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Commentaries for works submitted for the PhD degree in Composition at Durham University, 1981.

bу

David Morris.

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Throughout these commentaries, notes have been numbered to facilitate charts and matrix diagrams. The following system was used:-

$$C C^{\sharp} D E^{\flat} E F F^{\sharp} G A^{\flat} A B^{\flat} B$$
 $O I 2 3 4 5 6 7 8 9 IO II$

Also, in these diagrams, the letters C and R stand for column and row.

Generally, in the works in this folio, I have been concerned with problems of harmonic progression and unity. The larger part of each commentary is therefore taken up with describing the methods I have used to solve such problems.

Little mention has been made of rhythmic structuring, unless a specific system has been used: otherwise the rhythmic flow acts to articulate other musical ideas.

Piece for a Week-end.

Easter 1978.

Flute, clarinet, viola and 'cello.

Written for the S.P.N.M. week-end in Durham.

Performed there and in a Purcell Rooms concert later that year.

The main motivation behind this piece, lay in bringing together two contrasting types of material; infact one type is modulated until it becomes the other. The two types used were:-

- i). Melodic line with chordal accompaniment, ($\frac{1}{2}$ =90)
- ii). Polyphonic sections, (⋅ =IIO).

The chordal accompaniment, in the first type, begins in strict rhythmic unison. Gradually, during the course of the piece, the chords begin to move 'out of line' vertically; that is, no longer in rhythmic unison. This process continues until the chordal sections, (type i), have taken on more and more of a polyphonic nature, in the style of type ii.

There are four sections of type i, and in each of these a different instrument takes the melodic line, culminating in the last of these sections where a solo 'cello plays unaccompanied.

The polyphonic sections progressively increase their number of participants from two to four players.

The ordering of the sections is given below:-

- \blacksquare . bar I-22 Type i) Clarinet melody \triangleleft = 90

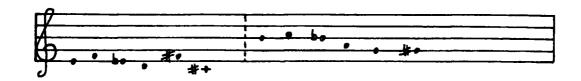
- \boxed{D} bar 58-73 Type i) Flute melody $\stackrel{\bullet}{\bullet}$ = 90
- E bar 74-90 Type ii) Flute, clarinet and viola polyphony d = IIO
- F bar 90-I02 Type i) 'cello melody (unaccompanied)

 d = 90
- G bar IO3-I24 Type ii) Flute, clarinet, viola and 'cello polyphony

d = IIO

H bar 125-127 Cods, in free time, l = c.90

The basic set or row used in this piece is given below:-



It can be seen that the two hexachords fill complementary six note clusters; also that they both, especially the first, move in a wedge shape.

By inverting the basic row about its prime note, E, the following matrix of row against inversion is formed.

	CI	C2	C3	C4	C5	C6	C7	c8	C9	CIO	CII	CIE	
RI	L _i	5	3	2	6	I	II	0	IO	9	7	3	
R2	3	4	2	I	5 ·	0	OI	II	9	8	6	7	
R3	5	6	4	3	7	2	0	I	II	IO	8	9	
R4	6	7	5	4	8	3	I	2	0	II	9	IO	
R5	2	3	I.	0	4	II	9	IO	ટ	7	5	6	
R6	7	8	6	5	9	4	2	3	I	0	IO	II	
R7	9	IO	8	7	II	6	Ŀ	5	3	2	0	I	
R3	8	9	7	6	IO	5	3	4	2	I	II	0	
R9	IO	II	9	ප	0	7	5	6	<u>1</u> ;	3	I	2	CI

I 8 6

9

8 OI

Matrix I

RIO II O

Ι

RII

RI2 O

2

During the course of my PhD studies with David Lumsdaine, we looked at the associations between rows derived from one another by a process of pitch class multiplication. In this piece I used three further matrices, each based on a row derived from the initial row, RI, by such a method. The new rows were derived as follows:-

9

8

6

IO 9

5

3

3 II

- R2. Multiply each pitch class number in RI by seven, then add six; ie. transpose result up an augmented fourth.
- $\underline{R3}$. As $\underline{R2}$ but without any transposition.

IO 9

0

ΙI

II

IO 2

3

<u>R4</u>. Multiply each pitch class number in <u>RI</u> by five; then add four; ie. transpose result up a major third.

The resulting rows show many similarities in pitch class sequence, and so help to produce like areas of thematic material and harmony. To further enhance these similarities, the first notes of $\underline{R2}$ and $\underline{R4}$ were changed to Es, so that each ensuing matrix had the same axis of symmetry.

The four rows are given below, followed by the matrices based on R2, R3 and R4:-

RI I ΙΙ 0 IO 9. 7 Ι II R2 IO C L; \mathcal{S} II 9 IO Ι 3 8 Ι IO 9 ΙI

Matrix 2

C2 C3 C5 C6' C7 С8 CI C4 C9 CIO CII CI2 · 9. RI IO Ι II R2 II IO I R3 ΙΙ Ι IO ΙO II IO Ι R4Ļ ΙO I II R5 I IO R6 IO ΙI R7 ΙO 8RI II ΙO I ΙI R9 Ι RIO II IO II II IO Ι ΙΙ Ι RII I Ι ΙI RI2 6 ò Ŀ

Matrix 3

C6 C7 c8 C9 CIO CII CI2 C4 CI C2 C3 8 . RIΙI IO Ι R2 IO Ι II S IO Ι R3 ΙI Ļ IO R4 Ι II IO Ι II R5 IO R6 I II I R7 IO II C R8 Ι IO II R9 IO Ι II RIO 5 IO Ι II L_{h} <u>/.</u> Ι ΙI RII 7 IO IO I ΙI RI2 O Ι

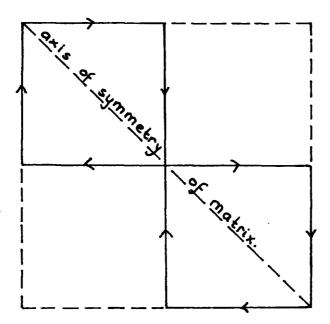
Matrix 4

C9 CIO CII CI2 CI C2 C3 C4 C5 С6 C7 C8 IO II Ι RI R2 6 . Ι IO II Ι IO **R3** Ι II Ι IO R4S IO R5 IO II Ι Ró II Ι IO II II I R7 IO 8π IO 9. II I I II R9 Ι II RIO 7 IO RII 5 ΙI IO ΙO ΙI RI2 0 I

The various sections are taken from the matrices in the following manner:-

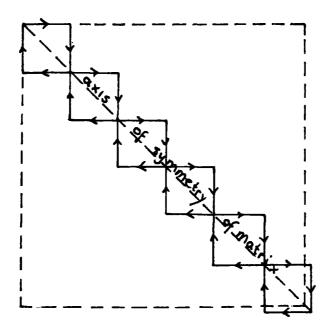
A. The clarinet melody, bars I-22, comes from matrix I, RI, first six notes, C6, first six notes, R7, last six notes, CI2, last six notes, RI2, last six notes in reverse order, C7, last six notes in reverse order, R6, first six notes in reverse order, CI, first six notes in reverse order.

Thus the following pattern is traced through the matrix:-



The octave positions of these notes form a wedge based on the wedge inherent in the row. So the line starts close around an E nucleus, and gradually higher and lower notes are added. The same octave positions are also observed in the accompanying chords.

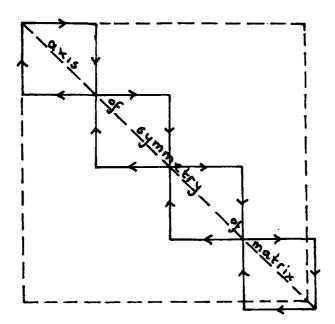
The three note accompanying chords are also taken from matrix I. This time by going along a row three notes, then using the last note as a pivot, going down the column three notes, then again pivoting, along three notes, etc. The following pattern is traced:-



In the clarinet melody, and most especially in the chords, it will be obvious that the note E, being the axis of symmetry, occurs very much more often than any other note.

- The viola traces the same melodic path as the clarinet's in A, only this time in matrix 2. Similarly the accompanying chords are taken from matrix 2, following the same pattern as that above. A wider octave placement is experienced in this section, however the central E remains in the same position. Also the chords start to appear out of rhythmic unison, so setting up the later dissolution into quasipolyphony.
- The first contrapuntal section is for clarinet and viola.

 The clarinet line is taken from matrix I; in a similar way to the chords in the opening sections, a path through the matrix is traced by travelling along a row four notes, pivoting, then dropping down a column four notes, etc.thus setting up the following pattern:-

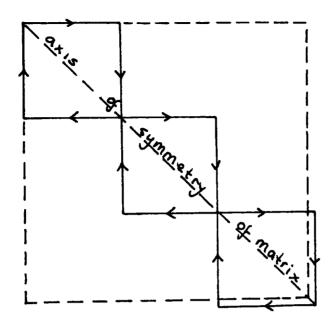


The viola line is arrived at in exactly the same way using matrix 2.

- D.A flute E heralds the beginning of section D, which is the third melodic section. The flute line is taken, as the clarinet's in A section and the viola's in B section, by a six along, pivot, six down motion through matrix 3.

 The accompanying chords come, as before, by a three along, pivot, and three down motion through matrix 3.
- E. The second contrapuntal section uses three instruments, flute, clarinet and viola. The flute line comes from matrix 3 by a four along, pivot, and four down method. The clarinet line comes from matrix I in a five along, pivot, and five down method. The viola line comes from matrix 2 in a five along, pivot, and five down method.

This patterning of fives gives the following path:-



- This is a solo 'cello line. It follows the ideas in sections A, B and D, but has no accompanying chords. This is so that the next section, which is the third contrapuntal section, also has the appearance of a melody with accompaniment section, this time with the chords so 'spread' as to become counterpoint.

 The 'cello line comes from taking a six along, pivot, and six down path through matrix 4, as the clarinet, viola and flute had done previously around matrices I, 2 and 3; however, its melody is interrupted by the clarinet at G and is not completed till just before H.
- G. The final contrapuntal section uses all four instruments. The patterns followed by these are given below:—

 Flute; through matrix 3, six down CI, six along R6, last six notes of C7, last six notes of R12, last six notes of C12 in reverse order, last six notes of R7 in reverse order, first six notes of C6 in reverse order, and first six notes of RI in reverse order. Infact, this is the same path as used by the flute in section D, but following it the opposite way round.

 Clarinet viola and icello: these follow similar paths in matrices

Clarinet, viola, and 'cello; these follow similar paths in matrices I, 2 and 4 respectively. The 'cello is left solo to finish the line and play the last E.

- III. The purpose of the coda is to eliminate the note E, which has played such an important role so far, by playing E^b and F^b together. The lines taken to do this are all from the original matrix I.

 The clarinet rises up CI in reverse order, stopping short of the final E; the 'cello does the same along RI.
 - However if the remaining two instruments followed similar lines along RI2 and CI2, they would contain almost the same notes as those instruments on CI and RI; infact they trace patterns of the note
 - I 3 5 7 9 II 2 4 6 8 IO, along RI2 for the viola line, and down CI2 for the 'cello line.

The final chord is then restated in its inversion.

Throughout the piece, the actual positioning of E is important. It starts by remaining in its central position, but starts to move outwards into octave, two octave and three octave simultanities later in the work, as the following chart shows:-

- In A , only central position used.
- In B, it is allowed to rise one octave in the flute part at bar 33.
- In [], the Es begin an octave apart; at bar 47 the lower E first appears, and at bar 52 the high E in the clarinet first appears; they resolve to the central position for the beginning of [].
- In D, only the central position is used, as in A, but it will be noticed that the accompanying chords in the second half of this section are so arranged as to have the 'cello constantly playing this E, to emphasise it.
- In E, the Es move outwards to a three octave span at bar 80, returning to the missing central E in unison at bar 81; they again move outwards to the same span at bar 90.
- In F, the 'cello uses two Es, central and octave lower.
- In G, the culmination of E's movement is reached. All instruments start on central E; at bar II3 a unison E is sounded an octave above central. From here on, the music 'fans' out to a four octave span at bar II8. This quickly closes in again to a unison central E at bars I22/3.

In H, the absence of E after the strong statement of it in G should be very apparent. The ending on $F^{\natural}/$ E^{\flat} has a marked contrast to the rest of the piece's insistence on E.

A Dialogue from Faustus.

Summer 1978.

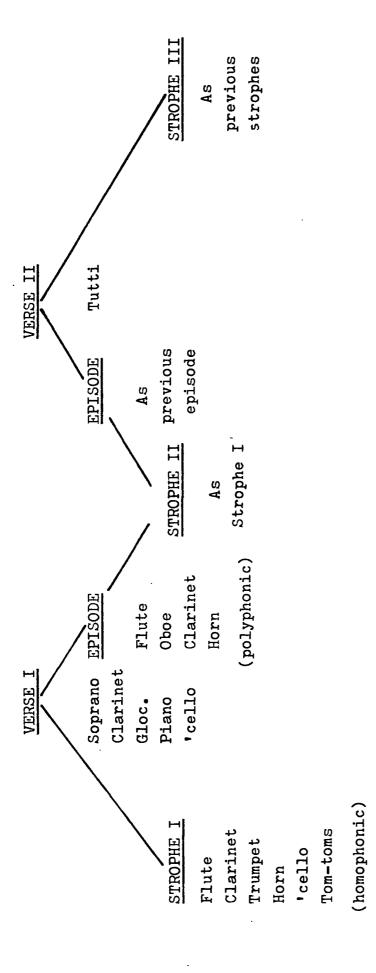
Flute, oboe, clarinet, bassoon, horn, trumpet, piano, percussion (glockenspiel, three tom-toms), 'cello and soprano.

Written for the Yorkshire Arts Young Composers' Competition.
Performed as part of the Huddersfield Festival of Contemporary Music, where it won first prize.

The idea of setting something from Goethe's Faustus had interested me for some time. I had re-read the work in the spring of 1978, and was much taken with the particular dialogue between Faust and his mistress, Margaret. The dialogue, as set out on the title page of the score, does not, at first reading, appear to be crucial to the main theme of the novel; however it is this very question of divine faith, both the lack of it in Faust and the pious possession of it in Margaret, which finally decides Faust's fate at the end of Part II of the book. Margaret's faith is therefore of great importance in bringing about the climax of the story and Faust's eventual redemption. The dialogue chosen best demonstrates Margaret's naive piety and Faust's intellectual cynicism. The whole is therefore treated musically with much dramatic gesture.

Musically I was still pre-occupied with the ideas formulated in 'Piece for a Week-end', concerning contrast between basically chordal, homophonic ideas, and contrapuntal, polyphonic ideas.

The dialogue is split into two, and appears as Verses I and II. These have contrasting movements of homophony and polyphony interspersed around them. The following chart shows the arrangement of these movements, the instrumentation involved, and whether the movements are homophonic or polyphonic.



Strophes (I, II and III)

These occur at A, F & N in the score. They act as an introduction or overture (to gain attention) and as an exodus at the work's end. In order to balance the piece, a further strophe (no. II) is put centrally. Generally the trophes are in rhythmic unison with much repeating of notes and dynamic percussion, after the manner of a fanfare.

