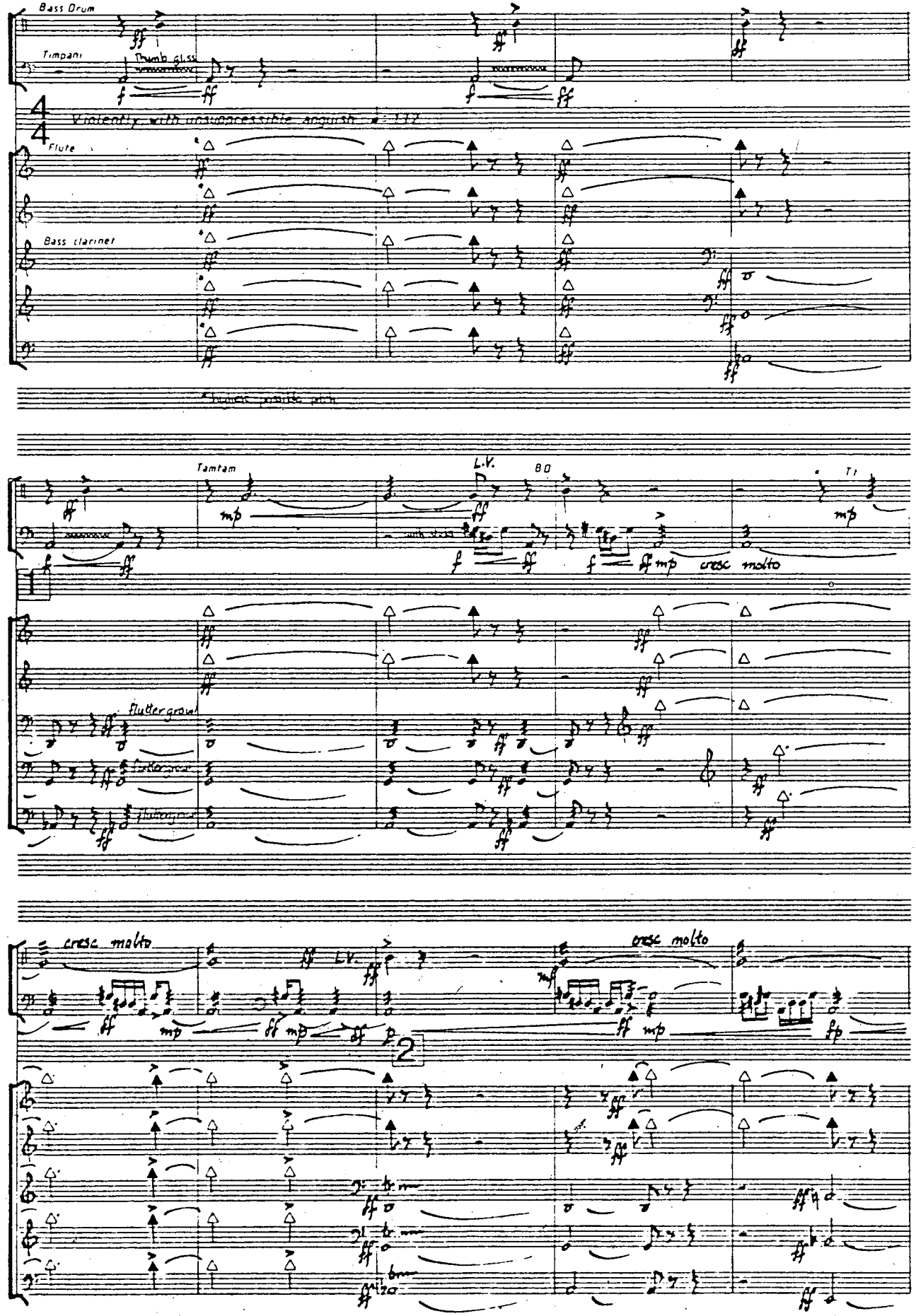

Xylophone
25
2/4
26
cresc.
cresc.
cresc.
mf sempre

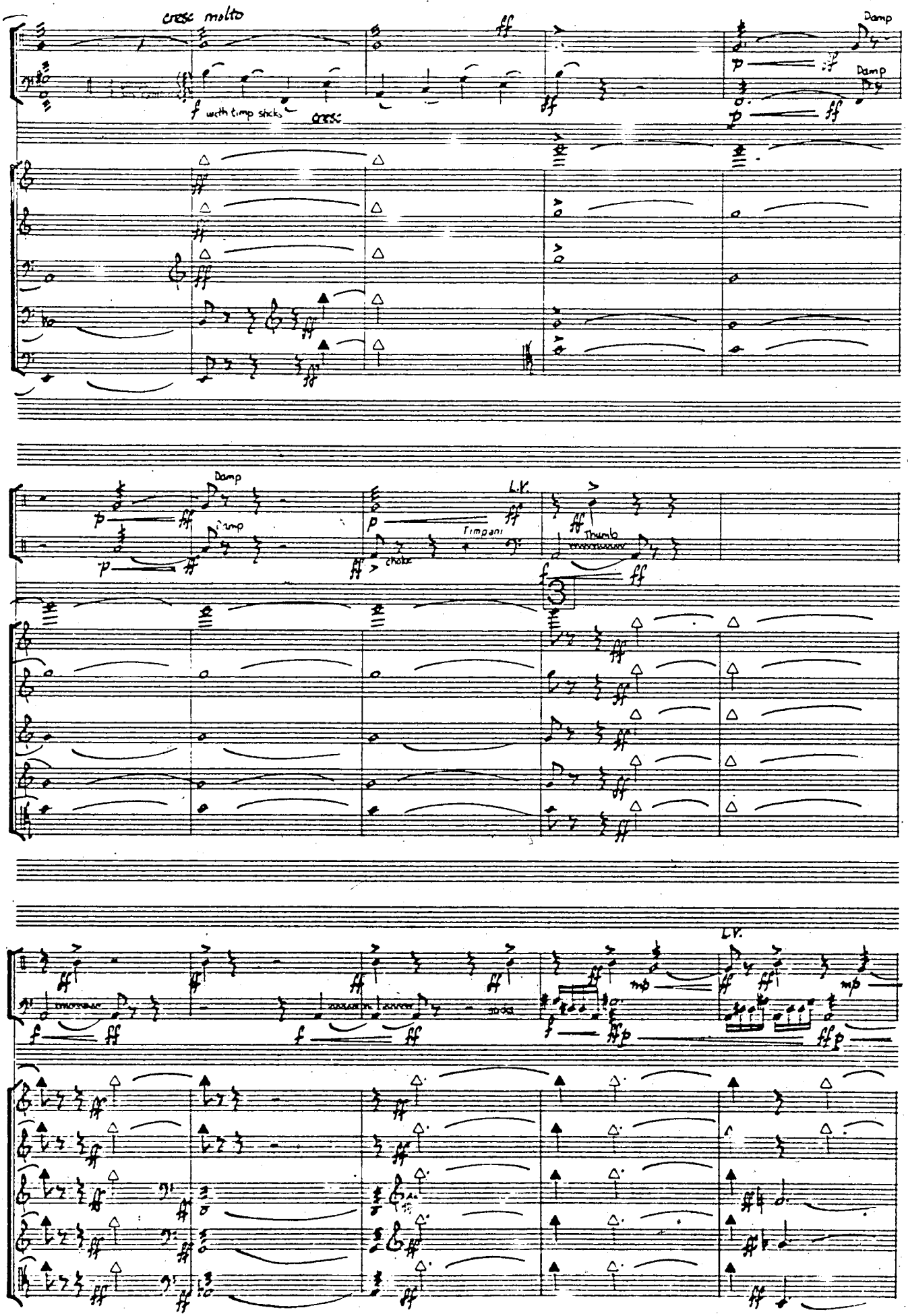

27
flutter
flutter
flutter
flutter

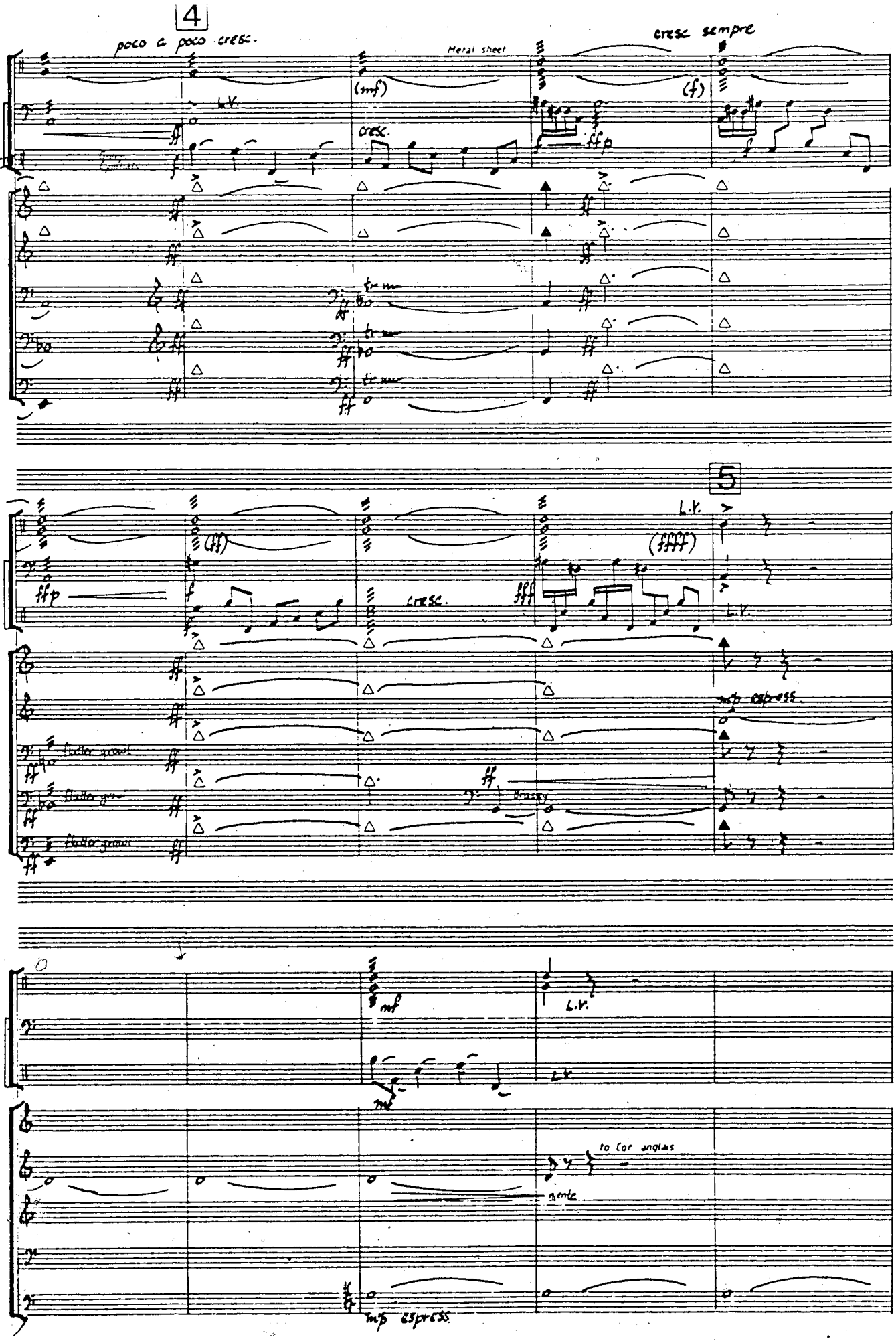

2 Crystal wine glasses **
Vibraphone
Arco
10" 1 8" 2 15"
Alto flute
* Repeat pattern until basson line ends. ** Tuned a major second apart.
Bass drum
stir with brushes
3 5" 4 10" 5 5" 6 4" 7 6"
* Blow air into instrument without creating a pitch
Cymbal suspended over timpani
glass with timp pedal
8 3" 9 12" 10 5" 11 6" 12 5"