It will be seen later, when discussing the harmonic aspects of the piece, that each strophe contains the same twelve chords in the same order. Octave placements are adhered to rigidly, but small scale rhythmic and dynamic structures are considerably altered. Strophe III, with which the work ends, is less powerful dynamically than the previous two, coming, as it does, after the climax of the whole work.

Episodes.

There are two short movements called episodes in the piece, and they occur either side of the central strophe at \mathbb{E} and \mathbb{G} in the score. They help to balance the whole work by accentuating its overall arch structuring. This structuring is further enhanced by the two episodes acting as mirror complementaries of each other (although not in a strict sense). For instance, the last bar of the first episode (bar I33) can be seen to be mirrored as the first bar of the second episode (bar I58/9).

The episodes are primarily contrapuntal in nature, and contain certain melodic ideas used elsewhere in the piece. For example, the flute and horn duet in the second episode, also occurs in Verse II; also the opening of the first episode uses the same theme as that which opens the whole work. This theme, infact, occurs throughout the work and reaches its climax on the trumpet during Verse II (bar 285)

Verses (I and II)

The two verses are both much longer than any of the other, shorter movements; and they contain the main musical developments of the work. Several motives, micro rhythmic structures and harmonies are collected from the rest of the piece, and expanded to fruition in these verses. Indeed, the climax of the whole work which occurs at the end of Verse II, is itself a mixture of the climaxes in Strophes I and II

and that of the second episode.

Verse I is on a smaller scale than Verse II.

In order to depict the idea of a dialogue in these verses, Faust's words are always set in the vocal range of middle C to the C above; and Margaret's words, in the octave above this. Further, the glockenspiel only occurs in the piece when Margaret is singing.

Matrix workings.

As with 'Piece for a Week-end', 'Faustus' is based on two interderived harmonic matrices for several of the movements; other movements, however, are treated more freely. The initial row and the derived matrices are given below.

Original row.



Matrix I.

This matrix is only used for Verse I.

	CI	C2	C3	C4	C5	c6	C7	с8	C9	CIO	CII	CI2
RI	II	0	5	2	4	3	7	8	I	IO	9	6
R2	IO	II	4	I	3	2	6	7	0	9	8	5
R3	5	6	II	8	IO	9	I	2	7	4	3	0
R4	8	9	2	II	I	0	4	5	IO	7	6	<u> </u>
R5	6	7	0	9	ΙΙ	IO	2	3	8	5	4	I
R6	7	8	I	IO	0	II	3	4	9	6	5	2
R7	3	4	9	6	8	7	II	0	5	2	I	IO
R8	2	3_	8	5	7	6	IO	II	4	I	0	9
R9	9	IO	3	0	2	I	5	6	II	8	7	4
RIO	0	I	6	3	5	4	8	9	2	II	IO	7
RII	I	2	7	4	6	5	9	IO	3	0	II	8
RI2	4	5	IO	7	9	8	0	I	6	3	2	II

Matrix 2.

	CI	C2	C3	C4	C5	c 6	C7	С8	C9	CIO	CII	CI2	
RI	5	0	II	2	4	9	I	8	7	IO	3	6	
R2	IO	5	4	7	9	, 2	6	I	0	3	8	II	
R3	, II	6	5	8	10	3	7	2	I	4	9	0	
R4	8	3	2	5	7	0	4	II	IO	I	6	9	
R5	6 -	I	0	3	5	IO	2	9	8	II	4	7	
R6	I	8	7	IO	0	5	9	4	3	, 6	II	2	
R7	9	4	3	6	8	I	5	0	II	2	7	IO	
R8	2	9	8	II	I	6	IO	5	4	7	0	3	
R9	3	IO	9	0	2	7	II	6	5	8	I	4	3
RIO	0	7	6	9	II	4	8	3	2	5	IO	I	0
RII	7	2	I	4	6	II	3	10	9	0	5	8	7
RI2	4	II	IO	I	3	8	0	7	6	9	2	5	4
									7	10	3	. 6	5

This matrix is formed by taking the original row, above, and multiplying the pitch class numbers by 7. The resulting row gives this matrix. It is used for the strophes.

Although a large amount of patterning or 'path-finding' is carried out within these matrices, often the various rows and columns are used simply as collections of notes or chords, and their particular ordering is not observed. This is reminiscent of Hauer's tropes rather than any serial procedures; however, there is a rigid system of pitch placements within octave spans, and also voice leading, especially in the longer sections.

Strophes.

As stated above, all three strophes contain the same twelve chords in the same order. Strophe III, infact, has a thirteenth chord (number nine in the sequence) which occurs after the usual progression. These five-note chords are derived from matrix 2 by going along row one five notes, then pivoting on the fifth note, going down column five five notes, and so on, until the bottom right hand corner of the matrix is reached; from these one returns on the other side of the diagonal (see diagram of matrix 2).

The instrumental allocation in these chords was chosen with a view to timbral diversity and individual tessitura within the chosen dynamic range; (so, for example, quiet chords would not have very high wood-wind etc.).

There is a general movement of pitch level, with the flute starting on high F, and moving to the F and the G above; also the bass line starts on a low B and gradually moves upwards to the B below middle C. Certain repeated note figures and held chords over a moving percussion part, are taken up and expanded in Verse II.

The conjunction of rhythmic unison chords and extremes of dynamic range with their accompanying envelopes, shows the influence of Varèse (and through him, of Birtwistle).

Episodes.

Basically, in these two movements, the twelve notes of the total chromatic are arranged into four chords, each having every note in a different octave from the others. A four-octave range was taken from low horn to high flute, and the chords arranged within this span. Two important points arise:- the note-leading and tessitura considerations and, as will be seen, the importance of notes which are shared between the various instruments.

Below, I have constructed the four chords used in each episode. From these chords each instrument was alloted four or five notes which to construct its line; inevitably certain notes are shared. The I did was to deliberately include one middle-range note in each chard which could be shared by all the instruments. So, as the counterpoint progresses (from a narrow to a wide range in Episode I, and vica-versa in Episode II) only four harmonies are heard, each having an instrumental unison note. Infact, it is possible to hear, quite easily, this progression of four notes: in the first episode they are :- C#, E, D, E, and in the second they are:- D, E, F, E,

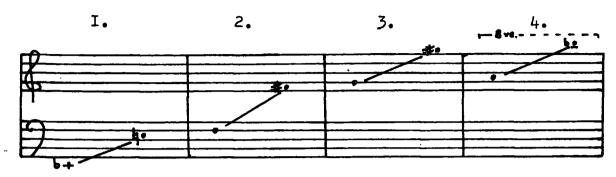
Two points of unity arise: - both episodes end accentuating E , and the one note missing from the last chord of the first episode, is the D on which the second commences.

The sets of chords are as follows:-



The notes ringed are those treated as unison between the four instruments.

In each episode, each note appears only once in each of the four octaves:-



The individual instrumental tessituras in each chord, are picked carefully Apart from a general voice leading effect, which can be easily seen in the chord charts above, certain instrumental lines are made to 'stand out' for example, the horn line towards the end of the first episode, and near the beginning of the second.

Small sections and ideas from these episodes are taken up in the verses; in particular, see the opening oboe line, bar IO5; the solo flute, bar I24; the repeated notes, bar I73; and the flute and horn duet in the second half of the second episode (this occurs at l = 72).

A reference to the tempo of the strophes occurs at bars 182-185, (d=84), otherwise the episodes are taken at d=90.

The Verses.

Verse I.

I envisaged, right from the first conception of this piece, that certain introductory lines in the text, should be spoken. The first, 'Promise me, Henry.' seemed most appropriate for this. This left nine lines of the text remaining in the first half, (Verse I), to set; so I derived a series of nine harmonies from the matrix (Matrix I), and used each of these, in turn, for the setting of each line and its instrumental accompaniment.

I did this by dividing the twelve x twelve matrix into nine small squares, each of four x four; each of the small squares contained sixteen notes. From these notes I eliminated any duplicates, which gave me a series of chords containing from eight to eleven notes each.

The next step was to arrange the notes in each of these chords into a stable set of pitch positions. As previously, various factors were important in this arranging, eg. voice leading, tessitura, motivic association, harmonic association, etc.

The nine chords finally arrived at, are given below:-

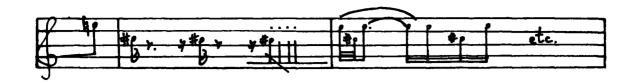


Bar nos. 22-27 | 28-37 | 38-42 | 42-53 | 54-64 | 65-72 | 73-82 | 84-95 | 96-104|

In working out the factors listed above, it became necessary to add certain notes to some of the chords. This altering of, or adding to pre-arranged musical material occurs in several of my works. I think that the pre-arranging is tremendously important in the initial stages of planning a work, and later in producing musical material (the concrete and bricks) to build the music from; however in working out the finer details there comes a point when intuition over-rides certain fixed clinical factors, and the composer is allowed to alter or add as he wishes. (Much has been written on this subject- see for example Charles Rosen's book 'Schoenberg'.)

Various observations may be made concerning the above series of chords. Firstly, notes often keep to a specific registration, note the low D and high E, also the low F^{\sharp} . This aids harmonic continuity and, in the case of pitch extremities, voice leading.

Secondly, the positioning of certain notes indicates the greater importance which is attached to them; for example, the low D can be considered as a bass note to the whole verse. The note B is the only note to maintain its position throughout; as with the E in 'Piece for a Week-end' the B is the axis of symmetry in the matrix and is used as a pivotal point; since it would normally only occur in chords I, 5 and 9, in the chart, it was necessary to add it to some of the other chords,(nos.3&4). Many motivic and rhythmic cells, peculiar to each instrumental (and the vocal) line recur throughout this, and the next, verse. Often, for example, if the vocal line contains two similar sounding words, the method of articulation will be similar.



See also the settings of 'tender', bar 63, and 'surrender', bar 72. Instrumentally, similarities may be found in the following devices:-

Arpeggiated chords on the piano,

A mobile with accented bass notes on the piano,

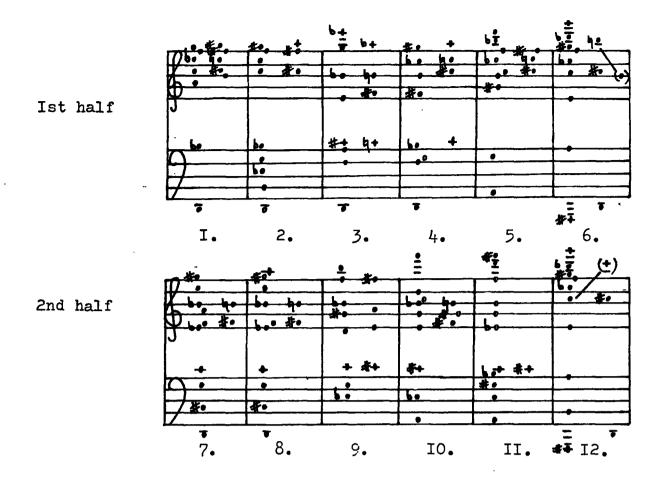
A 'mechanical' rhythm set up between the clarinet and the 'cello, Semi-tone glissandi on the clarinet,

Repeated-note accelerandi on the clarinet against fast piano arpeggios, etc.

Note also the opening motive of bar I occurring on the piano at bars 52-3. Verse II.

The second verse is much longer than the first, and incorporates the sub climax and ultimate climax of the whole work. Also, (unlike VerseI) it uses the full instrumental forces. Because of these and certain other reasons, it was necessary to divide Verse II into two halves. The first six lines, beginning 'would that I had some influence.', comprise the first half, and the remaining six, 'my darling' (spoken) onwards comprise the second half. The two halves are joined by a device I have used in other works written since this piece, whereby a whole harmonic area is pivoted about a particular note, (in this case B\(^1\)), to continue in its own inversion (see description later).

The harmonic structure of the second verse is based on a series of twelve-note chords. Melodic lines, and so on, are taken freely from within each chord, so no direct matrix manipulation is involved. As before various factors were important in deciding the pitch positions of the notes in each chord. The twelve chords, (six for Verse I and six for Verse II), are shown below.



As in the chords used in Verse I, there are immediate implications of traditional harmony in this series.

Low D is again used as a bass to much of the music, although at both climaxes it drops to low F^{\sharp} .

Top G is the highest note in both halves; in the second it is approached chromatically.

Certain notes are emphasised - (for example, B\$).

There is a great deal of reference to, and development of previous material in this verse. I have listed the more important of these below as they occur.

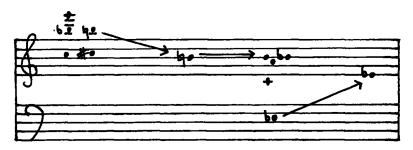
- Chord I. Bar 187-197. A similar solo glockenspiel opening to Verse I.

 Arpeggiated piano chords, also mobiles with accented bass notes.

 The oboe motive at bar 196 is the same as the flute line which opens the work.
- Chord 2. Bar 198-208. The 'mechanical' movement between the clarinet and 'cello. Powerful dynamic envelopes as in the strophes.
- Chord 3. Bar 209-215. The vocal line in bars 209-212 is the same as bars 24-27 in the first verse. The flute at bar 211 is taken from bar 124 in the episode. The wood-wind complex at bar 214 is similar to that at the end of the episode, bar 137.

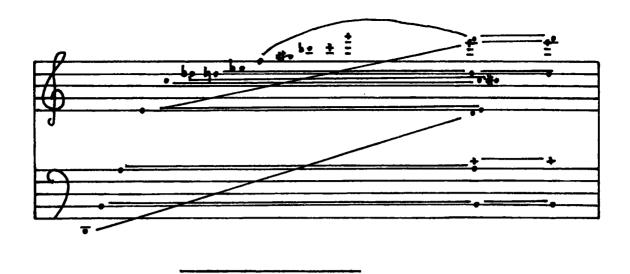
- Chord 4. Bar 216-224. 'Mechanical' clarinet and 'cello. Arpeggiated piano chords, mobile with accented bass in piano part imitated by the glockenspiel and clarinet.
- Chord 5. Bar 225-237. Word painting on the word 'mass'. There is a repeat of the familiar passage used before at bars 229-233. At bar 235 there is a repeat of the wood-wind complex as mentioned above.
- Chord 6. Bar 238-247. 'Mechanical' movement between the clarinet, piano and 'cello. At bars 24I-242 there is dynamic enveloping as in the strophes. The wood-wind at bars 243-244 comes from the second episode. At bars 234-235, the trumpet plays the work's opening motive.

Between bars 246-252 there is the inverting of the harmony mentioned earlier; it is brought about in the following manner:-



- Chord 7. Bar 253-26I. Reoccurrence of the horn and flute duet from the second episode. Piano arpeggiated chords. Wood-wind complex as in the episodes.
- Chord 8. Bar 262-266. Increasing number of dynamic envelopes.
- Chord 9. Bar 267-276. Previously heard piano chords. Increasingly complex rhythm building up.
- Chord IO. Bar 277-280.
- Chord II. Bar 281-285. The low F# heralds the next section.
- Chord I2. Bar 285-300. The final, and most developed statement of the work's opening motive, on the trumpet. At bar 287 there is an anticipation of the final strophe. There are instances of all elements of mechanical movement, dynamic enveloping and so on, right up to the climax; these derive initially from the episodes then from the strophes. The percussion at bar 297 is the work's loudest point.

At bar 299 there are, again, repeated chords, as though another climax were expected; however, at bar 30I the harmony turns itself 'inside-out', to become the first chord of Strophe III. This is achieved in the following way:-



In what is a fairly large structure, I have aimed at an organic continuity by the repetition and expansion of various motivic, rhythmic and harmonic cells in this piece. I was largely influenced, when writing, by Boulez's book 'On music today'. I was fascinated by his own cellular construction, and designed to create a work myself using similar principles, but of a more obviously audible nature. As a result, the piece bears no resemblance to Boulez's own music, but it does manage to create the idea of an organic whole. Germination and growth of ideas were more important to me than contrasts of sections, in this piece, even though my works in general were becoming multi-sectional.

Descent into the Maelstrom.

Christmas - Spring 1979.

Single wood-wind, four brass, timpani, percussion and twelve strings. The piece was written for and played by the New Music Ensemble of Durham in June 1980. In April 1981 a further performance was given at St. John's, Smith Square by Dominic Muldowney conducting the London Sinfonietta.

In 'Piece for a Week-end' and 'A Dialogue from Faustus', I had worked formally to create a whole by contrasting different types of music; then, by modulating those types, to arrive at an integrated end product. After 'Faustus' I thought for some time about other ways of achieving this organic whole. The harmonic system I had been using, that of matrix construction, had proved successful; but I was becoming less strict in using its ordering of notes, and more and more content with arranging them freely into series of harmonies. Formally, the juxtaposing and final integration of various types of material had also worked well, but I was beginning to search for new methods of formal design, still within a strict harmonic system. During this period I was reading the 'Tales of Mystery and Imagination' by Edgar Allen Poe, and was greatly impressed by the tale of 'The Descent into the Maelstrom'. This story tells of a fishing boat being sucked into a gigantic whirlpool, gradually sinking into it (whilst spinning round), and finally being saved at the last moment by the whirlpool subsiding into a calm sea. As with many of Poe's tales this was written in a stark, macabre vein; but it most impressed me in the vastness and terror of its imagery.

I had been wanting to write a large scale piece for small orchestra since finishing 'Faustus', and here seemed the perfect model.

As a stuctural design, I picked twenty-three key phrases from the text and divided these, in their order of events, into four sections. They divided very neatly, with the final section mirroring the events of the first, and the two central sections dealing with the more violent episodes. Further, the second and third sections, and the third and the fourth were separated in the story by 'magical' moments, and this immediately suggested the exact repetition of a passage of 'magical'

music in these places. (These places include the only use of the glockenspiel in the score).

As one reads down the list of key phrases (given below), obvious linkages between sections suggest themselves. My aim, as in previous works, was to link these sections motivically and rhythmically, but above all, harmonically. Before discussing the harmonic system used, I shall lay out the key phrases used, and show their application to the large scale structural design.

List, in order, of key phrases.

I. . . and beheld a vast expanse of ocean, 2. . . . gradual increasing sound, like the moaning of a vast herd of buffaloes, 3. '.. the whole horizon covered with a singular coppercoloured cloud, 4. . . and we were dead becalmed. 5. Such a hurricane as then blew..! 6. .. this current acquired a monstrous velocity. 7. .. burst suddenly into frenzied convulsions..! 8. . . . the seas, which at first had been kept down by the wind, . . now got up into absolute mountains. 2nd 9.'And then down we came with a sweep, a slide, and a plunge,' Movt. 10. The general surface grew somewhat more smooth, II.'..cessation of the wind,' 12.'..but nearly overhead there burst out, all at once, a circular rift of clear sky...and through it there blazed forth the full moon,' 13. '.. in a circle of more than half a mile in diameter.' I4. The boat...shot off in its new direction like a thunderbolt. 15.'..the roaring noise of the water was completely drowned in a kind of shrill shriek,' 3rd 16. . . . speeding dizzily round and round with a swaying and Movt. sweltering motion, and sending forth to the winds an appalling voice, half shriek, half roar,' I7.'As I felt the sickening sweep of the descent,' 18. The boat appeared to be hanging, as if by magic, midway down, I9.'..that whales came too near the stream,...impossible to describe their howlings and bellowings,

4th Movt.

- 20. .. but the yell that went up to the Heavens from out of that mist,
- 2I.'..and the bottom of the gulf seemed slowly to uprise.'
- 22. '.. the winds had gone down,'
- 23. .. when I found myself on the surface of the ocean,

Harmonic structure.

In the first place I decided that since the piece was concerned with the sea and storms, I should use actual quotations from well known sea-music; and from these, to derive a harmonic continuity for the whole work.

I finally chose eight extracts, five from Debussy's La Mer, and three from Britten's Sea Interludes, which seemed to sum up the feelings of certain key phrases. The quotations used can be seen in the score in the following places:-

Bar	4I - 48	BI
Bar	66-68	DI
Bar	127-128	D2
Bar	I35 - I40	B2
Bar	152 - 155	D3
Bar	185-187	D4
Bar	28 3- 287	D5
Bar	308 - 311	B 3

Having arrived at these quotations, I extracted from them their harmonically essential notes. In doing this I discarded any notes repeated, or doubled at the unison; and in cases of octave doublings occurring, I took that which suited my own harmonic scheme best. I then arranged these notes into chords, and expanded these chords into twelve-note harmonies by adding extra notes to make up the total chromatic, and pitching them in such a way that would enable me to make motivic and harmonic linkages between the various chords. As well as the eight chords derived in this manner, I constructed the inversions to each, inverting about a particular note chosen, once again, to facilitate motivic and harmonic continuity. These chords (shown below) were then allocated, one, two, or three at

These chords (shown below) were then allocated, one, two, or three at a time, to the various key phrases listed above.

Below is the chart of these harmonies followed by a list showing their use in the different key phrases.

In these charts, D and B refer to Debussy and Britten respectively; 'i'refers to inversion.

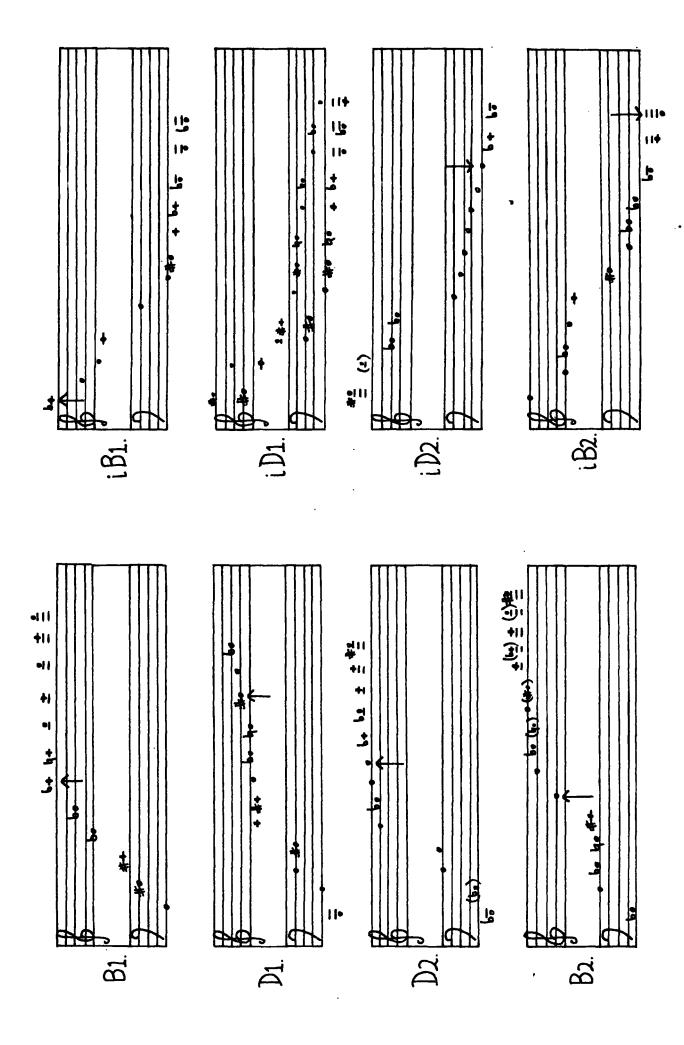
Many of the harmonies have one particular note occupying an important position; in the chart these are arrowed.

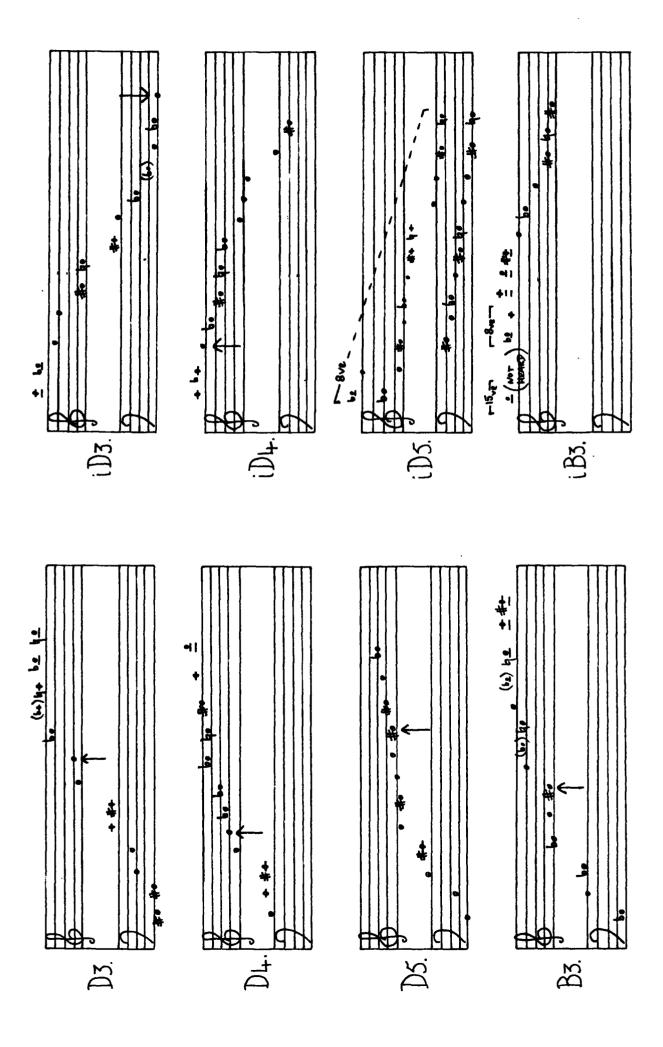
Occasionally octave positions of notes in the original quotations are altered in the harmony for passages using the particular chords; these

notes, in their original octave positions, are shown bracketed in the chart.

Generally there is a careful approach to and departure from quotations, in order to align the notes in their correct pitch positions so as to ensure good voice leading. Also, rhythmic configurations in the quotations are well prepared and departed from. I wanted the listener to be unaware of the transitions inbetween quotations; in this respect the work is an experiment in transposing and modulating known material to produce a new heterogeneous organic whole.

A particular influence on this idea is the piece 'Windows' by Jacob Druckman.





Harmonies used in the key phrases.

	I. 2. 3.	BI DI iDI BI	BI DI iBI	iDI	
ſ	5. 6. 7. 8.	BI	D2	→ <u>B2</u>	
Ì	6.	iD3			
l	7.	D3		D4	
I	8.	D4	iD4		
Į	9•	iD4			
	IO.	iD4	D4	iD3	
	II.	iD3			
	12.	iD5	(magica	1)	
_	_				
ſ	- 13.		D5	В3	
	14 .	B3		В3	
	I4. I5.	B3 D5		В3	
	I4.I5.I6.	B3 D5 iD4	iB3	В3	
	I4.I5.I6.	B3	iB3	В3	
	14. 15. 16.	B3 D5 iD4 iD4	iB3		
	14. 15. 16. 17. 18.	B3 D5 iD4 iD4 iD5	iB3 iD4		
	14. 15. 16. 17. 18.	B3 D5 iD4 iD4 iD5	iB3 iD4		iDI
	14. 15. 16. 17. 18.	B3 D5 iD4 iD4 iD5	iB3 iD4 (magica	1)	iDI
	14. 15. 16. 17. 18.	B3 D5 iD4 iD4 iD5	iB3 iD4 (magica	1)	iDI
	14. 15. 16. 17. 18. 19. 20.	B3 D5 iD4 iD4 iD5 DI DI	iB3 iD4 (magica iBI	1)	iDI

Those figures in boxes designate actual quotations.

Sectional analysis, (by way of key phrases).

- I.

 The work begins with very quiet rolls on the timpani, undulating in slow glissandi, and on the gong. This creates a slow moving atmospheric background. The most important note in this section is A^b, and it soon appears on the wood-wind. High E and F occur on the strings and anticipate the first Britten quotation; this is further stressed in the chord G^{*} A E and F, which follows. At bar 34, the first twelve note chord dynamic envelope occurs. There is a quotation, EI, at bar 4I. Throughout this section, the wavering horn notes (played on natural harmonics), and later occurring in the clarinet, are imitative of whale-song; they are indicative of a calm sea.
- A harsh dynamic envelope occurs at bar 57. Soon a high B is set up for the ensuing Debussy quotation, DI at bar 66.

 There are various dynamic envelopes and thematic fragments after this.
- From bar 83 onwards there is a representation of a moving cloud. At bar 92 there is a violent outburst using the previously heard dynamic envelopes, and a brass complex which returns later. Gradually the music becomes more calm and changes to the BI harmony.
- 4.
 From bar IIO to the end of the movement, the feeling is of being 'becalmed'. Ideas from the works opening reappear.

An accelerating movement prepares the way for the next quotation. The harmony changes from that of the first movement to D2 at bar I29. The Debussy quotation, D2, follows this. In turn, this harmony changes in a violent disintegration of the Debussy to that of the next quotation, Britten's B2, at bar I35.

- 6. The Britten leads into a string mobile complex on iD3 with answering brass and percussion outbursts. The harmony gradually changes to D3 for the next Debussy quotation at bar I52, D3.
- A motion of 'frenzied convulsions' is set up from bar I56 onwards between the strings and the wood-wind, using the harmonies D3, iD4, and finally D4. String figurations gradually settle into the Debussy arpeggios of the next quotation. The note G is made much of in this section; also there is some hinting of the Debussy in the brass.
- 8.

 By bar 185, the 'mountainous seas' of the Debussy quotation, D4, have been reached. This, however, is immediately terminated by the note G. The percussion and brass build up the excitement along with ever-rising wood-wind and strings until a top G is reached, (with a harmony of iD4). There is a 'tottering on the brink' at bar 200 before the next section. This build up is achieved harmonically by expanding the chord of iD4, one note at a time in outward octave movements.
- 9. 'Down we came'. This uses the opposite effect to the build up; that is the expanded iD4 is contracted to its original shape. The music gradually becomes calmer.
- IO.

 From bar 2IO onwards the foregoing violence takes some time to abate, and the brass outbursts go through the harmonies iD4, D4 and iD3 before complete calm is reached.
- II.
 From bar 235 to 243 we have the 'cessation of the wind'.
- I2.
 This is the first 'magical' section. The harmony iD5 is played by strings on high harmonics with a melodic line on the glockenspiel.

13.

The scoring of this section, providing the seating plan is adhered to, should produce a circling effect which imitates the circling in the story at this point. The harmony begins on D5 in preparation for the final Debussy quotation. By shortening each player's phrases, I hoped to produce the effect of the circling becoming faster. The quotation, occurs at bars 282 to 285. A complex brass outburst, reminiscent of earlier passages, leads into a string section where the harmony B3 takes over, together with the fast quaver movement in unison.