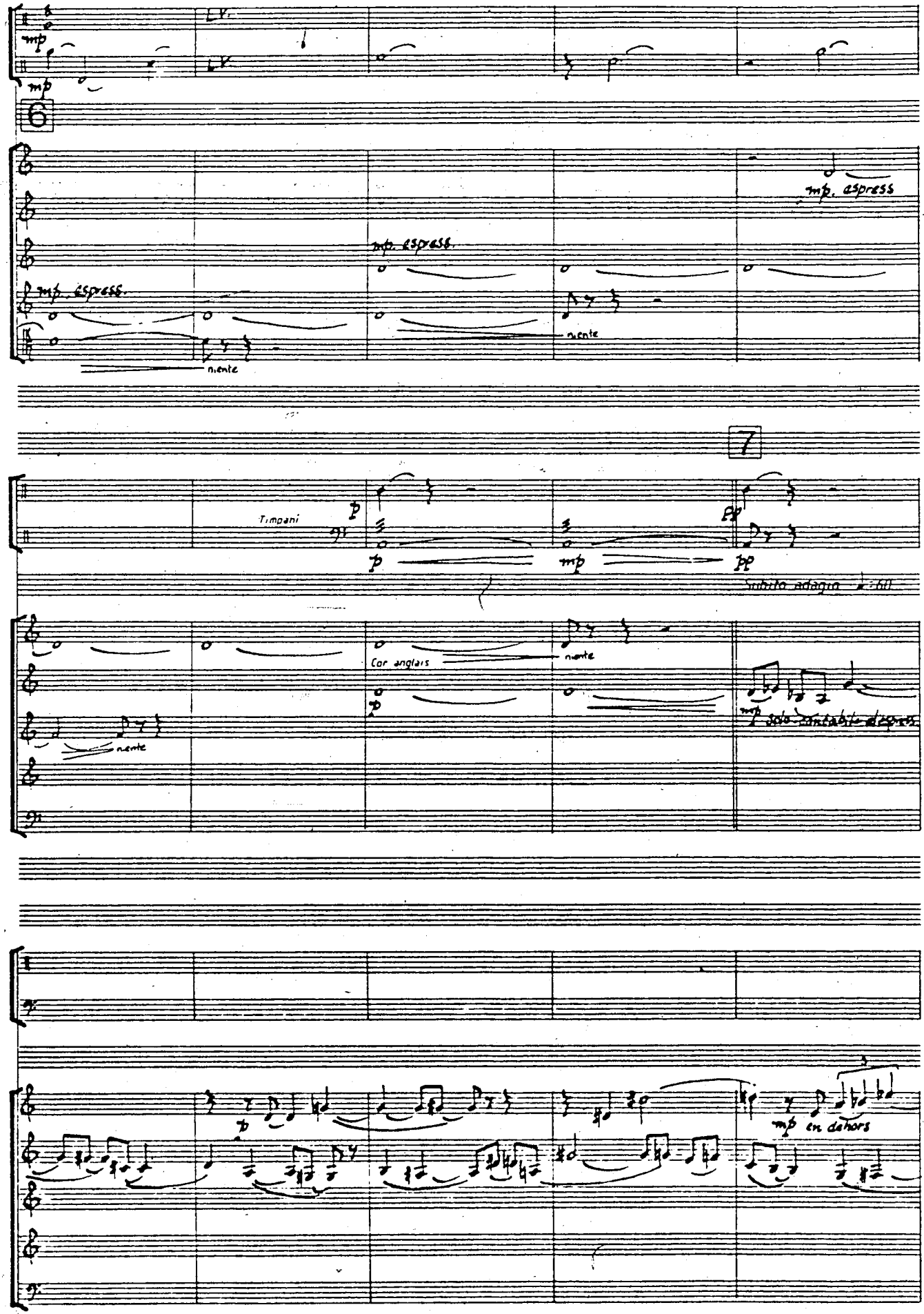

3 Sus cym - Arco
mp
Bass drum cymbal mm 5" - mm 8"
Change cymbal as before + sempre
Change beater and range of strike
as before + sempre
13 3"
14 5"
15 7"
16
quasi-legato
gliss
mp
divide notes evenly within one breath
mp sempre
quarter-tone sharp
quarter-tone flat
c. 70"
with mute
mp
gliss
quasi-legato
Divide notes evenly within one breath
Timpani
mp
17 5"
18 4"
19 7"
20 5"
pp
p
mp
mf
f

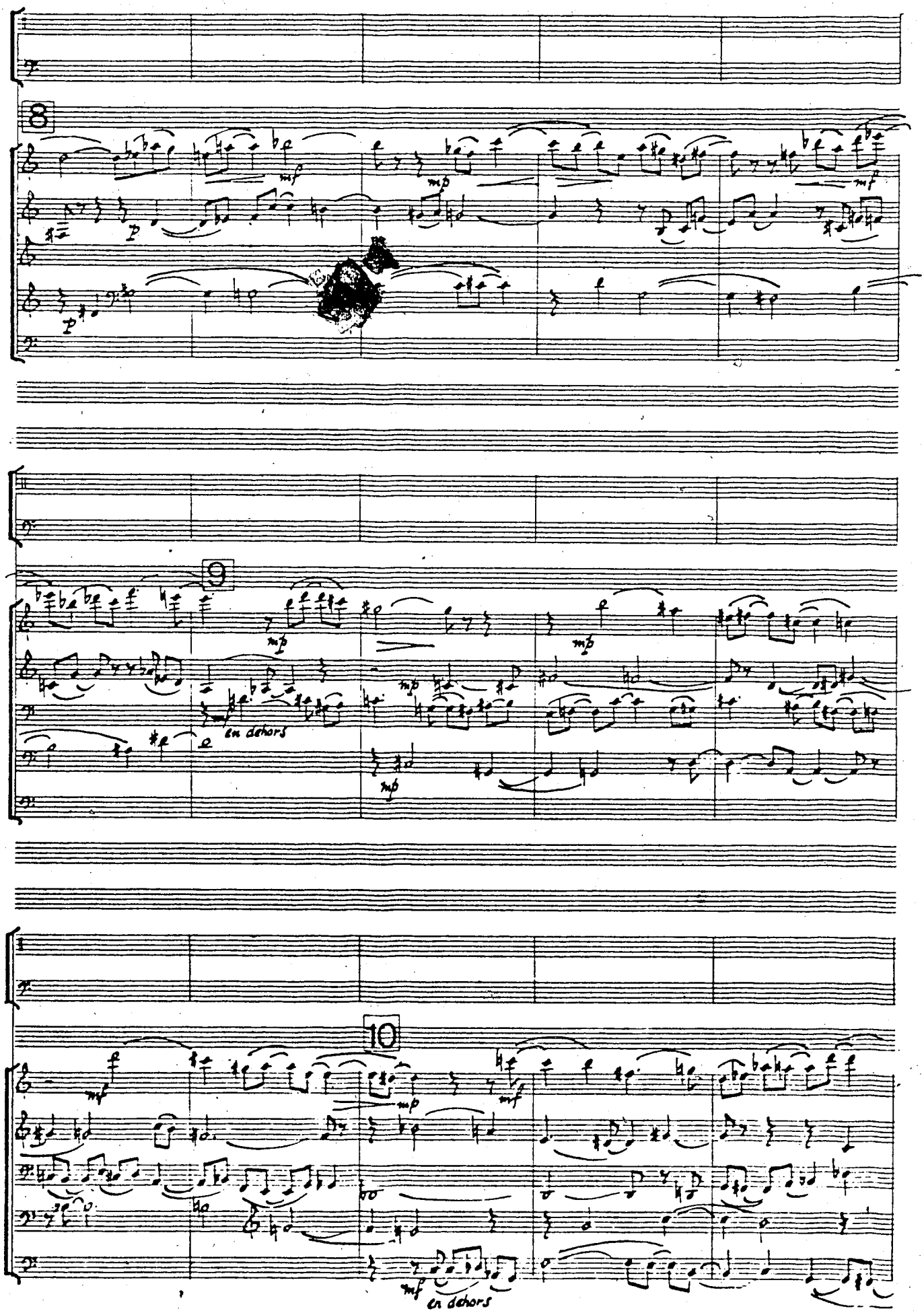

Wine glasses
21
3"
22
7"
23
5"
24
5"
25
3"
niente
Vibraphone
26
10"
27
3"
28
4"
29
8"
30
5"
Crotales
31
5"
32
10"
33
2"

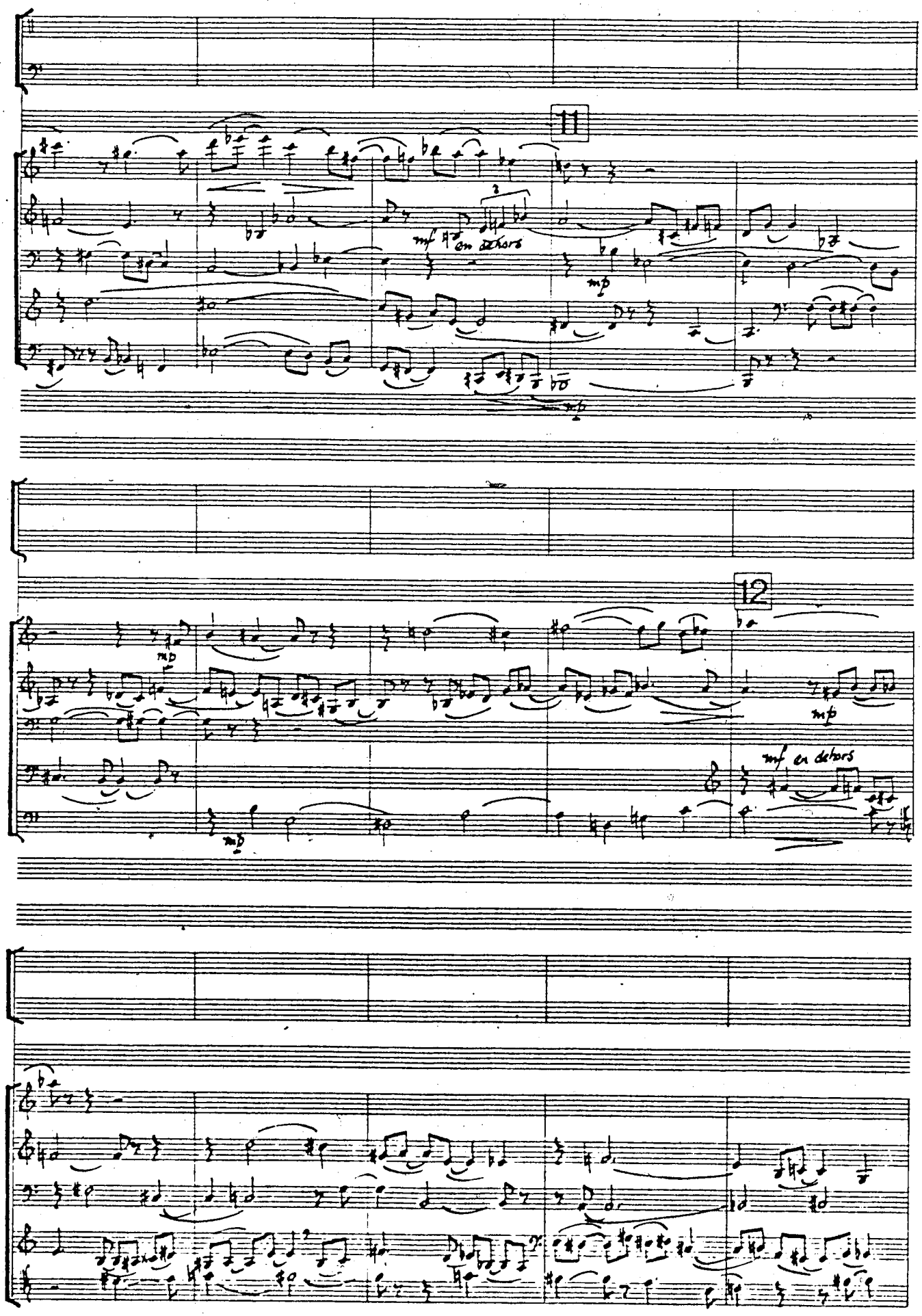

Bass Drum
Timpani
Thumb gliss
Violently, with unsuppressible anguish ♩ = 132
Flute
Bass clarinet
Tamtam
L.V.
Flutter growl
cresc molto
2