I4.

Bar 308 is the final Britten quotation, B3. At bar 315 the high notes of iB3 simulate shricking.

15.

The circling motion continues at bar 324, with successions of shrieks and roars from the wood-wind and brass. The strings move in the harmony of D5 while the high wood-wind remain in iB3.

Finally the chord of iD4 is expanded as was done previously.

I6.

The iD4 harmony spins around before pausing 'on the brink' at bars 348 and 349.

I7.

As previously in bars 200 to 209, there is a 'sickening descent'. This time, though, the 'magic' string chord of iD5 gradually emerges to accompany the previously heard glockenspiel line.

18.

Second 'magical' section.

19.

The last movement returns to the harmonies of the first movement- DI, iBI, BI and iDI. Although this section begins quite violently with whales bellowing on the brass and dynamic envelopes occurring in the

strings, there is a feeling of gradual returning to first movement ideas.

20 and 2I.

A final yell from the brass and percussion occurs followed by a string glissando which signifies the 'bottom arising'.

22 and 23.

By bar 293 we have reached the calm seas and no wind of the first movement. Basking whales once more sound on the horns and a passing reference to the first Debussy quotation is heard at bars 408 to 4II. As the music approaches its quiet conclusion, there is a half-speed version of the previous brass complex (bars 4I7-420).

A melody arises on the first violin and flute which is based on the harmony of the first Britten quotation. This melody ends with the actual ending of the Britten melody held over from the first movement, where it was not heard. Thus the whole work has come full circle. It finishes with a fleeting reference to the first Debussy quotation.

This work appears to be at the same time simpler than previous works, in its motivic and rhythmic configurations, whilst at the same time creating a feeling of grandeur and vastness. I hoped, in this, to capture the ideas, apparent in Poe's tale, of huge expanses of ocean and the gigantic forces of nature. It was generally agreed, after the first performance, that a great deal of tension was built up in the first movement, and that this was released very satisfactorily at the beginning of the second movement.

The harmonic system used throughout is treated more freely than I had previously done; and I believe this 'openess' helped to create the open feeling of the music.

The overt influences on my earlier pieces, namely David Lumsdaine and Harrison Birtwistle, had become less obvious aurally. The idea of creating passages of music from one twelve note chord may have been suggested by the first movement of Berio's Sinfonia.

In the Presence of the Goat.

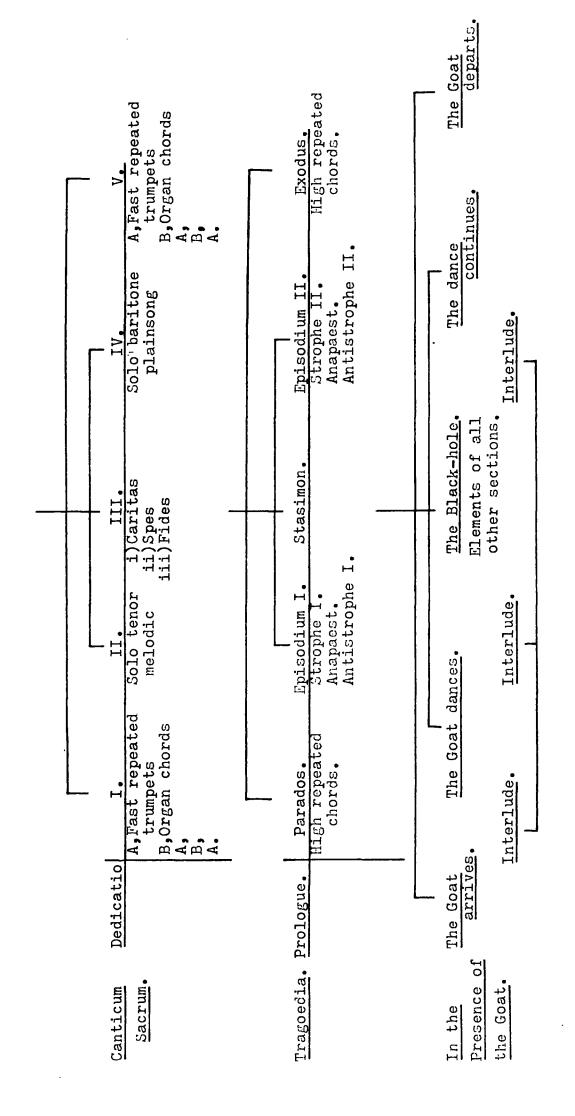
Spring 1979.
Wind quintet, string quartet and harp.
Written for an S.P.N.M. week-end in York.
Performed there and later in a Purcell Room's concert.

For the S.P.N.M. week-end in York in 1979, composers were invited to write pieces for the same ensemble as that used by Birtwistle in his Tragoedia. The entries chosen were to be played in a concert including the Birtwistle work.

Since I knew this piece quite well, and had talked to Birtwistle on a few occasions, I decided to write a piece using one or two aural ideas from his work. This is not to say that I used actual quotations, as I had in'Maelstrom', but that certain harmonic ideas and rhythmic patterns were used in my piece which reminded the listener of Tragoedia. The title of my piece actually comes from Birtwistle's; Tragoedia literally means 'goat-dance'. This idea gave me various textures or colours to use in my work, however it in no way shaped the piece, which, at this stage, could have taken any form.

To arrive at a structural design, I worked on the problem of making an analogy between the astronomic phenomenon of 'black-holes' and musical shape. The analogy was not, in any way 'real'; that is to say,I did not try to depict a black-hole illustratively in music, but rather I took the effect (or at least what is known about it) of a black-hole, and invented a musical shape which did similar things.

The work, as Faustus had been, was multi-sectional, with the Black-hole section coming centrally, and being larger and more important than the others. Various elements from these other sections are drawn together and gradually made to accelerate towards a 'hole', (infact the note E). When, finally, the music reaches this hole, and goes through it, it emerges at the other side, in a disintegrated manner. The symmetrical structural shaping of my piece was influenced by Tragoedia, which in turn showed the influence of Stavinsky's Canticum Sacrum. Below I have set out the various sections of these three works to demonstrate the similarities.



I. The Goat arrives. (introduction)

For strings and harp, this section has slow moving harmonies. Certain motivic and rhythmic cells have their first appearances here, before being taken up and used in the Black-hole and the last section.

2. Interlude.

This is a short, mainly contrapuntal section, where elements of a rhythmic unison dance are first heard.

3. The Goat dances.

Here we have a jolly dance in rhythmic unison. The parody of Birtwistle is most obvious here. It includes the first of the 'harmonic disintegration' sections.

4. Interlude.

As 2 above.

5. The Black-hole.

From the start, a central E is emphasised as the forthcoming hole. Dance elements appear slowly and quietly as a chorale. Small units from the Interludes appear and are juxtaposed with the above chorale. A menacing E is ever present. The music gradually accelerates and incorporates three mixed arpeggio figures, each a little more excited than the previous, and each ending on E. The hole itself occurs as unison Es, and is followed by the ensuing disintegration.

6. Interlude.

As 2 and 4 above.

7. The dance continues.

This is similar to the third section, and includes the last of the disintegration passages.

8. The Goat departs.

Similar to the first section.

After the relative harmonic freedom of Faustus, and then Maelstrom, I decided in this piece, to follow just one harmonic matrix very strictly. Every motivic line and harmony in the piece is taken from this matrix, and together with a tight system of octave positioning of pitches and voice leading, this ensured a definite harmonic continuity. The initial row and its matrix are given below, followed by a sectional analysis of how the matrix is used in each section.

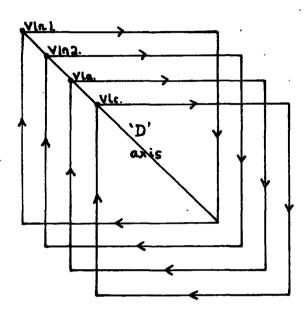


CI	C2	C3	C4	C5	C6	СĄ	CS	C9	CIO	CII	C12			
2	8	I	II	7	3	4	IO	5	9	6	0			
8	2	7	5	I	9	IO	4	II	3	0	6	0		
3	9	2	0	8	4	5	II	6	IO	7	I	3	9	
5	II	4	2	IO	6	7	I	8	0	9	3	5	II	4
9	3	8	6	2	IO	II	5	0	4	I	7	9	3	8."
I	7	0	IO	6	2	3	9	4	8	5	II	I	7	0
0	6	II	9	5	I	2	8	3	7	4	IO	0	6	II
6	0	5	3	II	7	8	2	9	I	IO	L _†	6	0	5
II	5	IO	8	4	0	I	7	2	6	3	9	II	5	IO
7	I	6	4	0	8	3	9	IO	2	II	5	7	I	6
IO	4	9	7	3	II	0	6	I	5	2	8	IO	4	9
4	IO	3	I	9	5	6	0	7	II	8	2	4	IO	3
	8	I	II	7	3	4	IO	5	9	6	0	2	8	I
		7	5	I	9	IO	4	II	3	0	6	8	2	7
			0	8	4	5	II	6	IO	7	I	3	9	2
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2 6 7 I 6 4 0 8 3 9 IO 2 10 4 9 7 3 II 0</td></td></td<> <td>2 8 I II 7 3 4 IO 5 9 6 8 2 7 5 I 9 IO 4 II 3 0 3 9 2 0 8 4 5 II 6 IO 7 5 II 4 2 IO 6 7 I 8 0 9 9 3 8 6 2 IO II 5 O 4 I I 7 0 IO 6 2 3 9 4 8 5 O 6 II 9 5 I 2 8 3 7 4 6 0 5 3 II 7 8 2 9 I IO II 5 10 8 3 9 IO 2 II II 6 4 0 8 3 9 IO 2 II</td> <td>2 8 I II 7 3 4 IO 5 9 6 0 8 2 7 5 I 9 IO 4 II 3 0 6 3 9 2 0 8 4 5 II 6 IO 7 I 5 II 4 2 IO 6 7 I 8 0 9 3 9 3 8 6 2 IO II 5 0 4 I 7 I 7 0 IO 6 2 3 9 4 8 5 II 0 6 II 9 5 I 2 8 3 7 4 IO 6 0 5 3 II 7 8 2 9 I 10 4 II 5 10 8 4 0 1 7 2 6 3 9</td> <td>2 8 I II 7 3 4 IO 5 9 6 0 8 2 7 5 I 9 IO 4 II 3 0 6 0 3 9 2 0 8 4 5 II 6 10 7 I 3 5 II 4 2 10 6 7 I 8 0 9 3 5 9 3 8 6 2 10 II 5 0 4 I 7 9 I 7 0 10 6 2 3 9 4 8 5 II 1 1 0 6 II 9 5 I 2 8 3 7 4 10 0 1 5 10 8 3 9 IO 2 II 5 7 1 6 4 0 8 3 9</td> <td>2 8 I II 7 3 4 IO 5 9 6 0 </td>	2 8 I II 7 3 4 IO 5 8 2 7 5 I 9 IO 4 II 3 9 2 0 8 4 5 II 6 5 II 4 2 IO 6 7 I 8 9 3 8 6 2 IO II 5 O I 7 0 IO 6 2 3 9 4 0 6 II 9 5 I 2 8 3 6 0 5 3 II 7 8 2 9 II 5 IO 8 4 O I 7 2 7 I 6 4 O 8 3 9 IO II 9 7 3 II 0 6 I 4 IO 3 1 9 5 6 O </td <td>2 8 I II 7 3 4 IO 5 9 8 2 7 5 I 9 IO 4 II 3 3 9 2 0 8 4 5 II 6 IO 5 II 4 2 IO 6 7 I 8 O 9 3 8 6 2 IO II 5 O 4 I 7 0 IO 6 2 3 9 4 8 O 6 II 9 5 I 2 8 3 7 6 0 5 3 II 7 8 2 9 I II 5 10 8 4 0 1 7 2 6 7 I 6 4 0 8 3 9 IO 2 10 4 9 7 3 II 0</td>	2 8 I II 7 3 4 IO 5 9 8 2 7 5 I 9 IO 4 II 3 3 9 2 0 8 4 5 II 6 IO 5 II 4 2 IO 6 7 I 8 O 9 3 8 6 2 IO II 5 O 4 I 7 0 IO 6 2 3 9 4 8 O 6 II 9 5 I 2 8 3 7 6 0 5 3 II 7 8 2 9 I II 5 10 8 4 0 1 7 2 6 7 I 6 4 0 8 3 9 IO 2 10 4 9 7 3 II 0	2 8 I II 7 3 4 IO 5 9 6 8 2 7 5 I 9 IO 4 II 3 0 3 9 2 0 8 4 5 II 6 IO 7 5 II 4 2 IO 6 7 I 8 0 9 9 3 8 6 2 IO II 5 O 4 I I 7 0 IO 6 2 3 9 4 8 5 O 6 II 9 5 I 2 8 3 7 4 6 0 5 3 II 7 8 2 9 I IO II 5 10 8 3 9 IO 2 II II 6 4 0 8 3 9 IO 2 II	2 8 I II 7 3 4 IO 5 9 6 0 8 2 7 5 I 9 IO 4 II 3 0 6 3 9 2 0 8 4 5 II 6 IO 7 I 5 II 4 2 IO 6 7 I 8 0 9 3 9 3 8 6 2 IO II 5 0 4 I 7 I 7 0 IO 6 2 3 9 4 8 5 II 0 6 II 9 5 I 2 8 3 7 4 IO 6 0 5 3 II 7 8 2 9 I 10 4 II 5 10 8 4 0 1 7 2 6 3 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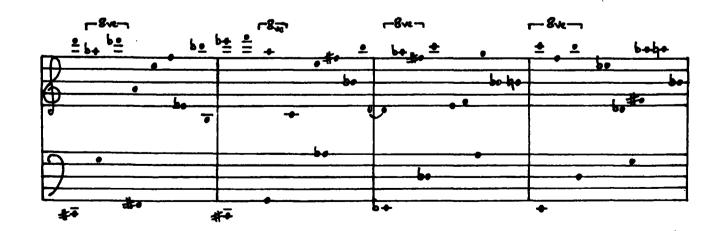
Sectional analysis.

I. The Goat arrives.

In this introductory section, each string instrument traces a complete square around the matrix, each starting successively on a D on the axis of symmetry, (see below).



Thus each string instrument has 44 notes to play; (since each line shares a corner note). I divided these notes into four groups in which each note was set at a particular octave position. Each instrument plays its own line adhering strictly to these positions; if a particular note is too high or too low for a specific instrument, it is left out; (eg. the bottom C for violins). Below is a chart of these octave positions.



There is a gradual tendency towards a rising bass line; the highest note appears in the first group. Although the strings follow their alloted lines strictly, the harp accompanies them with a freely chosen order of notes taken from within each of the groups above. The harp begins with E^b and F^b , which anticipates the E of the Black-hole later; (the harp, incidently, finishes the whole work on E^b and F^b , which, as in 'Piece for a Week-end', draws attention to the middle note E^b). Several small elements in this section are repeated later in the last section.

2. Interlude.

The three sections called Interludes in this piece consist of three solo instruments. In the first of these, the flute, clarinet and violin I take the solo roles, and cello, horn and bassoon play the accompaniment. The order of the notes in the solo lines are derived as follows:-

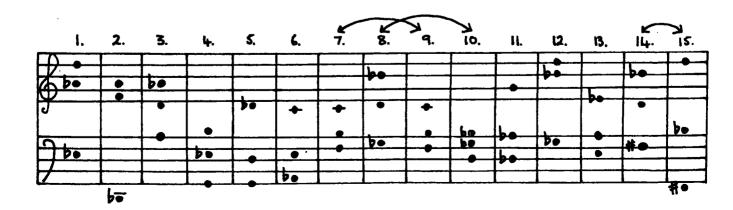
Flute, three along, three down etc. to bottom right hand corner.

Clarinet, four along, four down etc. "

Violin, five along, five down etc. ""

For diagrammatic representations of these, see commentary to 'Piece for a Week-end'.

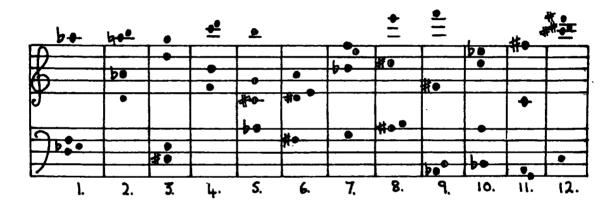
Because of the simultaneous working out of these lines by the three instruments, many notes are doubled, forming what sounds like a quasi-canonic movement. Pitch positionings are picked with regard to individual tessitura, instrumental doublings and voice leading. The accompanying chords in this Interlude are taken from the matrix as follows:— first three notes of CI, next three of CI, first three notes of C2, next three notes of C2 etc. up to notes 4,5 and 6 of C6; thus the top left hand corner hexachord block has been stated completely. The pitches of the notes in these chords are given below. The small rhythmic units used anticipate the following Goat dance.



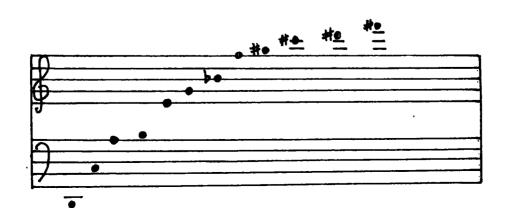
Chord 7 is repeated as chord 9; chord 8 as chord IO, and chord I4 as I5, the last two with octave displacements.

3. The Goat dances.

This section contains a rhythmic unison dance played, in four note chords, by different selections of instruments from those available. There are twelve chords used and these are played and repeated in a free manner. The chords are taken as a series of the first four notes of CI, then C2, etc. to CI2. The pitch positioning of notes is worked out, so that each note appears only once in each octave of a four octave range. In this way one particular interval group is used, being systematically transposed, then further modified by re-registration. The chords are given below.



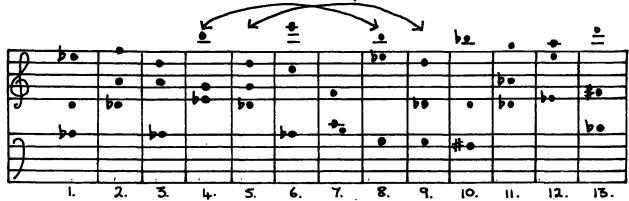
The positions were picked for voice leading purposes and the combination of timbres resulting from combining the different instrumental tessituras; here, dynamics played a key part. This section also includes an anticipation of the disintegration coming later in the Black-hole. Section E shows this twelve note harmony in free metre, where individual strands stand out and are characterised dynamically to create a complex. The chord used for this section, given below, reappears in the Black-hole as the arpeggiated figures leading up to the hole.



4. Interlude.

This follows the same idea as 2 above. This time the solo instruments are the cor anglais, violin I and viola, with flute, clarinet and violin II supplying the accompaniment. The solo instruments take the same notes for their separate lines as the flute, clarinet and violin in 2: the accompanying chords are also the same. However the pitch positions have been altered so as to produce a less bottom heavy harmony.

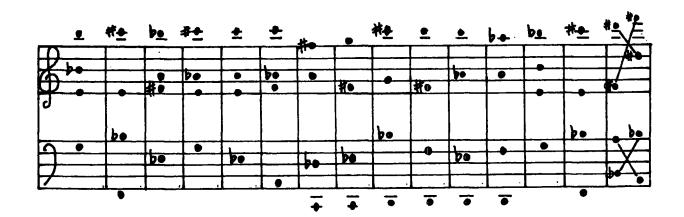
The pitches of the notes in the accompanying chords are given below.



Chords 4 and 5 are rearranged as 8 and 9.

5. The Black-hole.

This starts with a central E being played by all the instruments, this being a foretaste of the hole itself. A chorale starts as a slow imitation of the previous dance section with strings and wind playing in unison. The chords used in this chorale are obtained from the matrix by taking the last four notes of each column. It will be remembered that the chords for the Goat dance used the first four notes of these columns, the second dance (yet to come) uses the second four notes, and so this chorale completes the vertical usage. The pitch range of these chords is wide, covering the area from low cello and bassoon to high violin and flute. They are given below.

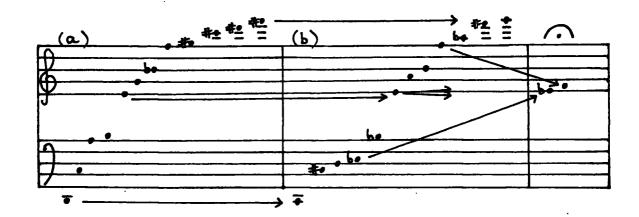


The ordering of these chords was done freely, with regard to the top melodic line, and voice leading. Certain pitches are more conspicuous, than others- eg. top $C^{\#}$, B and B, and low C, and D, also the central E.

Interspersed within this chorale are small sections taken from the Interludes; a harp part is freely added, using the harmonies of the sections used. The note E is important in these, and is often articulated to stand out. There is a recurrence of the opening central E section, showing the ever-presence of the hole; then the music becomes faster (= 90 at bar 163). At bar 166 the first descending arpeggio figure occurs, based on the harmony shown above at the end of section 3. The second arpeggio figure occurs at bar 174, this time sounding a tone higher.

At bar I83, the music increases in tempo to d = 108, — the tempo of the dance sections. The final arpeggio figure starts at its highest point, F^{*} , and leads down to the hole itself.

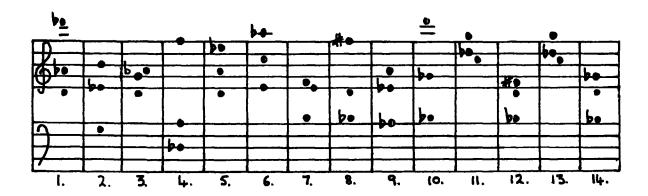
After a series of dynamic envelopes, on all instruments, the music traces out the arpeggiated chord to its extremes, then disperses in a free metred complex, to finally end on E^b and F thus eliminating the central E. The original arpeggiated chord is expanded as follows:-



6. Interlude.

This is similar to the two previous Interludes, with horn bassoon and 'cello taking the solo lines and cor anglais, violin II and viola taking the accompanying chords. This time, however, the melodic lines are taken from notes obtained from the matrix by proceeding down three and along three (to bottom right hand corner), (horn), down four and along four (bassoon) and down five and along five ('cello). These paths are the inversions to those chosen in the other Interludes and make up one facet of having travelled through a black-

hole. The accompanying chords are also derived in an inverted fashion; this time by taking the first three notes of RI, then the second three notes, then the first three of R2, etc. until the second three of R6 is reached. Because of the tessitura of the three solo instruments (ie. predominantly low in pitch) care had to be taken in arranging the octave positions of notes within the accompaniment. Below is a chart showing these.



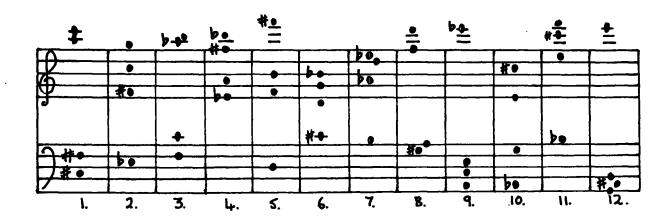
Chords II and I2 are repeated as I3 and I4.

7. The dance continues.

Similar to section 3. The series of four note chords, played in rhythmic unison are derived from the matrix by taking successively the four middle notes of CI, C2, etc. to CI2 (see 'The Goat dances').

The disintegration in this section takes its harmony from that in the Black-hole section after the music had passed through the hole, ie. chord (b) in section 5 above.

As before the chords in this dance use notes in each of the octave positions only once; the series moves in roughly an opposite or mirror direction to the one in section 3. They are shown below:-



Timbral effects are important in this section, the combinations of various instrumental tessitura produce interesting sounds like no.12 above (see bar 249).

8. The Goat departs.

This is complementary to the first section. It provides a quasi-mirror to that section, and completes the arch structure of the whole. The paths traced through the matrix by the individual instruments within the section are the large squares shown under section I, except that the two violins start one note on from their diagonal starting position; that is, violin I starts on the note Ab instead of D, and violin II on G, not D. These Ds are supplied lower down by the viola and cello.

The harp, once more, plays freely within the harmonies set up by the other instruments.

The section ends with the Eb and F that the Black-hole section ended on.

'In the presence of the Goat' marked a return to multi-sectional pieces worked out in a strict matrix order. Certainly the work exhibits close harmonic integration and by the careful use of motivic and chordal elements, a fairly close rhythmic unity is established, the whole fitting into an arch shaped Structure.

Reed Music. (I).

Summer - Autumn, 1979.

For eight double-reeds; five oboes, cor anglais and two bassoons (2nd doubling contra).

Written for the Britten-Pears School of Advanced Musical Studies, and performed there at a week-end seminar in October 1979.

The instrumentation for this piece was suggested by Harrison Birtwistle, who was senior tutor at the seminar. It follows the instumentation of Dominic Muldowney's group who play at the National Theatre. One of the major problems in writing a piece for this ensemble was the question of timbre. Certain musical styles which might sound acceptable played by more conventional ensembles, stand a chance of seeming muddy (and even ugly) with this combination.

The first compositional ideas which occurred to me were concerned with relating multi-phonic chords played on single instruments with ordinary chords played on a number of instruments.

In the same way that I had derived several related harmonies in my 'Descent into the Maelstrom', each being based on a 'tonal' quotation, so in this work I constructed several inter-connected harmonies, each having triadic connotations.

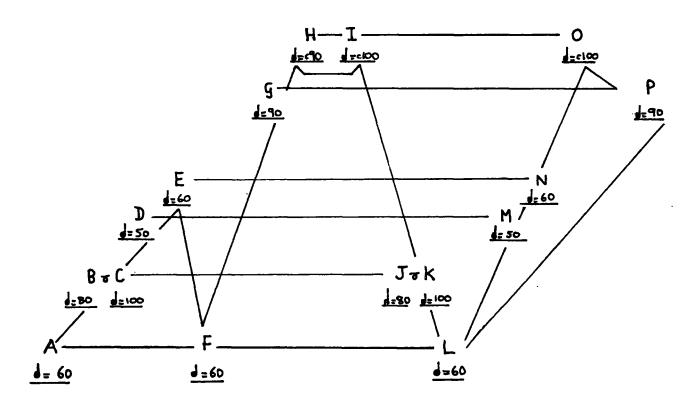
The work was to be in one movement divided into several sections. These sections were contrasted by different ideas of motivic construction, counterpoint, tempo, and harmonic movement. A further point of construction which I used here for the first time was the actual repetition of certain sections later in the work. I wanted to create a unified mosaic.

Below I have described the rough characteristics of each section, then drawn a chart showing how they inter-connect. After this I have set out a more thorough description of each section, and shown its relevant harmony, so that the harmonic whole might be better understood.

- A. = 60. Solo melody on the cor anglais. Accompaniment, often in rhythmic unison, on four other insruments. The note E is central.
- \blacksquare . \blacksquare = 80. Short rhythmic dance in block chords.
- \square . d = 50. Slow moving chordal metamorphosis (see harmony later).

- \blacksquare = 60. Gradual dissipation of harmony to leave original chord.
- F. l = 60. Similar to A but with five accompanying instruments.
- H. = c90. Harmonic mobile between six instruments.
- J. J = 80. Direct repetition of B.
- K_{\bullet} . d = 100. Direct repetition of C_{\bullet} .
- \blacksquare . $\bullet = 60$. Similar to \blacksquare and \blacksquare but with six accompanying instruments.
- M. d = 50. Similar to D but using a different harmony.
- \mathbb{N} . $\mathbf{l} = 60$. Direct repetition of \mathbb{E} .
- O. d =cIOO. Harmonic mobile between eight instruments.
- P. d = 90. Direct repetition of G ending on a short extract from A.

The inter-connections and repetitions in the various sections can easily be seen on the following diagram.



Sequence of, and relationships between, sections.

Sectional analysis.

A. The sections A, F and L were the first to be composed. They are larger and of more importance than the other sections; also they are all self-contained harmonically, since the harmony used in them is not used elsewhere in the work.

The idea of a solo instrument with accompaniment is reminiscent of the beginning idea in 'Piece for a Week-end'. The first section of this work and a large part of the earlier piece are related in other ways also. The central note, E, is common to both, so, too, is the wedge shape of the row used, in both cases allowing a melodic line to grow from that central E.

Below is the row used in these three sections, and the resulting matrix derived from it, (named HI.)

The matrix HI.

	CI.	C2.	c3.	C4.	C5.	c6.	C7.	c8.	. C9.	CIO.	CII.	CI2	•
RI.	4	5	3	2	6	7	I	0	8.	IO	9	II	
R2.	3	4	2	I	5	·6	0	II	7	9	8	IO	
R3.	5	6	4	3	7	8	2	I	9	II	IO .	0	
R4•	6	7	5	4	8	9	3	2	IO	0	II	I	
R5.	2	3	I	0	4	5	II	IO	6	8	7	9	
R6.	I	2	0	II	3	4	IO	9	5	7	6	8	
R7.	7	8	6	5	9	IO	4	3	II	I	0	2	
R8.	8	9	7	6	IO	II	5	4	0	2	I	3	
R9.	0	I	II	IO	2	3	9	8	4	6	5	7	0
RIO.	IO	II	9	8	0	I	7	6	2	4	3	5	IO
RII.	II	0	IO	9	I	2	8	7	3	5	4	6	II
RI2.	9	IO	8	7	II	0	6	5	I	3	2	4	9
	_										9	II	4

The melodic lines in these sections, always on the cor anglais, come from tracing a pattern through the matrix three along, then three down etc., until the bottom right hand corner is reached for the first section, A; four along and four down for F, and five along and five down for L. (For diagrammatic representations of these,

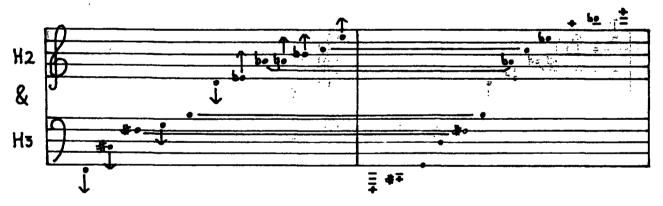
see the commentary to 'Piece for a Week-end'.). The melodic line gradually becomes wider in its span, encompassing in this section low A and upper F^{\sharp} (that is an octave plus a major sixth). This span increases in the other two similar sections.