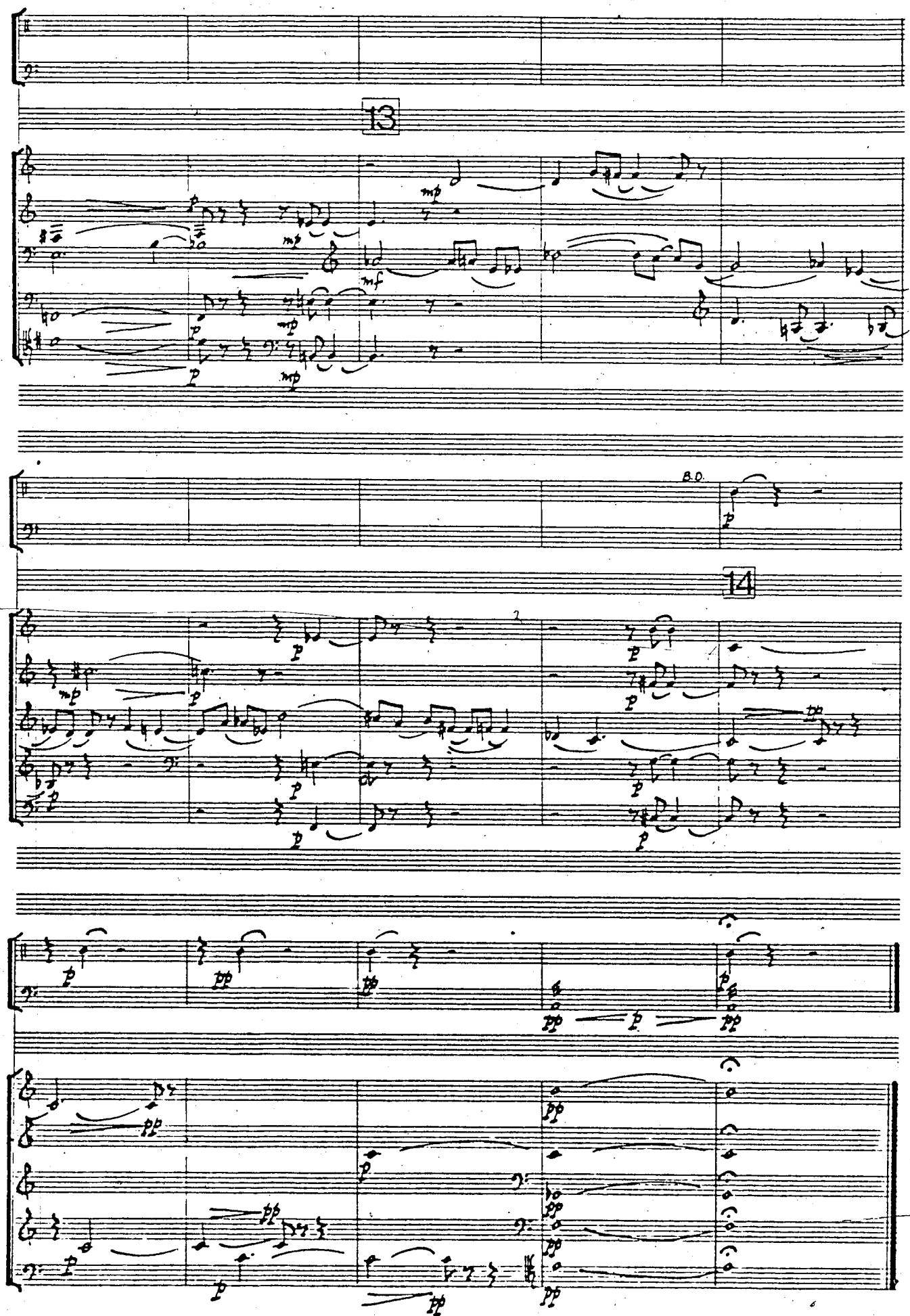

cresc molto
f with timp sticks
cresc
Damp
Damp
Damp
Timp
L.V.
Timpani
choke
Thumb
L.V.

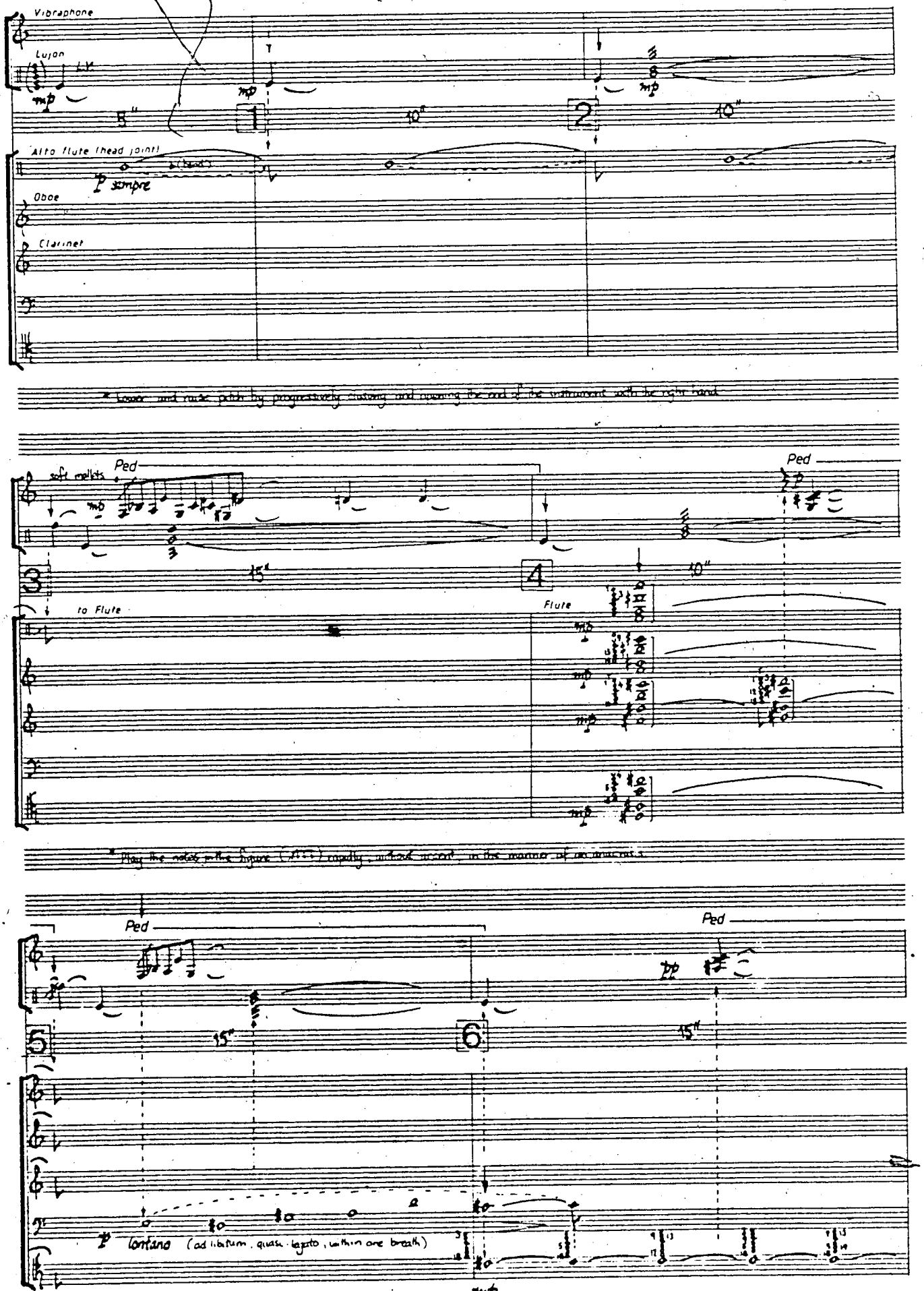

4
poco a poco cresc.
Metal sheet
cresc sempre
(mf)
(f)
L.V.
cresc.
ffp
5
(ff)
(ffff)
fff
mp espress.
Rullo grave
Brassy
0
mf
to Cor anglais
mente
mp espress.