The accompanying chords are made up from successive four note groups taken from a path circumscribing the matrix; that is, the first four notes of RI, then the second four, then the third four, followed by the first four of CI2 etc. These notes are all pitched within the octave having middle E as its centre. This remains the case, (except for very brief moments of imitation), in the other sections of this type. There are several multi-phonics in these sections which anticipate and echo actual chords played in other sections.

Because of the wedge shaped nature of the row, and its deliberate centering on E, these sections contain many cluster-type chords.

BC These sections are linked together in their complementary rhythmic associations, (one being in rhythmic unison, the other contrapuntal); also in the inter-derivation of their harmonies.

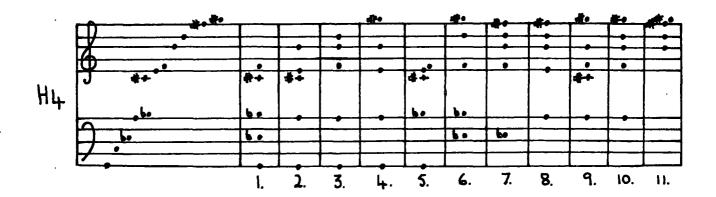
The chords producing these harmonies are given below:-



The cross-over point between the two sections comes at bar 4I, where section [C] starts with extremes of register between high oboe and low contra-bassoon.

D. Very simply, this section is a succession of triadically-based chords taken from one twelve note harmony. The instrumental combinations are important in their very slight timbral differences, ie. even the difference between, for example, oboe I and oboe II is noticeable. The chords are made to overlap in a similar fashion to 'Farben', the third of Schoenberg's 'Five orchestral pieces'.

Below is the twelve note harmony, and the chords derived from it.



The harmony in this section, H4, is closely related to the harmony in the next section of the same type, M. Both are followed by exactly the same section, (since section E is the same as section M). The basic harmony for this section is a hexachord taken from the middle of the chord on which section M is based (see later note). At the beginning this hexachord is combined with its own inversion transposed so that the outer notes are the same in each chord: this provides material for the general polyphony. Gradually there is a filtering out of the notes in the inversion chord together with a rhythmic repetition of notes from the basic hexachord; thus this original harmony is allowed to remain intact at the section's end. The hexachord with its inversion is given below:-

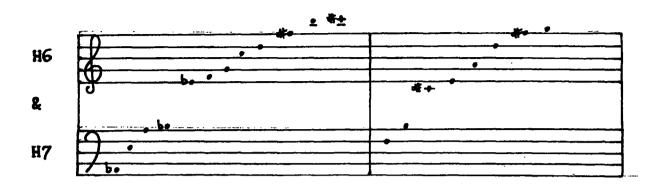


always appear together as a pair.

ments around the cor anglais melody, instead of four. The notes of the melody come from tracing a path through the matrix, HI, four along and four down. The chords come from a similar idea to that used in A, only proceeding in five note groups not four. Certain rhythmic and motivic ideas used here can be seen to have their origins in A. Again, multi-phonics echo chords used elsewhere.

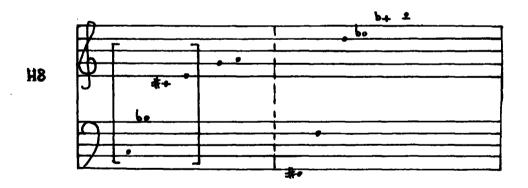
G. There is a juxtaposing of two harmonies in this section. The first being a fairly widely spread twelve note chord; the other, a smaller eight note harmony stated as a repeating chord. These harmonies

The two chords are given below:-



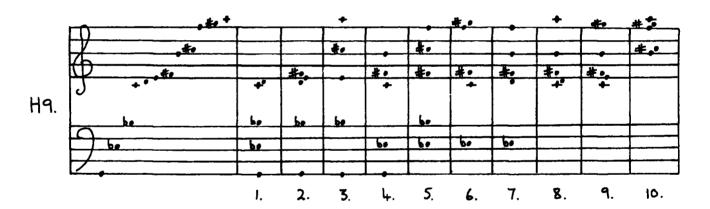
A gradual dynamic build up of the second chord leads to the next section.

This is the first of three unmetred mobile complexes, and here uses only one twelve note chord. The chord used has much in common with that in the slow chordal section, D. The reason for this becomes apparent later in the work. It ends on a six note chord containing four pitches common to both harmonies, (see below). The first hexachord is an important harmony with which the whole work ends.



This is the second of the harmonic mobiles. The whole work divides roughly, in the middle between H and I; so I acts as a sort of mirror to H. The harmony used for this section is the same as that used for D (ie. H4); and this has already been shown to be related to H8 above. Although more instruments are used in this mobile than in the last, it is still based on one twelve note chord.

- \overline{J} and \overline{K} . These are a direct repetition of $\overline{\mathbb{B}}$ and $\overline{\mathbb{C}}$.
- With this, we come to third and final version of the cor anglais melody (as in A and F). There are now six instruments accompanying it. The melody, as before, comes from tracing a path through the matrix, HI, this time going five along and five down. The accompanying chords are taken from successive hexachords around the perimeter of the matrix. The widest span reached by the cor anglais is used here, stretching from low G to high B^b(two octaves and a major third). The accompaniment, apart from moments of imitation at bars I90-I93 and at bar 206, remains in the same octave as previously, with E at its centre. As previously, motivic and rhythmic shapes from A are used, as also are multi-phonics. The cor anglais line reaches the most expressive point in the work.
- M This follows the same idea as in the previous slow chordal section, D; only it uses a different twelve note chord, and so different smaller chords are derived from it. These are shown below:-



Note how closely this harmony is related to H4 and H5 above. As before, the bass is slowly eliminated to leave the middle range chord of the following harmony.

- M This is a direct repetition of section E. Where previously, the harmony of the preceeding section, H4, had led to H5, here we have the harmony of M, H9, leading to H5. Instead of a diminuendo as found at the end of E signifying the new start of F here we have a crescendo followed by an expectant pause.
- \odot The final and climactic version of the mobile here uses two harmonies. They are the previously heard H8 (in section Ξ), and H4, which has already been shown to be related to H8. After a long static period

- on the final harmony, a bassoon E finally emerges; this is the opening note of the final section.
- P A direct repetition occurs here of section G. The same two harmonies are used, H6 and H7. As before, the chord H7 is repeated in a crescendo, but here it is cut short by a G.P., and the work ends with a fragment of the cor anglais melody from A, here accompanied by the two hexachords of H8 in reverse order. The way in which this fragment is reintroduced is influenced by Birtwistle's 'Triumph of Time'.

Version II.

After the first performance of this work, at the Britten-Pears School, it became evident that something was wrong in the mobile sections, (H,IandO). Certain instruments were dominating in their lines, and one became too aware of their individual ostinati. Thus the hoped for effect of a total harmonic field or web, with no isolated events, was not attained.

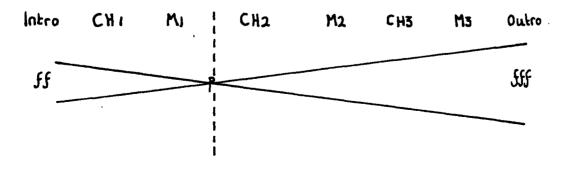
In thinking about how to solve this problem, it was suggested by David Lumsdaine, that I 'write out' the quasi-improvisatory effect I had wanted. That is, each instrument could remain with the same notes, since I did not wish to alter the harmony, but I could rhythmically alter each repetition of the previous version's ostinati and thus arrive at an overall non-strict complex. The players were still instructed to keep to their own individual approximate tempi, and to not try to 'line up' their music with other instruments.

It is hoped that this decision has managed to cure the problems in the first version, as shown audibly in the first performance.

What the Wind told me.

Winter I979- Spring I980.
Flute, oboe, cor anglais, clarinet, horn, bassoon and piano.
Written for a competition devised by the International Double Reed Society.(I.D.R.S.)

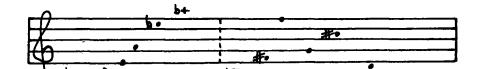
The original wording of the competition called for a basic wind quintet augmented with other double-reeds and piano, if desired, and up to eight players. I chose to augment the ensemble to include three double-reeds and to give each a prominent role in the piece. The first idea I had was to give each of these instruments a solo melodic line accompanied by a chordal background on the other instruments. These sections eventually became MI, M2 and M3 of the final work. These sections would span a pitch range from low to high on the instruments in order - bassoon, cor anglais and oboe. Five other wind instruments would provide the accompaniment, thus making possible the use of hexachordal harmonic progressions. Inbetween these melodic sections I thought of putting three chordal sections ChI, Ch2 and Ch3. These would abound in pauses to allow differing shades of timbre to appear between wind chords and held piano chords. Certain ideas of this kind had occurred to me after hearing certain works of Boulez (Eclats and Rituels); however the harmonic system I followed in these passages was a new concept to me, and certainly very unlike Boulez. The rising in pitch and general dramatic movement in these six sections originally suggested a kind of gradual crescendo overall; however I designed, by the addition of an intro and an outro to alter this basic shape to become the following:-



í

To a large extent, this structure was achieved through a tight system of harmonic integration and voice leading. The idea of the intro and outro grew in size, so that eventually the intro became the longest and possibly most important movement; here, as in an exposition, various ideas were set up to be recalled and sometimes developed later in the piece. The harmonic system of the intro was derived from the harmonies in the chordal sections, but remained incomplete until the end of the outro, where the last two harmonies occurred, fulfilling a quasi-tonic function.

All the harmonies in the piece are derived from one basic matrix which occurs unaltered in the M sections; from this we arrive at the Ch. matrices, and from these, the intro and outro harmonies. It therefore seems appropriate to describe the harmonic context of the piece, as it were, inside-out: starting with the M sections, then the Chs. then the first and last sections. Following this, I have set out what happens in each section, as it occurs within the piece, (ie. in order). The basic matrix is based on a I2-tone row as follows:-



	CI	C2	C3	C+	C 5	c6	C7	c8	C9	CIO	CII	CI2	
		>											
RI	IO	0	4	9	3	8	ΙΙ	6	5	7	I	2	
R2	8	IO	2	7	I	6	9	4	3	5	II	0	
R3	4	6	IO	3	9	2	5	0	II	I	7	8	
R4	II	I	5	IO	4	9	0	7	6	8	2	3	
R5	5	7	II	4	IO	3	6	I	0	2	8	9	
R6	0	2	6	II.	5	IO.	I	8	7	9	3	4	
R7	9	II	3	8	2	7	IO	5	4	6	0	1	9
R8	2	4	8	I	7	0	3	IO	9	II,	5	6	2
R9	3	5	9	2	8	I	4	II	IO	0	6	7	3_
RIO	I	3	7	0	6	II	2	9	8	IO	4	5	I
RII	7	9	I	6	0	5	8	3	2	4	IO	II	7
RI2	6	8	0	5	II	4	7	2	I	3	9	IO	6
							II	6	5	7	I	2	IO

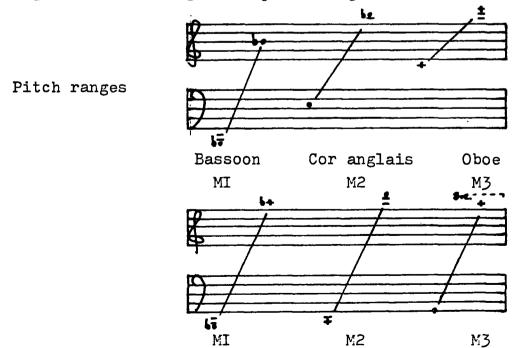
Basic matrix for MI, M2 and M3. The melodic line is taken, as in

previous pieces, by travelling through the matrix, four along and then four down. The accompanying five note chords are those remaining in each set of hexachords. So, for example, with the first four notes of the melody, RI, CI-4, we have the chords of:- CI, R2-6; C2, R2-6; and so on; with the second four melodic notes, C4, RI-4, we have the chords of:- RI, CI-3, and 5-6; R2, CI-3 and 5-6 etc.; for the next four notes, R4, C4-7, we have chords of:- C4, RI-3 and 5-6; C5, RI-3 and 5-6 etc. and so on through the matrix and back again.

The solo instruments in these sections were arranged so that each instrument did not occur in the previous melodic section; see below:-

	MI.	M2.	<u>M3.</u>
Solo	Bassoon	Cor anglais	Oboe
Accompanying	Flute	Flute	Flute
	Oboe	Clarinet	Cor anglais
	Clarinet	Bass-clarinet	Clarinet
	Bass-clarinet	Horn	Bass-clarinet
	Horn	Bassoon	Horn

The pitch ranges of these instruments which rise gradually are given below together with the general pitch range of the sections.



The pitches of the associated accompanying chords also rise gradually to give the lowest and highest notes of the piece. (See also Chordal sections and intro and outro).

Chordal section harmony.

I created in each chordal section one particular note which would sound in hollow octaves and therefore assume a dominant role. For each section, I chose as this note, the highest note from the following M section. That is, for ChI, the note was A^{\flat} , for Ch2, D and for Ch3, A. The way I chose to expose these notes was to manipulate the basic matrix as follows:-

Firstly, the top row of the matrix was rotated until the notes chosen above became the first note of the row (and hence the new axis of symmetry). This gave the following three rows:-

Ch I	8	II	6	5	7	I	2	IO	0	4	9	3
Ch 2	2	IO	0	4	9	3	8	II	6	5	7	I
Ch 3	9	3	8	II	6	5	7	I	2	IO	0	4

The twelve by twelve squares were drawn up under these rows. The first row would normally give a square with 8 as its axis of symmetry; what I then did was to rotate each row in the square so that the diagonal,8, became column I; ie. CI was all 8s. A similar procedure was carried out with the other two rows giving the following three versions of the matrix:-

```
W W F 60 0 1 1 0 0 0 4 W U
011363046714
111 6
2 2
10 2
10 4
10 2
10 2
10 2
11 7
11 7
6
2 4
9 II 3
3 5 9
  5 II 0

5 II 6

II 5 6 2 4

6 0 I 9 II

0 6 7 3 5
  9
6
11
10
10
7
7
7
8
11 III IIO 8
0 6 4 H 4 B 9 0 8
10
7
7
11
11
5
8
2
1
1
2
2
8
9
8
7
4
10
8
N N V ∞
9 7 8
II
8
```

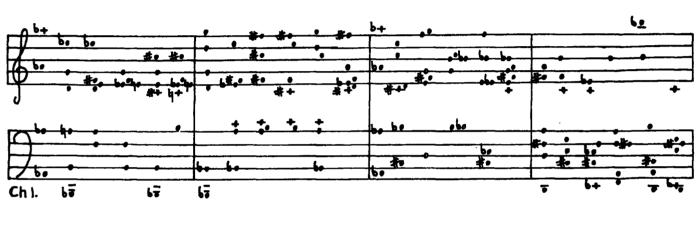
 ∞

1 2 10 8 4 6 10 2 7 7 0 6 1 7 0 7 10 1 7 10 1 6 1 0 7 4 6 7 4 6 9 4 6 9 6 7 0 9 6 7 0 9 6 7 0 864764758 V G O A 8 H V O I H G V H H G V paaaalqaaaaq H 9 0 D 6 8 P F 7 7 0 8 С И 4 8 И М М 4 8 Н 0 111 6 10 9 7 9 1 9 1 9 10 3 9 0 ω ν ω ν ο ο | ∞ н ∞ н 4 4 V O I 4 J O C C O O I I I 0 8 H H H O O O O O O H

4 W 4 O U O I C W 8 H C R

0 1 1 1 1 8 1 2 0 I V

Although row rotation was used earlier this century by Berg, among others, and hexachordal rotation by Stravinsky, the main influence on me when devising this procedure was David Lumsdaine's 'Hagoromo'. Each version of the matrix yielded twenty four hexachords, taken in the order:- CI,RI-6; C2,RI-6; etc., up to CI2,RI-6; then CI,R7-I2; etc., up to CI2,R7-I2. This system not only provided me with instances of plain octaves, but also chords with up to three notes occurring in octaves. I was able in this way, by careful arranging of the pitches of each chord, to arrive at a chordal progression exhibiting triadic implications. The complete chart of these pitches is given below.