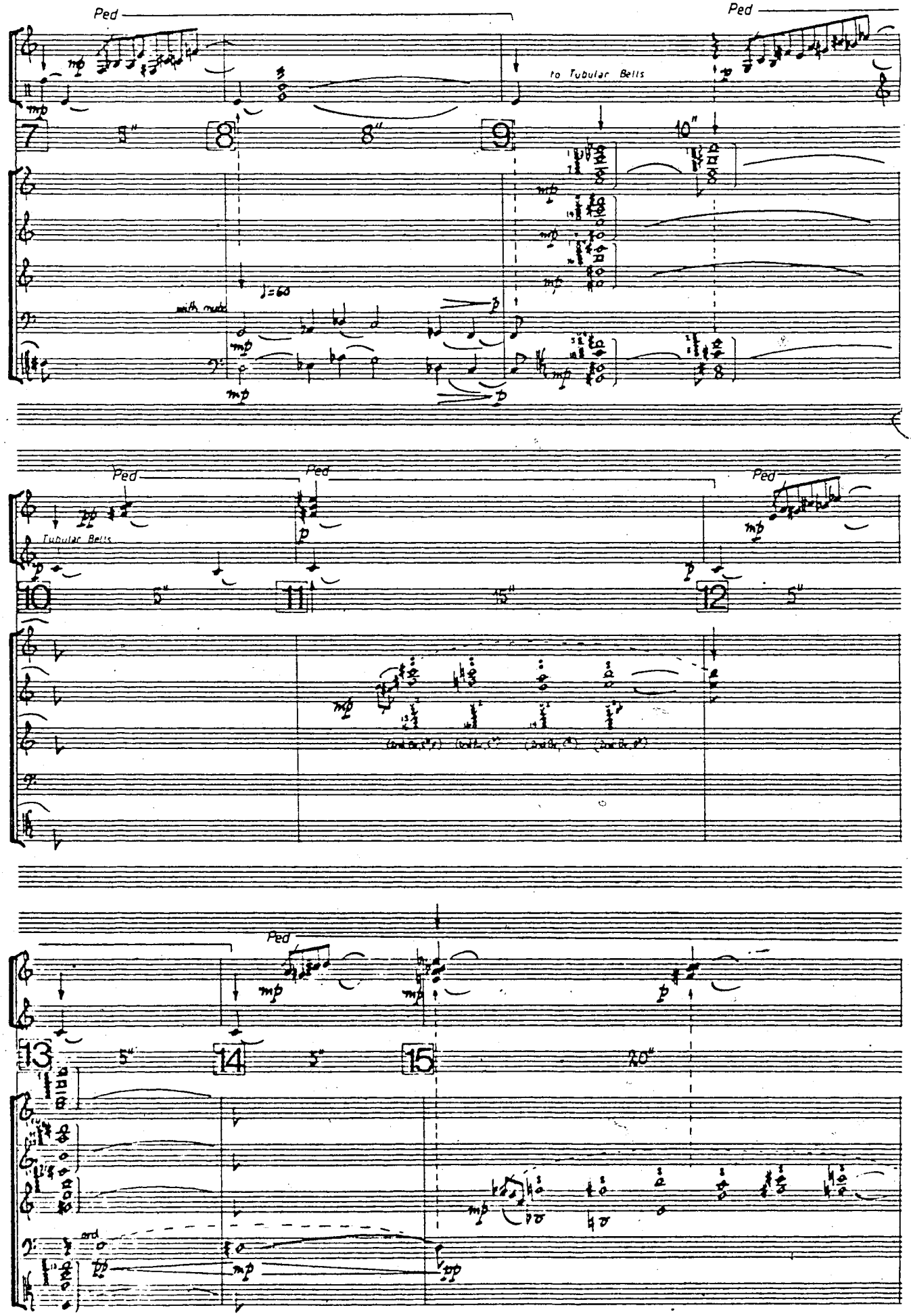

mp
6
mp. espress.
niente
7
Timpani
p
mp
pp
subito adagio
Cor anglais
mp dolce cantabile espress.
mp en dehors

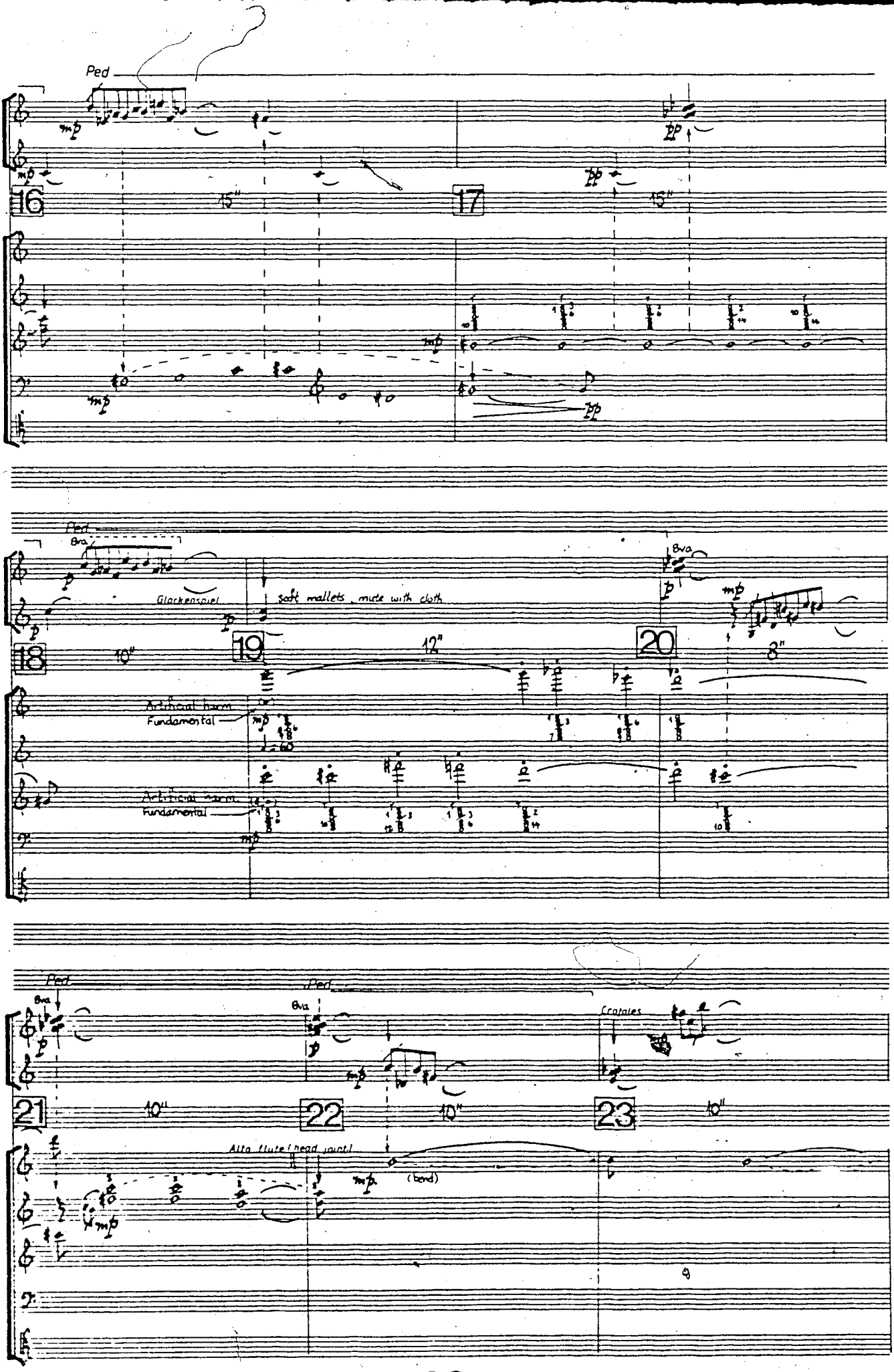

8
9
10
en dehors
en dehors

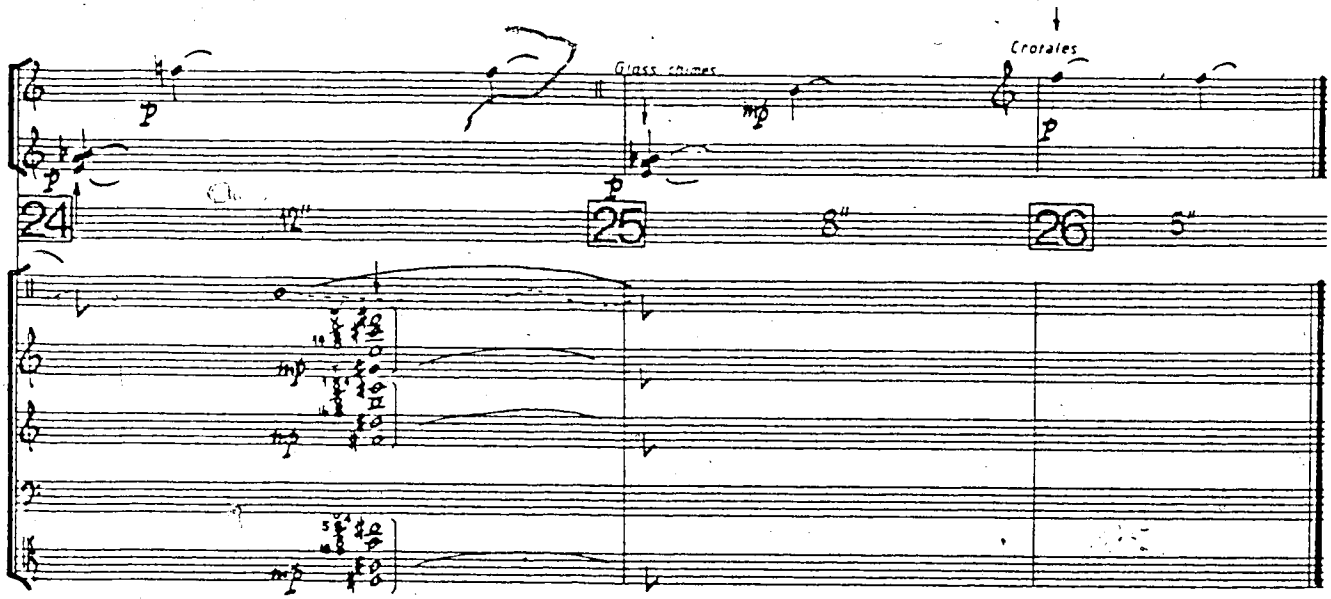

11
mf en dehors
mp
12
mp
mf en dehors

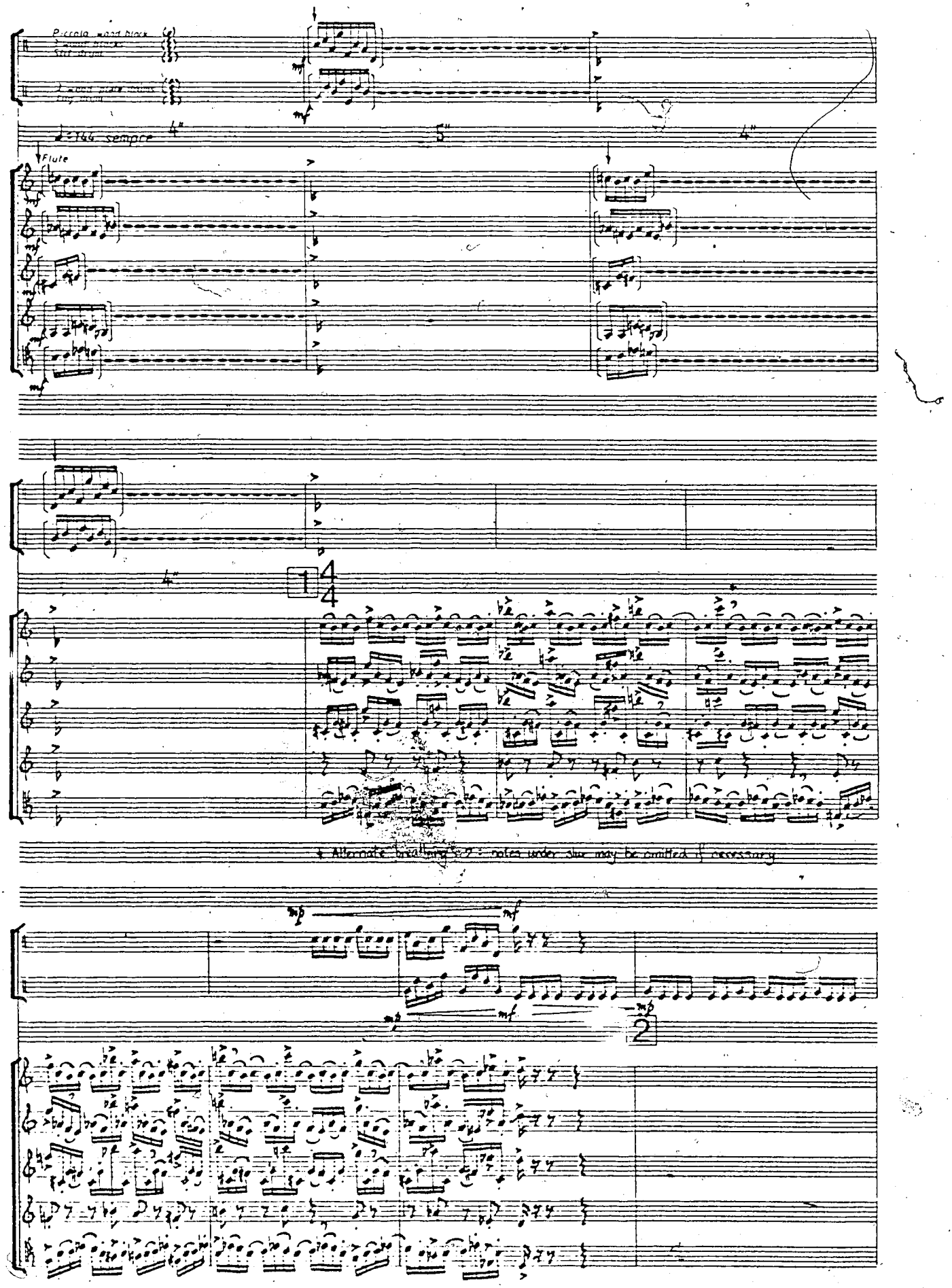

13
B.D.
14

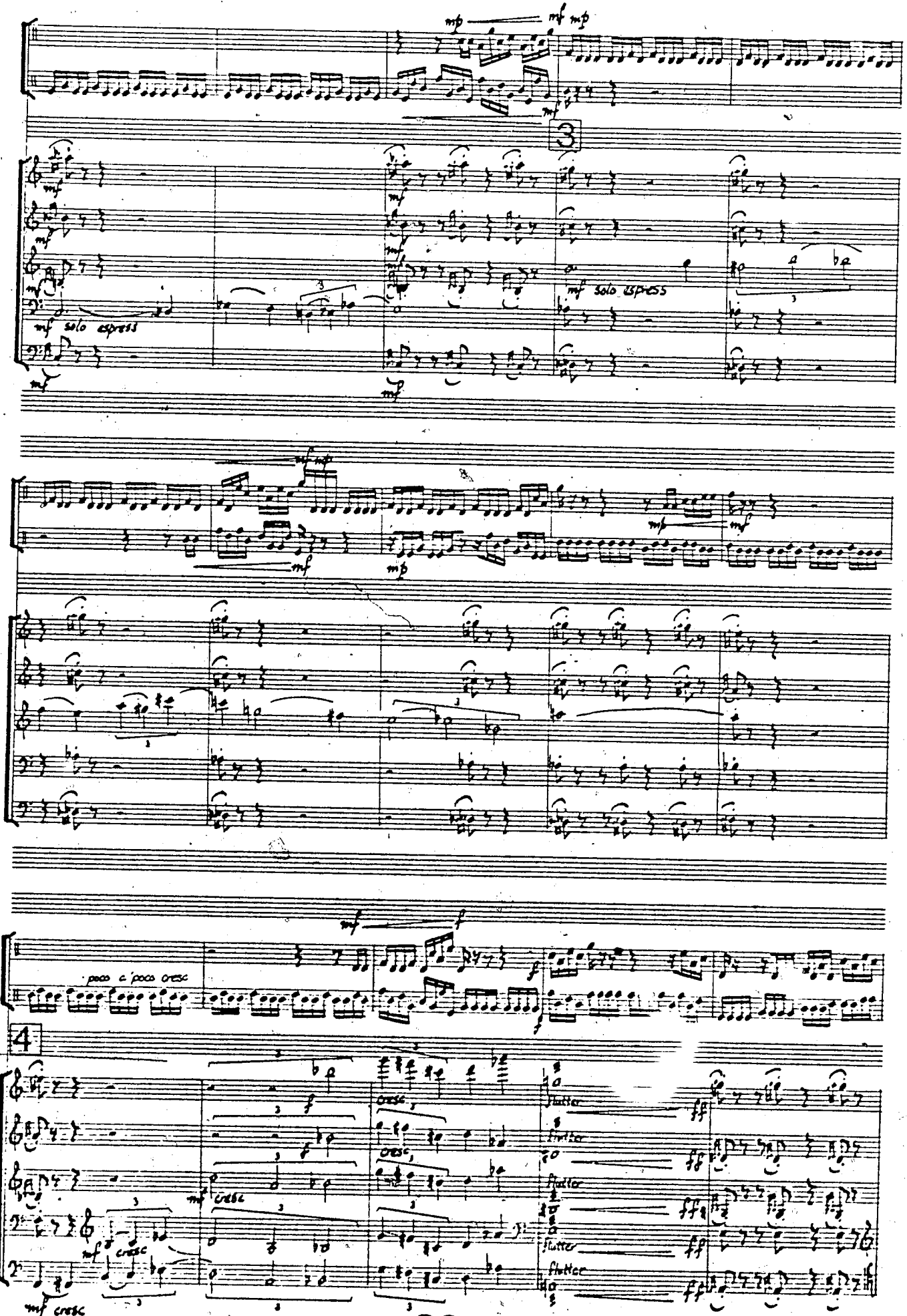

Vibraphone
Lujon
mp
5"
1
10"
2
mp
10"
Alto flute (head joint)
p sempre
Oboe
Clarinet
* Lower and raise pitch by progressively flattening and opening the end of the instrument with the right hand
Ped
soft mallets
mp
15"
3
4
10"
to Flute
Flute
mp
Ped
* Play the notes of the figure (A♭-C) rapidly, without accent, in the manner of an arpeggio.
Ped
5
15"
6
15"
Ped
pp
p lontano (ad libitum, quasi-legato, within one breath)
mp

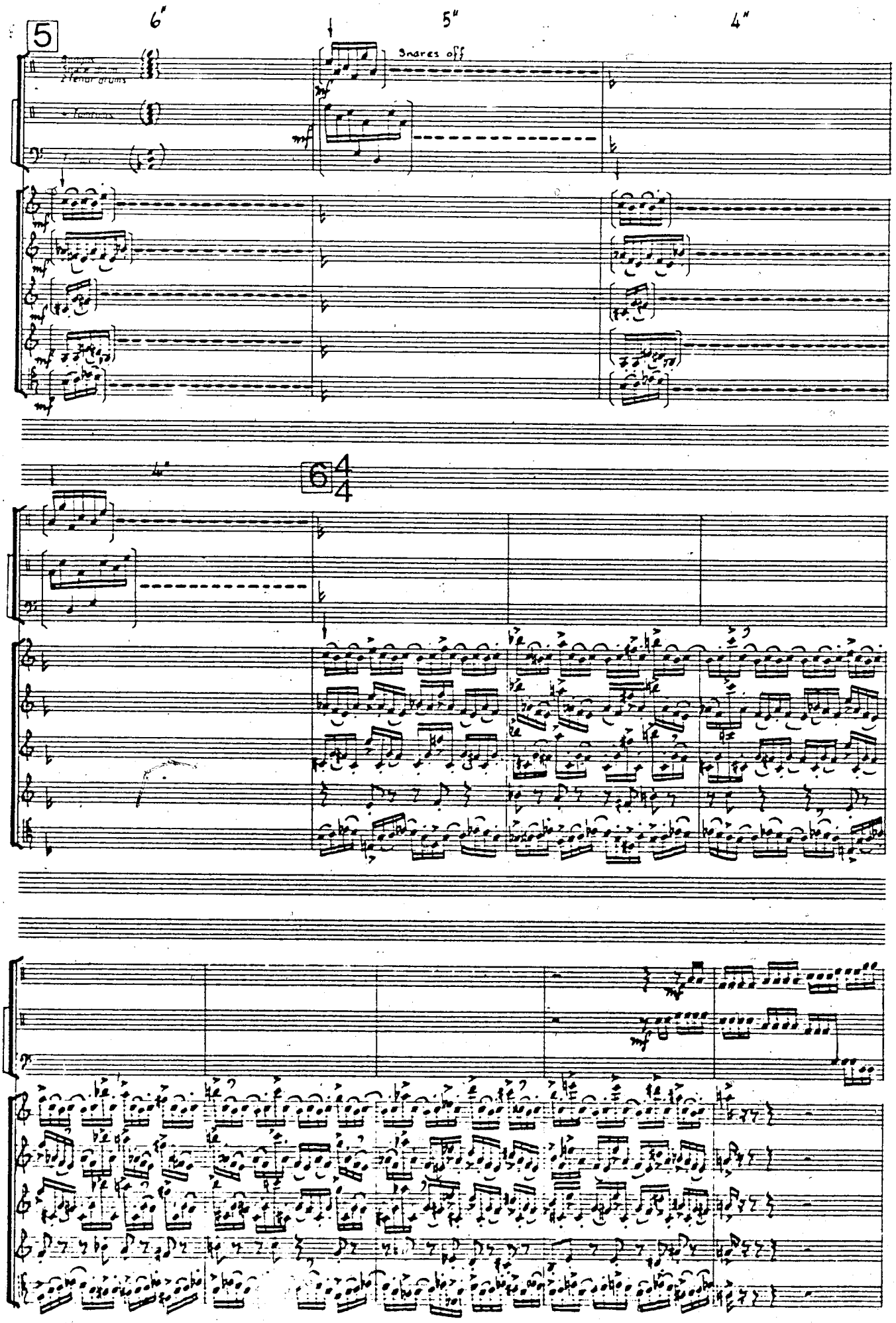

Ped
Ped
to Tubular Bells
7
8
9
10
♩=60
with mute
Ped
Ped
Ped
Tubular Bells
10
11
12
Ped
13
14
15
ord.