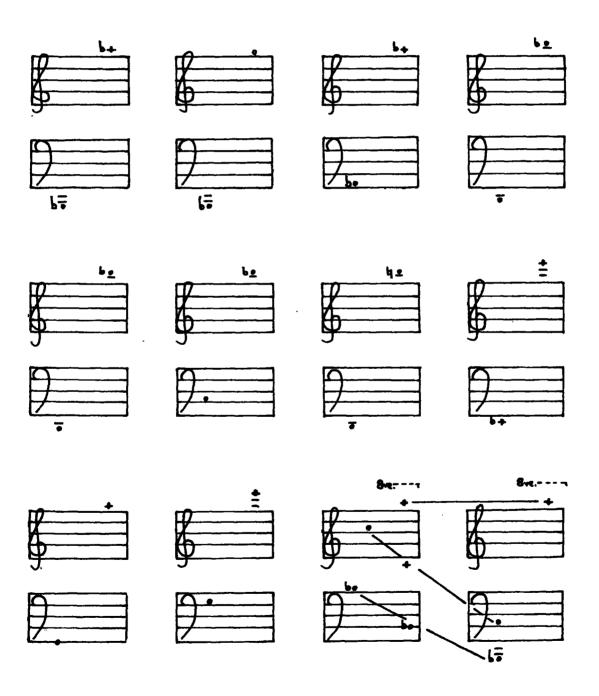






Intro and outro harmony.

From each of the twelve sets of chords set out in the chordal sections, (see above), I selected one I2 note chord which often emphasised particular notes. These I2 note chords were used in blocks in the intro and outro. The last two chords, completing the voice leading and harmonic progression were reserved for the end of the outro to act as a resolution to the piece as a whole. The ranges of these chords are given below.



Sectional analysis.

A. The intro starts at l = 60, with a piano grace-note figure, leading to a fortissimo I2 note chord. The idea here is one which becomes very important in the chordal sections B, D and F. The generally dramatic opening continues with dynamic envelopes of overlapping chords, which gradually subside to allow B' 'drones' to show through, (bars 18-22).

At bar 23, the first hint is given of an interrupting dance movement, at $\frac{1}{2}$ = 90. The idea for this faster dance rhythm interjection came from a piece of Balinese gamelan music I had heard in London the previous summer.

The drone idea continues with a further interruption, after which the drone accompaniment starts to sound 'mechanical' in its repeating ostinato figurations. Abruptly, at bar 44, a large double-octave D occurs on the piano: this is taken over in lesser dynamic envelopes by the other instrument.

This octave idea is another which becomes prominent in the chordal sections. After a G.P. a new idea starts. This is a faster repeating chord movement, at = 90, in a regular pulse with added sforzandi; an idea which becomes important in the melodic sections C, E, and G. It is abruptly interrupted by a fortissimo piano chord which is taken over by the other instruments. On this occasion they enter pianissimo which produces an effect of balancing timbres; again this is important in the chordal sections. The idea of regular chords being interrupted in this way continues until bar 73 where we have the first full dance section which has been trying to break through since bar 23. Gradually this, in turn, starts to sound 'mechanical' with its various motivic lines becoming repeated as ostinati. There is a great interruption to these proceedings - which is, infact, the opening chord of the piece; as this chord dies away, a simple pentatonic horn call is heard which acts as a bridge between this section and the next. This call is heard again towards the end of the whole piece where it heralds the beginning chord which is heard once more as the start of the outro section.

B. The first chordal section, $\bullet = 60$, starts with an open octave A^b . Several surprising harmonies unfold as this section weaves its way between piano chords held on a pause, and dynamic interspersed chords from the other four instruments. (see pages 52 and 53 for a harmonic analysis) I deas of balancing timbres from the first section become dominant here.

C. The bassoon is the first instrument to play a melodic role in this first melodic section at \$\delta = 80\$. Notes for the solo part do not adhere absolutely to the sequence outlined earlier, but deviate slightly by repeating two or three notes to create melodic progression (see bars I30-I40). A regular pulse chordal idea (see intro), occurs at bar I49, and the bass clarinet trill with dynamic chords, at bar I55, is an idea which recurs in later melodic sections; a similar episode occurs at bar I75. The idea at bar I82-I84 is another which recurs later. At bar I94 we have the first straightforward repeated chord.

Tension diminishes through this section by dynamic restraint and more space being allowed into the music; for example, the solo line at bars 202-206. At the end of this section we reach the 'P' in the general dynamic shape described at the beginning of this commentary.

- D. This is the second chordal section, \$\delta = 60\$, and follows the pattern set by the first. Voice leading is different (see previous chart), and we find for the first time a reference to the intro's dance movement (see bar 243).
- E. This is the second melodic section, = 80, with the cor anglais taking the solo role. It continues ideas found in the first melodic section; for example, repeated chords at bars 287, 295 and 297; regular pulse chords at bars 299-30I, and trills with attacked chords at bars 309 and 3I2. The section 3I5-3I7 was mentioned under .

 The slow moving solo passage from bars 202-206 is here truncated to a mere 4½ beats (bar 333-4), and the dynamic chords which end the section act to heighten the tension. The cor anglais high Bb leads straight to the next section.
- As. As before, the various ideas laid down in the previous chordal sections are repeated or extended; for example, the dance movement continues as an interruption from bar 359-363, but the final tremolando idea has only occurred in the intro (see bar 70). The final high G is to hang, unresolved, until the end of the next section.
- This is the most dynamic of the melodic sections and is permeated throughout by stabbing sforzando chords. Previous ideas are again picked up and extended; for example, the trill and chords at bar 383; repeated chords at bars 394, 399, 402, 424 and in a disjointed

- manner, at the end of bar 440. Regular pulse chords occur at bar 396-398 and at:4I2-4I5. The bars 408-4I0 have been referred to previously, and bars 4I8 onwards, the long held B^b acts as a drone idea used in the intro. A final trill and chord reference is made at bars 43I-433 and at 440 the highest note of the piece is reached in a Varèse type juxtaposing of two chords.
- H. The outro starts with the pentatonic horn call from the intro; this leads to a pianissimo statement of the work's opening bars. Then straight away the dance movement from the intro occurs, and builds up with its thematic ostinati, not to be interrupted by the chord, as previously, but this time to swing the harmony onto its final resolving chords, with the high A reached (finally) in the last section, and the Bb gradually dropping through two octaves to the bottom Bb of the opening. When this note is reached it is held while the G and E change octave positions on the cor anglais and clarinet (bar 476-477), then the steady pulse chords of the intro return in the new resolved harmony and continue to form an overlapping ostinato pattern as the clarinet and bass clarinet rise through the total harmony (without the lowest Bb and highest A), to end on a held minor ninth.

The Poet is E. E. Cummings.

Summer 1980.

Soprano, clarinet and glockenspiel.

Written for a composers' forum held in King's College, London in July I980 under the direction of David Lumsdaine, Anthony Gilbert and Nicola Lefanu.

Composers were invited to write a work for one of several groups of instruments, with or without soprano, and in this work to follow the scheme of repeating certain ideas while at the same time altering them in some way. I saw in this an opportunity to create on a small scale the sort of transformation processes I had followed in my previous works. Since I intended from the start to use the soprano, the first problem was to find a suitable text to set. I started reading certain poets I thought might provide the necessary text, and found one finally in e.e.cummings, (see below). Because he was the poet I chose, I decided to make a pun on Boulez's title, 'e.e.cummings ist der dichter'; there was no other reason or pretension for my choice of title. (Infact Boulez's own choice is amusing, since it comes from a misunderstanding between him and the work's commissioners, and centres on his unperfected use of the German language). Below is the poem I used.

these children singing in stone a silence of stone these little children wound with stone flowers opening for

ever these silently lit the children are petals their song is a flower of always their flowers

of stone are silently singing a song more silent than silence these always children forever singing wreathed with singing blossoms children of stone with blossoming

eyes
know if a
lit tle
tree listens

forever to always children singing forever a song made of silent as stone silence of song

Because of the constant repetitions of certain words, this poem lent itself admirably to the sort of transformation procedures I had envisaged. My first step was to write the vocal line quite freely; that is without a conscious reference to a system. Where the same word occurred I used the same melodic fragment. Voice leading occurred quite naturally. Having completed the first step, I went through this vocal line again altering certain motivic repetitions so as to produce an onward going transformation effect - see, for example, the various repetitions of the words 'children', 'singing', 'song' etc. (also the rhythmic variation used with the word 'silent/silence', which is always spoken not sung.)

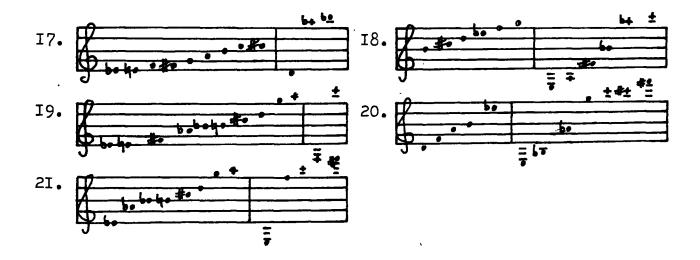
I found that the vocal line, because of motivic repetition and the deliberate emphasis on certain pitches, produced its own harmonic field. My next step was to build a clarinet line which would enhance that field. This line was not to be a mere accompaniment, but an equally important line in its own right; so it had to have individual harmonic integrity as well as building, with the vocal line, a complete harmonic field. I attempted to achieve this fusion in the following way.

I progressed along the vocal line until a note occurred which was in a different octave from that in which it had previously occurred. This new note became the first note of a new section which again followed the above procedure. In this way it was divided into twenty-one sections.

I isolated the individual pitches used in each of these sections and made them up to the full twelve note chromatic with those notes missing. Care was taken in pitching these notes with regard to:- clarinet motivic repetitions, voice leading (see chart), the clarinet range (low and high notes) and general small scale harmonic considerations. The result, as in several previous works of mine, produced a self-contained twelve tone harmonic field, but one from which tonal or triadic elements could be extracted and exploited.

In the chart that follows, the first series of notes in each case, is the vocal line pitches arranged in an ascending manner; the notes after the bar-line are those pitches added to make up the full chromatic (and used by the clarinet alone).





The glockenspiel part was added after the clarinet line had been written to articulate the piece rhythmically and to add timbral variation. The glockenspiel uses only those pitches already established (only sounding two octaves higher). The actual aiming point of the harmony is the twentieth section above; this returns at the very end of the work having only been hinted at previously (see the final d = c.60). The low E and high F# dominate while the B finally drops down to below middle C; the soprano's low D is prominent ('stone').

I hoped, in this piece, to achieve two independent harmonies acting together at the same time. Since the two lines were intended to sound separate, I further heightened this separation by writing independent rhythms for the two lines. Initially this presented problems. I put the metronome marks only at circa... - these to be followed only approximately. In this way strict counterpoint (eg. 3 against 4 etc.) was avoided; however it was necessary to harness the two lines fairly closely to produce the desired combined harmonic effect. I did this by a system of notation as follows:- the sign '9' at the end of a bar meant that the two players quit their notes at the same time (by means of a nod or whatever). In the same way, straight after a bar line players were to come in together. In order to catch each other up, or wait for one another, pauses 'A' were used liberally (but stratigically). At the first performance of the piece I found the players handling these ideas well; however it was obvious that a full score used by each player greatly enhanced their togetherness.

The piece, as a whole, is very simple, and free of restricting systems: it helped to show that the sort of organisation inherent in systems could be produced intrinsically, (albeit on a small scale).

In Praise of Ge-Nyan.

Autumn and Winter 1980-81.

Full symphony orchestra 3.3.3.3:4.3.3.0: timpani, piano, three percussion:strings.

Written for the Ian Whyte Award I98I (Scottish National Orchestra).

In the summer of I980 I heard a recording of music from a Tibetan Buddhist temple. One piece in particular caught my attention - In Praise of Ge-Nyan, which began with a fanfare intended jointly as a jubilant call to praise, and as a 'noise' to ward off evil spirits. The instruments used were: - various drums and small cymbols in the background, and Tibetan shawms and long trumpets in the foreground. The shawms, which played fast repeated notes, were very loud, nasal and brassy (more like a Western trumpet than an oboe); the long trumpets were something between a mellow trombone and a tuba, although they had the feeling of contained power in a way which the Western instruments do not. I thought to use this music in a piece of my own but was unsure how to. The dynamic power of the Tibetan instruments and the Rite to thich they were being used, made it essential to choose my own use carefully. Both would be out of place in a small work for a limited ensemble: also one felt bound to enhance the religious statement in the Tibeten Rate or otherwise be, in a way, sacriligious, whether or not one was in sympathy with Buddhism.

While still struggling with this idea, the Ian Whyte Award I98I was announced. This was a competition for a substantial piece for full orchestra, the winning work of which would be performed by the Scottish National Orchestra.

I had wanted for some time, to write an orchestral piece, but the resources of a student, and the limitations of the performing body of a university department had made such a venture impossible. (Impossible if one wished the work to be performed). Here was an opportunity to write such a piece with the possibility of a performance, and one in which the Tibetan music might be used in its full power.

The work is planned out in seven sections:-

Sections A and G Brass fanfares based on Tibetan music with chordal string accompaniment.

Sections B and E Melodic sections, wood-wind with string accompaniment; strings with wood-wind accompaniment, containing climaxes and 'jamborees'.

Sections D (i & ii) Chorales; the first being short and soft and the and F second, climactic.

Section C This occurs, itself divided into sections, around the D sections; it comprises of free time polyphonic passages for the brass and percussion.

A matrix was used to provide the melodic line in section B and E; and a manipulation of it was used for the chords in the chorale sections, D and F. The original row used was:-



From this a basic matrix of row against inversion was constructed. This was also used with its axis of symmetry as the first column by a process of row rotation, (see 'What the Wind told me').