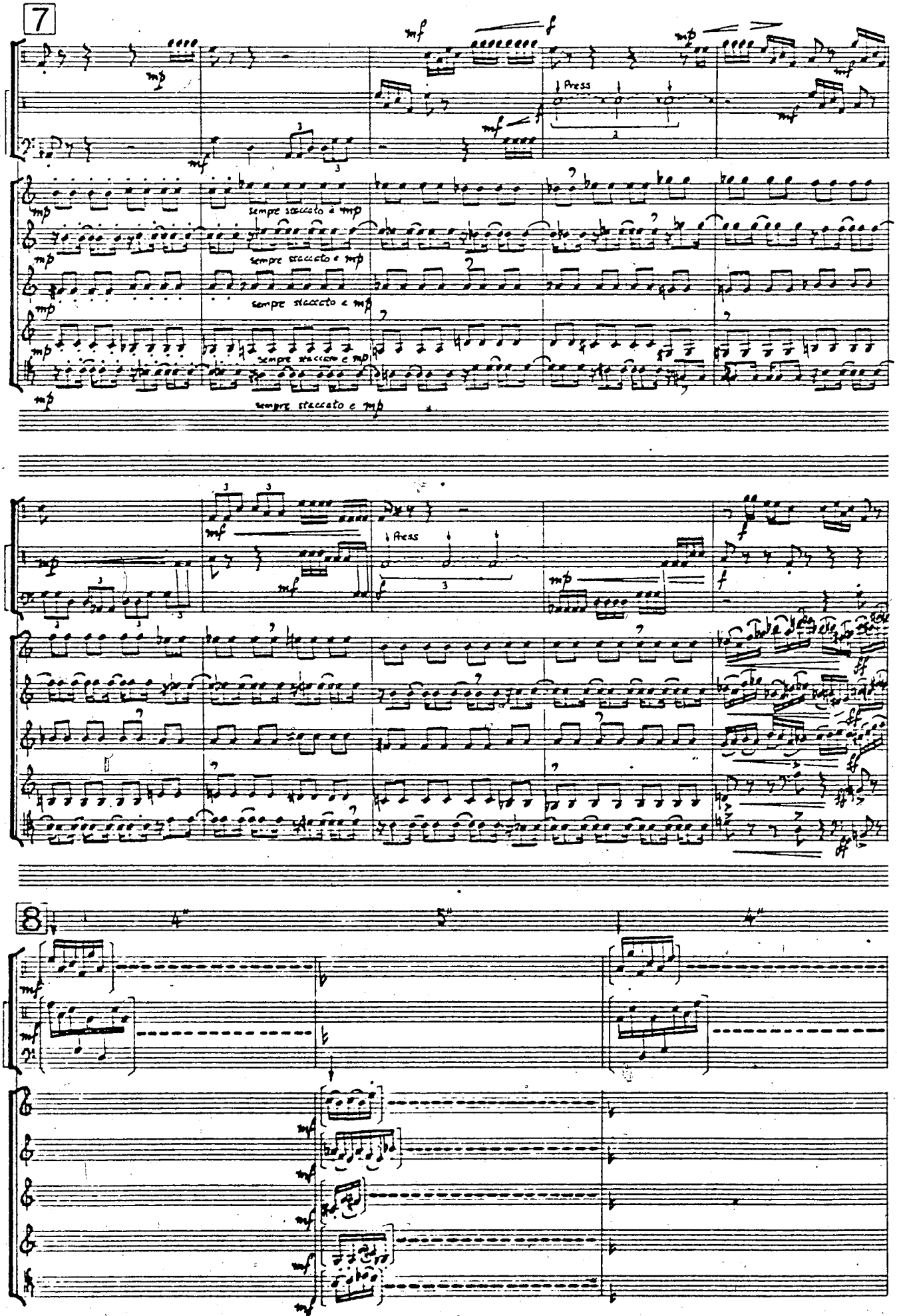

Ped
16
15"
17
15"
Ped
8va
Glockenspiel
soft mallets, mute with cloth
18
10"
19
12"
20
8"
Artificial harm.
Fundamental
Artificial harm.
fundamental
Ped
Ped
8va
8va
Crotales
21
10"
22
10"
23
10"
Alto flute (head joint)
(bend)

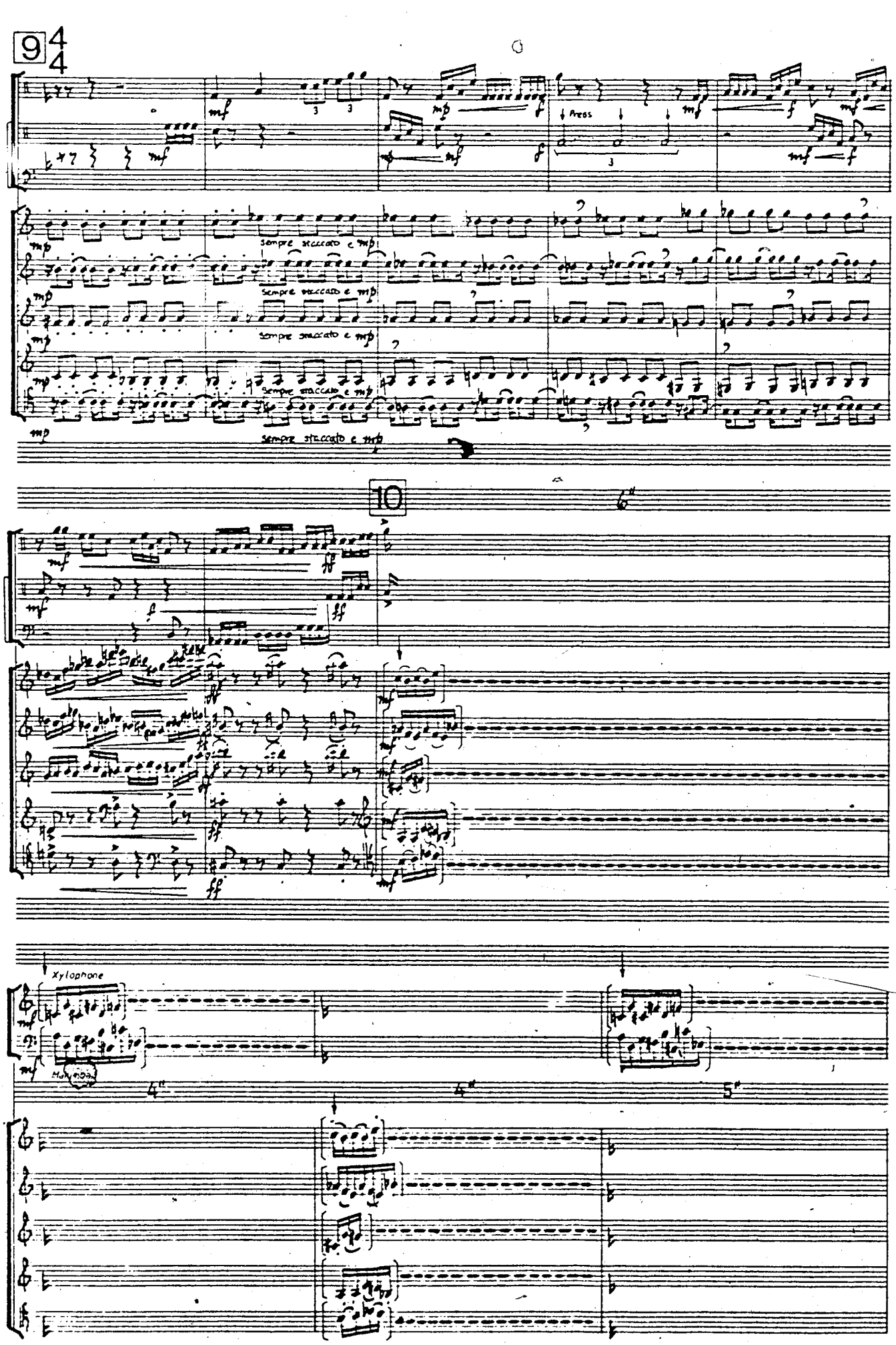

Glass chimes
Crotales
24
12"
25
8"
26
5"

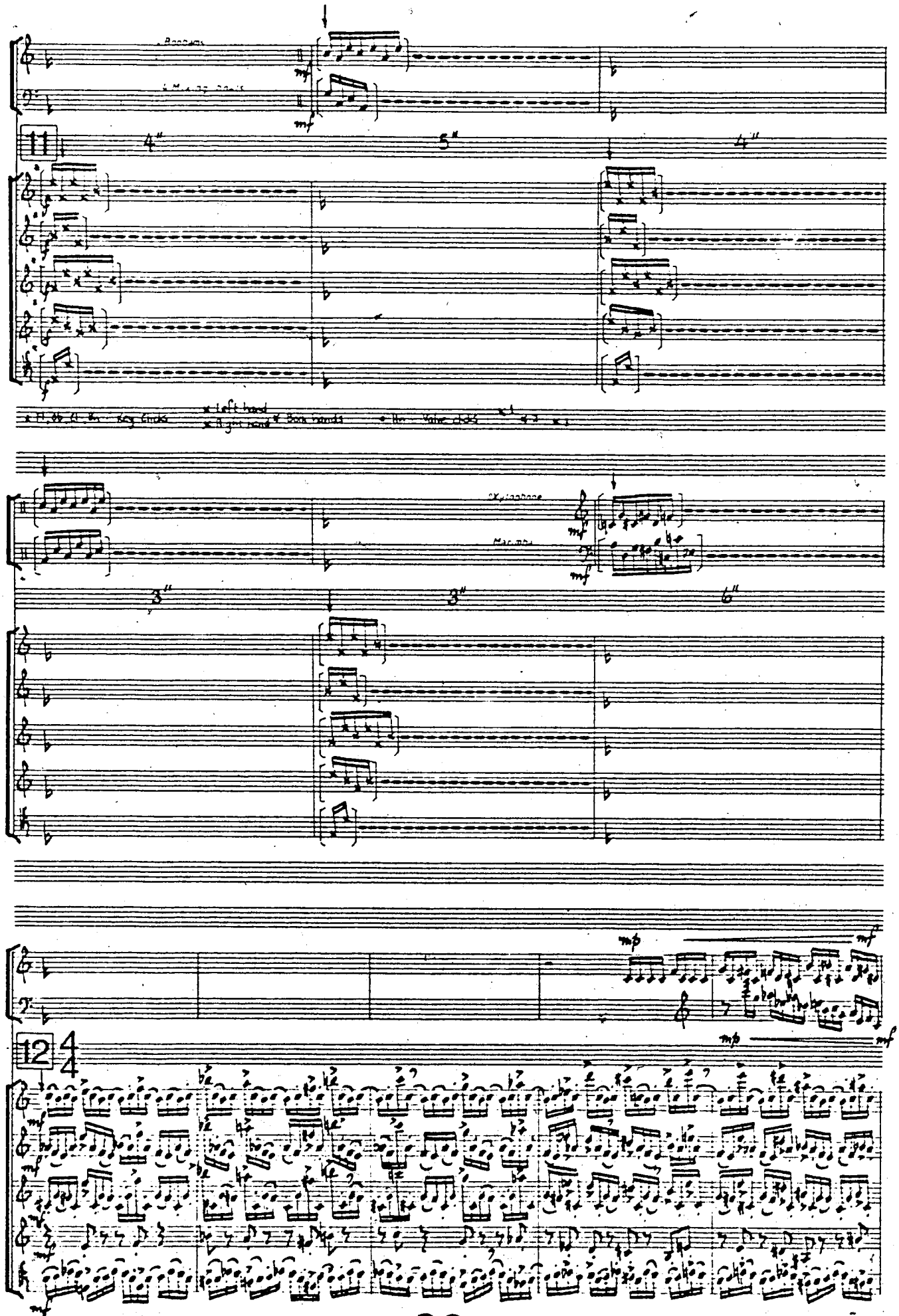

Piccolo, wood block
Snare drum
Tam-tam
Flute
sempre
4"
5"
4"
4"
1
4
4
* Alternate breathing ⅋ : notes under slur may be omitted if necessary
2

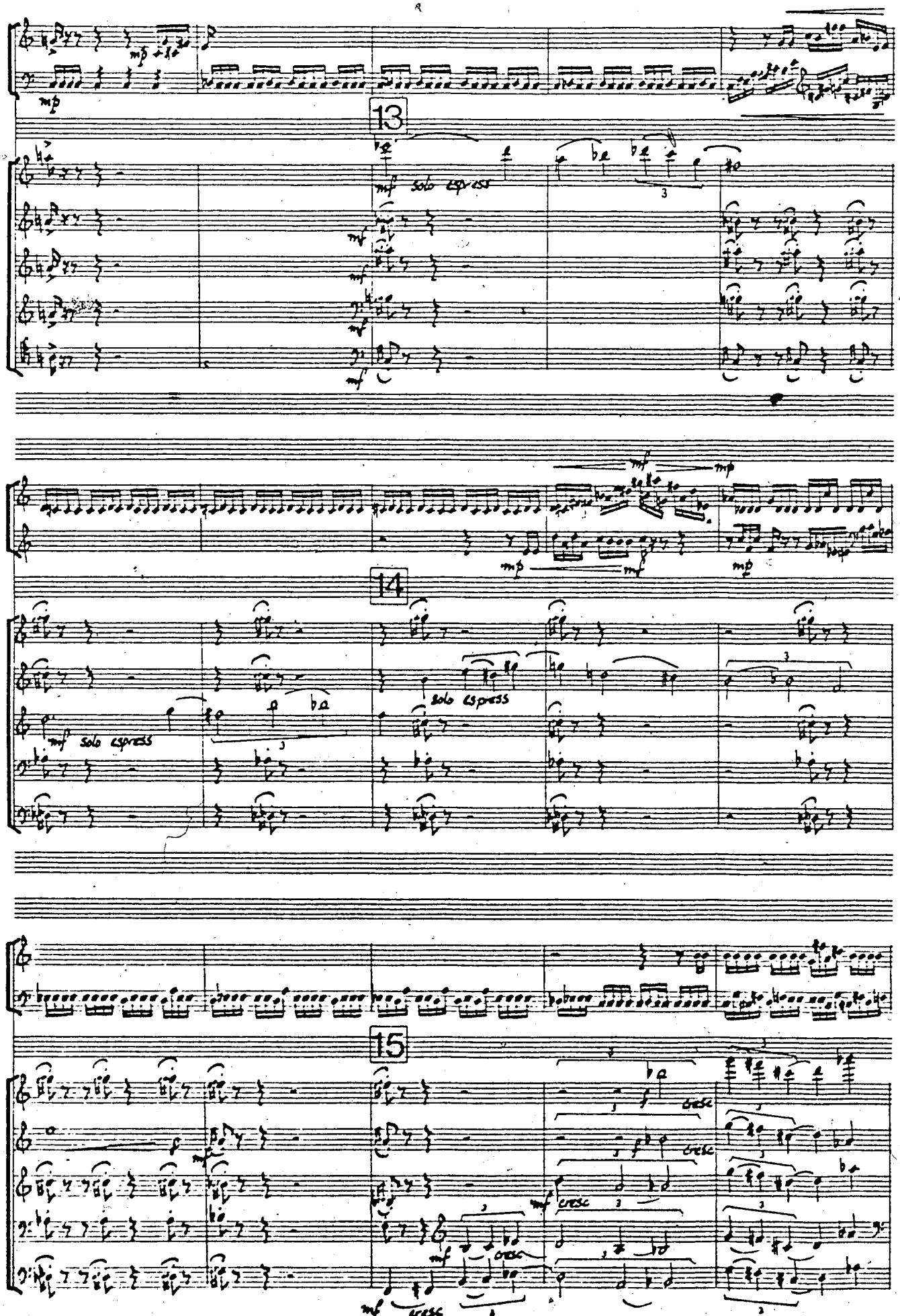

mf mp
3
mf solo espress
mf solo espress
poco a poco cresc
4
cresc
flutter
flutter
flutter
flutter
mf cresc

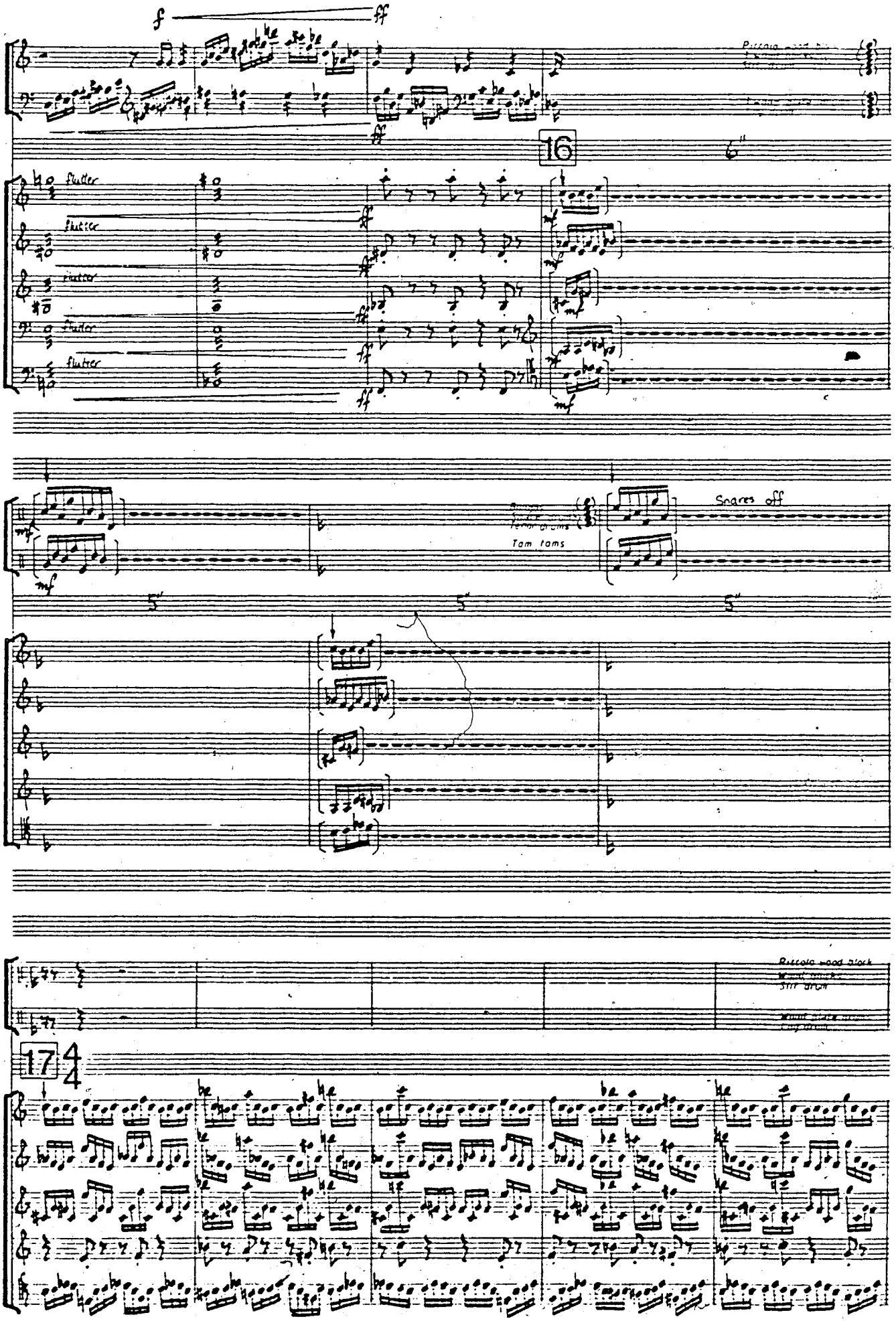

6"
5"
4"
5
Snares off
6
4
4

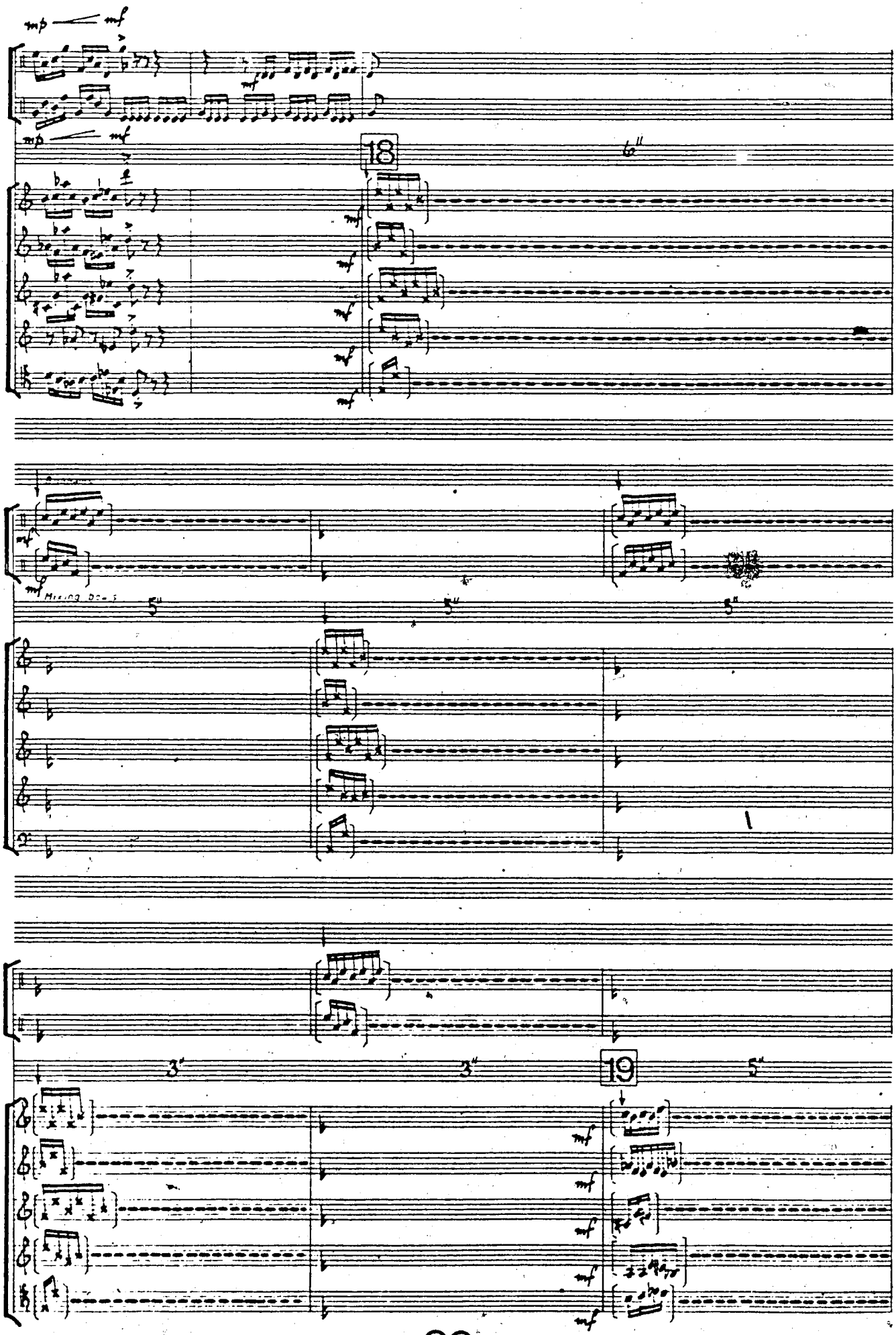

7
Press
sempre staccato e mp
8

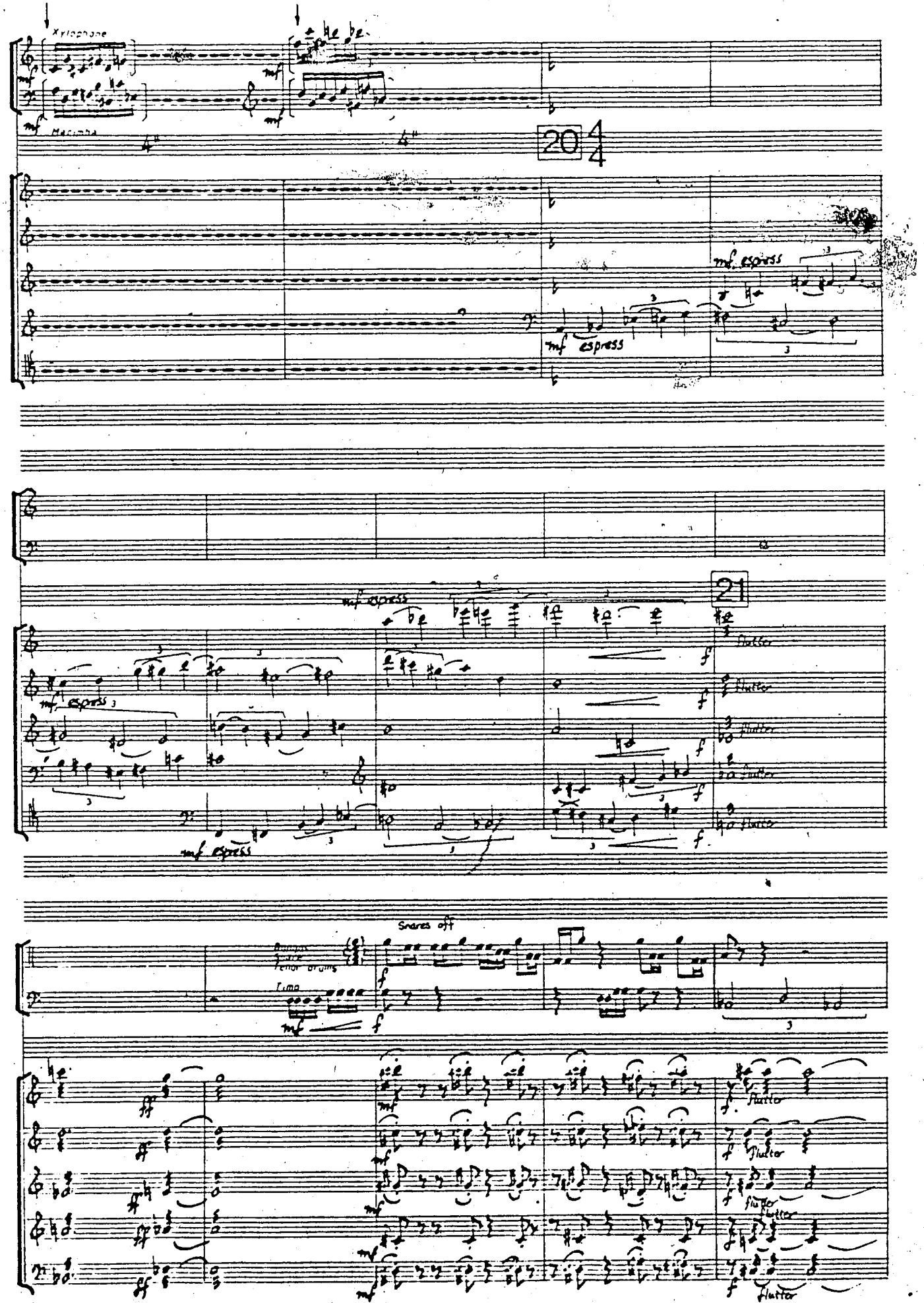

9/4
sempre staccato e mp
10
6"
Xylophone
4"
4"
5"

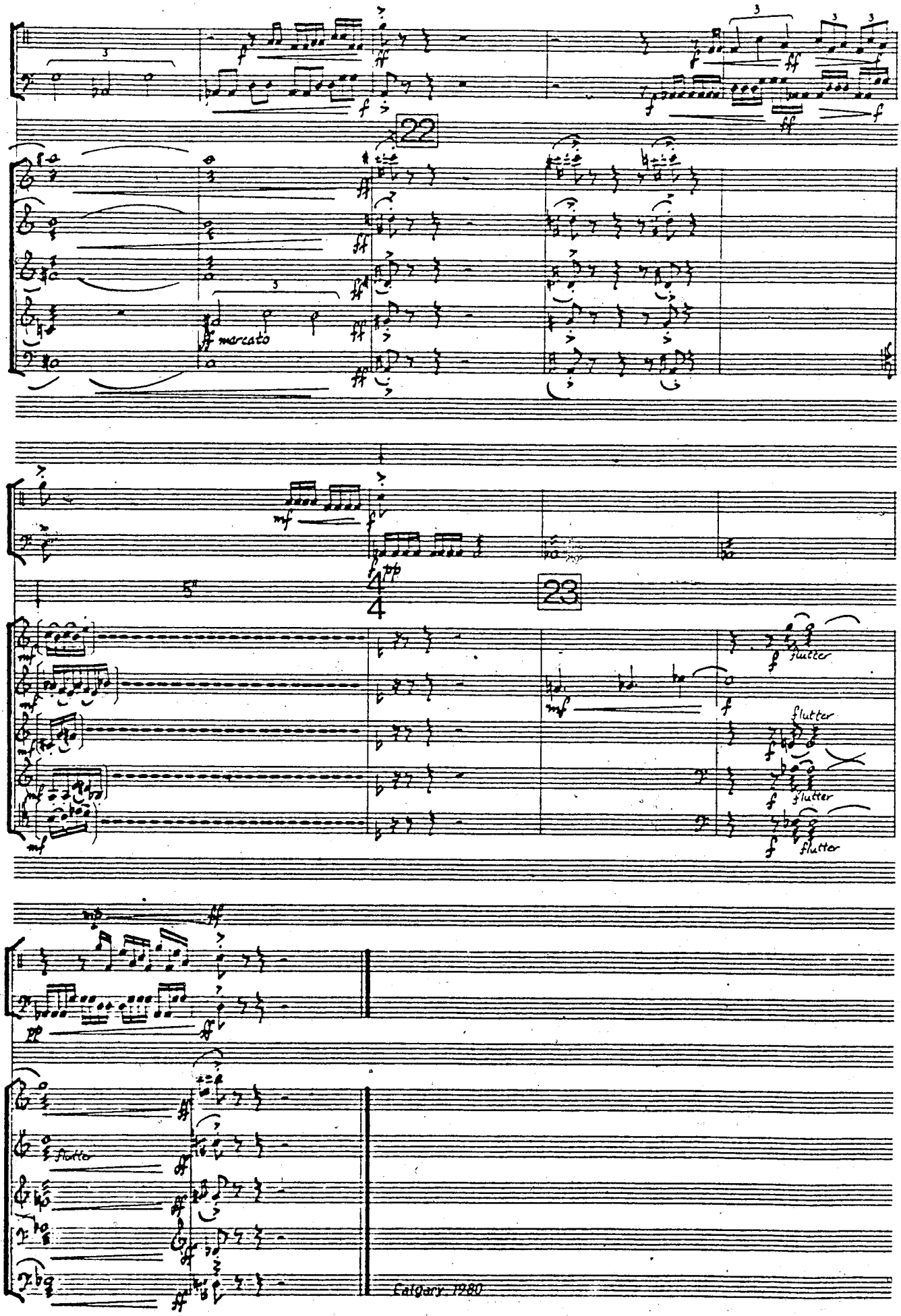

11
4"
5"
4"
Left hand
Right hand
Both hands
3"
3"
6"
12
4
4


13
mp
mf solo espress
14
mf
mp
solo espress
15
cresc

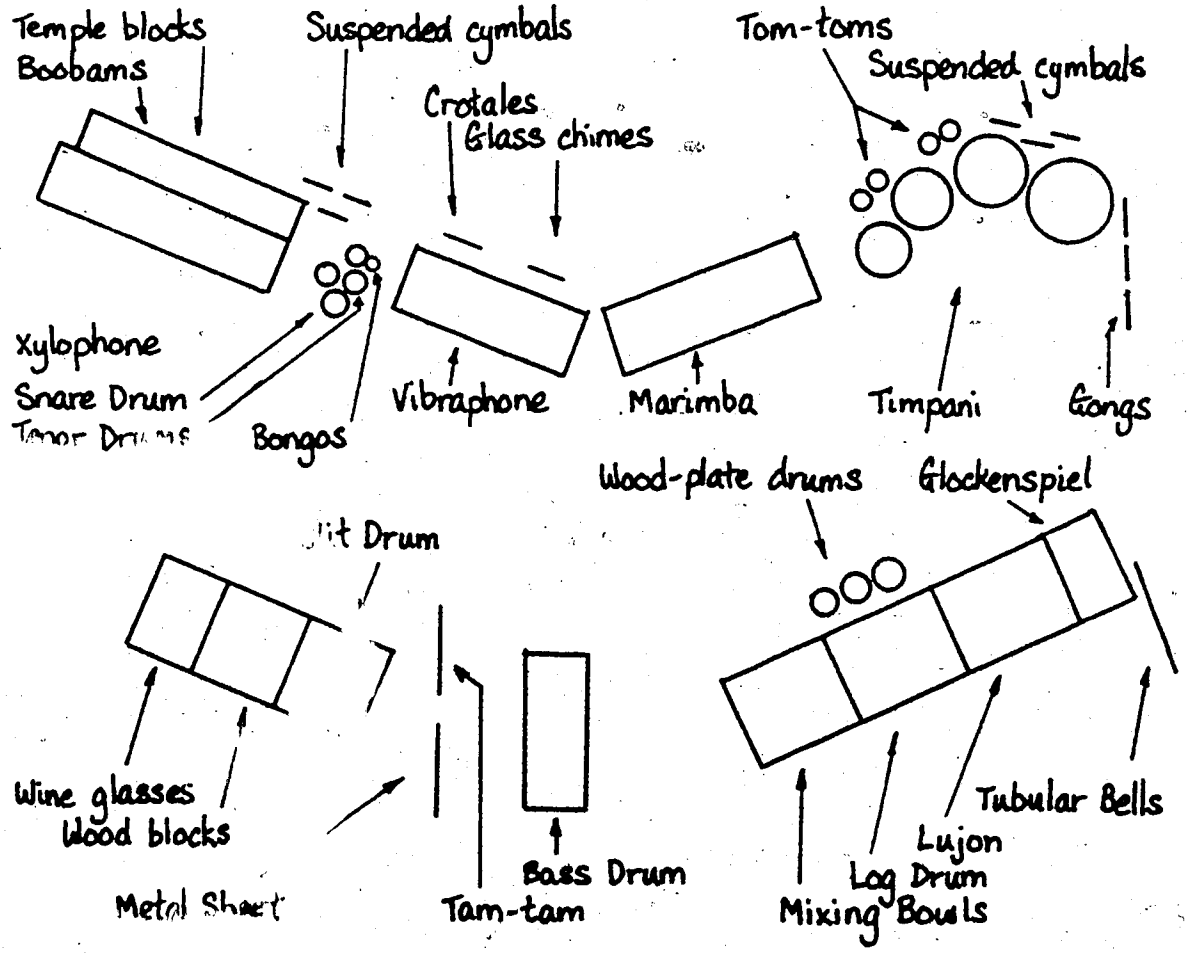

f
ff
Piccolo
16
6"
flutter
flutter
flutter
flutter
flutter
mf
Tom toms
Snares off
5"
5"
5"
Piccolo wood block
17
4
4


mp
mf
18
6"
Mixing Desk
5"
5"
5"
3"
3"
19
5"


Xylophone
Marimba
20
4/4
mf espress
21
Flutter
Snares off
Timp
Tenor drums


22
marcato
23
flutter
flutter
flutter
flutter
flutter
Calgary 1980

Percussion Layout

Audience

Quintet