	CI	C2	C3	C4	C5	c 6	C7	C8	С9	CIO	CII	CI2
RI	7	4	8	IO	5	II	0	2	3	· 9	I	6
R2	IO	7	II	I	8	2	3	5	6	0	4	9
R 3	6	3	7	9	4	IO	II	I	2	8	0	5
R4	4	I	5	7	2	8	9	ΙΙ	0	6	IO	3
R5	9	6	IO	0	7	I	2	4	5	II	3	8
R6	3	0	4	6	I	7	8	IO	II	5	9	2
R7	2	II	3	5	0	6	7	9	OI	4	8	I
R8	0	9	I	3	IO	4	5	7	8	2	6	II
R9	II	8	0	2	9	3	4	6	7	I	5	IO
RIO	5	2	6	8	3	9	IO	0	I	7	II	4
RII	I	IO	2	4	II	5	6	8	9	3	7	0
RI2	8	5	9	II	6	0	I	3	4	IO	2	7

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C7
                                     С8
                                         C9 CIO CII CI2
     CI
          C2
              C3
                  C4
                      C5
                            C6
RI
     7
          4
              8
                       5
                            II
                                0
                                     2
                                         3
                                             . 9
                                                  Ι
                                                       6
                   IO
              Ι
                   8
                       2
                            3
                                     6
                                                       IO
R2
     7
          II
                                5
                                         0 .
                                                  9
R3
     7
          9
                   IO
                       II
                            Ι
                                2
                                     8
                                         0
                                             5
                                                  6
                                                      3
              4
              8
                                6
                                     IO
                                        3
                                                      5
     7
          2
                   9
                       II
                            0
                                                  Ι
R4
              2
                                     8
                                              6
R5
     7
          I
                       5
                            II
                                3
                                         9
                                                  IO
                                                      0
                   4
R6
     7
          8
              IO
                   II
                       5
                            9
                                2
                                     3
                                         0
                                                  6
                                                      Ι
R7
              IO
                       8
                            Ι
                                2
                                     II
                                                       6
          9
                   4
                                         3
                                             5
                                                  0
                                                      5
R8
          8
              2
                   6
                       II
                            0
                                9
                                     Ι
                                         3
                                             IO
     7
                                                  4
              5
                            8
                                     2
                                             3
                                                       6
R9
     7
          I
                   IO
                       II
                                0
                                         9
                                                  4
RIO
     7
          II
              4
                   5
                       2
                            6
                                8
                                     3
                                         9
                                             IO
                                                  0
                                                      Ι
                                         6
                                     5
                                             3
                                                      3
RII
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          0
              I · IO
                       2
                            4
                                II
                                                  9
          8
              5
                       II
                            6
                                0
                                     Ι
                                         3
                                                  IO
                                                      2
RI2
     7
                   9
                                             4
```

Below is set out the basic ideas behind each section, how they are interconnected within the whole structure, and how they use the above matrix, (if at all). After this there follows a more detailed analysis which shows linkage and development of small scale ideas, and voice leading throughout the whole work.

Section A

This uses the original idea of Tibetan Rite music, with trumpets substituting for shawms, and trombones for long-trumpets. Percussion (crotales, bells, cymbols and bass drum), is added in a way reminiscent of the Tibetan music. The horns, piano and timpani are an original idea used to divide the main stream of sound and to contrast with the repetitious brass music. The continous 'curtain' of sound from the strings came to me after listening to Stockhausen's 'Trans' which also uses strings as a continous back-curtain. These string chords are derived, both in pitch and duration values, from strict serial procedures. Since I wanted a continous web of the total chromatic, I divided the strings into twelve. Then, since I wanted this web to be continously wide in range, I divided the total span of the strings (from low double-bass to high violin) into six areas, thus:-



I next wrote a twelve note chord which contained two notes in each of the above divisions.

This was the first chord in a set of six. I arrived at the other chords in this set by constructing a chart of octave positions derived by rotating the positions in the first chord. See chord I below, and its corresponding octave position chart, I, below that. To produce the next chord, the lower note in each pair was moved one position higher on the division scale above; the upper note in each pair was moved two positions higher. The positioning is cyclic, so that when a note 'rises out of' the top of position I, it enters the bottom of position 6, and so on.

For example, take the F and C^{\sharp} in position 4, in the first chord: in the next chord, F, the lower of the pair, rises to position 3; C^{\sharp} the upper note, rises to position 2 (see chord 2 below).

A set of six different chords was produced this way; it is played four times.

ord chart. Ch	ords I.	2 8ve	3•∵	4	5.	6
Positions		+ +	•	* <u></u>	‡	
I.						
2.	0 # *	***	b <u>e</u>		**	<u> </u>
۷.	\$					
3.	2.		b •	0	> •••	Þo
	9	•		•		#•
4.	#+	b.•	•	# ***	b •	•
5.).	Þø	bo		þ.	•
		+	70	#*		•
6.) .		40			#0
	/ >-	b•	#•		<u> </u>	# •

Octave position chart.

		ı.	2.	3.	4•	5.	6.	(7=	I) etc.
Г	Εb	I	5	3	I	5	3	, I -	
	A b	I	6	5	4	3	2	I	
Octave	D	2	6	4	2	6	4	1 2	
positions	F#	2	I	6	5	4	3	1 2	
	C	3	I	5	3	I	5	3	
	G	3	2	I	6	5	4	1 3	etc.
	C#	4	2	6	4	2	6	14	
	F	4	3	2	I	6	5	14	
	В	5	3	I	5	3	I	15	
	A	5	4	3	2	I	6	15	
	Вþ	6	4	2	6	4	2	6	
L	Ē	6	5	4	3	2	I	6-	}

Duration values of these chords were worked out as follows. I decided to have 2I bars of ${}^4/{}_4$ time signature, providing 84 beats. As with the pitches, I wanted I2 different patterns. Dividing this out meant that each pattern would last for 7 beats (I2x7=84). I then divided the seven beats into I2 sets of combinational values (ie. values that when added together produced seven beats). This list of I2 sets is written below:-

I	4 3	-	2 3	1
2	47	-	23	
3	3 3 .	-	31/3	
4	3	_	4	
5	2 3	-	41/3	
6	2‡	_	-4 4 -2 1	:-
7	47		24	
8	4 5	-	23/3	
9	4	-	3	
IO	3 \ ±	-	3€	
II	24	-	44	
12	2홍	_	43	↓

The next stage was to allot each set to one of the twelve string divisions; ie. no.I to the highest violin, no.2 to the next highest, down to no.I2 for the double-bass. After each string division has played its duration set, it moves to the next one down. Thus each string division plays each of the twelve duration sets in the complete 84 beats. The sets are cyclic, set I2 dropping next to set I, and so on. For an example see the first four pitches of the lower double-bass part:- E, $2\frac{1}{5}$ beats + $4\frac{1}{5}$, $4\frac{1}{5}$ beats; $4\frac{1}{5}$ beats + $4\frac{1}{5}$ beats; $4\frac{1}{5}$ beats + $4\frac{1}{5}$ beats, at bars I7 and I8, a rest for all instruments except the strings, thus allowing their background web of sound to show through; this idea also occurs in the Tibetan Rite music, where gaps of quiet chanting occur. This whole section is repeated with certain additions and important harmonic alterations, as the work's last section, $\frac{1}{5}$.

Section B

This section is essentially a vehicle for wood-wind melody. A melodic line, shared between the two clarinets, was taken from the basic matrix (see earlier) by simply following its perimeter: - RI, CI2, RI2 in reverse, and CI in reverse. Serially this is :- original row on prime note, inversion on last note of original row, retrograde of original row starting on the prime note, and retrograde inversion of the row on the last note of its inversion. The clarinet line is doubled at the unison and / or various octave displacements, by other wood-winds, and the xylophone. Long string chords appear as accompaniment being derived from three or four notes of the melody, together with added octaves. Certain pitches were emphasised singly, in fast repeated patterns, and in tremolos. String glissandi are also prominent. There is a climax, bars 75-78, followed by a 'jamboree' for piano, xylophone, timpani and percussion. This is derived from the same set of rows as the clarinet line described above. After the jamboree there is a passage of solo strings playing the chords they have played hitherto in this section in reverse order. The section ends with the completion of the clarinet line delayed from earlier.

Section C

For brass and percussion. This section is split into five passages which surround the first quiet chorales, Di and Dii . They occur in the

following order:-

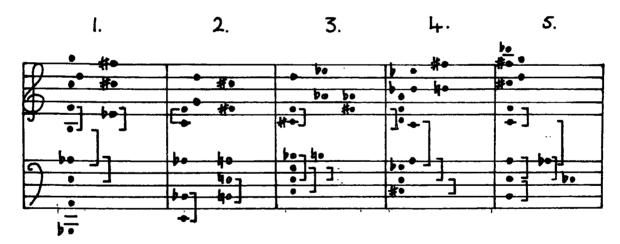
- I. Fairly long and loud; ending on a sustained chord.
- 2. Short, staccato and quiet; ending on a rest.Di First chorale entry.
- 3. Fairly long and loud; ending on a rest.
- 4. Short and quiet, crescendoing to loud.

Dii - Longer chorale entry.

5. Longest brass passage. Begins with trombone glissandi and repeated trumpet notes; suddenly it becomes quiet with a long held chord. Then there is a short burst of crescendo, from p to f, with an almost imperceptible string chord in the background.

The five passages are each based on a single twelve note harmony. These were chosen by considering voice leading, and important pitches for the various instruments. For example, the low trombone B^b of I, occurs again in A and G. The low E of 2 shows up the tritone B^b -E also occurring in A and G. The B^b travels from its lowest position in I, to its highest in 5. The trumpet G in I is important throughout the work, being the prime note of the original row and the axis of symmetry in the matrix.

The five harmonies are set out below:-



Note prominence of 4ths and 5ths, especially between C^{\sharp} and F^{\sharp} . The pairs of notes bracketed are glissando slides on the trombones.

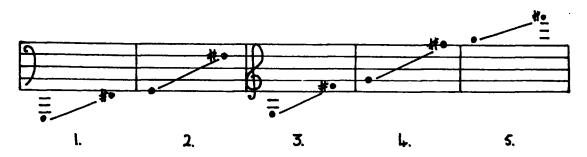
Section D (i and ii).

The first chorale, which is split into two sections by the interruption of brass from section [], comprises a series of chords derived from the rotated version of the matrix (see earlier). The chords are

obtained as hexachords in the following manner:- chord I is CI, RI-6, in this case six occurrences of the note G; chord 2 is C2, RI-6 and so on; chord I3 is CI, R7-I2 (again six Gs) and so on up to chord 24 which is CI2, RI-6. The cycle is completed by coming full circle to the six Gs of chord I. Thus we have 25 hexachords, each of which may contain two or more occurrences of the same note, (chord 3, for example, has two Abs). This gives emphasis to certain notes (G, etc.), and in other cases is used to thin the texture.

The first eight chords are used in Di, and numbers 9 to 25 in Dii. The pitch positions of the various notes in these chords was arrived at in the following way:-

I divided the chords into five series of five chords, as below:I,2,3,4,5: 6,7,8,9,10: II,I2,I3,I4,I5: I6,I7,I8,I9,20: 2I,22,23,24,25.
I then divided the total range of the instruments into five octaves:-



Next, I devised a chart which allocated one of the five octave positions to each note of the total chromatic in each of the twenty five chords. In making this chart, I started listing the chromatic on C, which, because of its initial position in the rotation process, dissociates itself from the rotating procedures of the other notes. Secondly, although the full chromatic is listed, the chords we are dealing with are at most hexachords, and sometimes contain even fewer pitches (chord I for example, is the single note G). Therefore it seems as though much of the chart is redundant:however it was necessary to make a complete chart in order to position those notes which are used.

Beginning with C, I numbered the pitch positions for the twenty five chords simply, as follows:-

C I,2,3,4,5: I,2,3,4,5: I,2,3,4,5 etc. there after rotating the sets,

 C^* I,2,3,4,5 : 2,3,4,5,I : 3,4,5,I,2 etc.

D 2,3,4,5,I: 3,4,5,I,2: 4,5,I,2,3 etc.

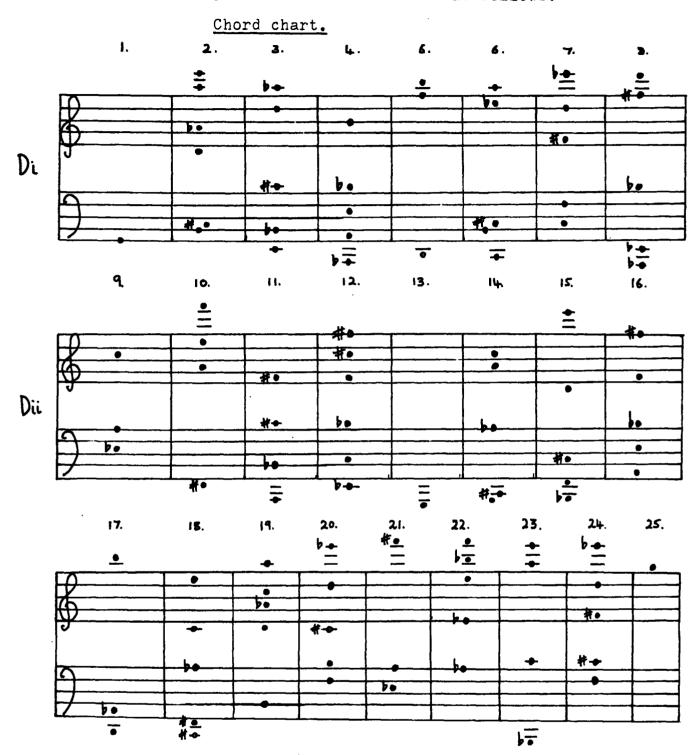
Continuing in this fashion, we finally achieve the following chart:-

Chart of octave positions for total chromatic in all 25 chords.

	25	5	4	7	Н	2	2	4	5	Н	2	2	4
	72	4	~	4	2	н	2	2	4	5	H	2	2
	23	3	2	~	4	7	н	7	~	4	5	н	2
	22	2	н	7	~	4	7	н	2	2	4	7	н
	21	I	5	н	2	~	4	7	н	٧	3	4	5
	20	5	М	4	r/	н	2	2	7	Ŋ	н	~	3
	19	4	2	2	4	7	н	7	~	4	7	н	2
	18	2	н	7	~	4	ī,	н	~	~	4	7	н
į	17	2	7	н	2	~	4	₽	н	2	M	4	5
	91	н	4	2	н	2	3	4	7	н	2	~	4
•i	15	5	N	2	4	7	Н	2	3	4	2	н	2
numbers.	14	4	н	2	3	4	7	н	2	3	4	7	I
num	13	3	7	Н	. ~	~	4	5	н	7	~	7.	5
Chord	12	2	4	7	н	٧	~	4	7	н	2	M	4
ů,	II	н	2	4	Ŋ	н	7	~	4	2	н	7	3
	0I	r.	н	2	2	4	ιν.	н	2	n	4	r,	ı
	6	4	5	н	2	~	4	5	н	2	2	4	5
	တ	3	4	2	н	~	7	†7	r)	н	2	~	4
	2	7	2	4	5	Н	~	3	4	rV.	н	7	2
	و.	Н	2	2	4	Ŋ	Н	2	n	4	Ŋ	н	2
	5	5	5	Н	~	2	7	2	Н	2	~	4	5
	4	4	4	7	н	7	~	4	Ŋ	н	2	3	4
	3	2	2	4	Ŋ	н	7	2	4	7	н	2	2
	2	2	2	~	4	5	н	2	3	4	Ŋ	н	2
	П	н	н	٧	m	+7	7	н	۷_	2	4	2	н
		ວ	* 5	А		[=]	[=4	*	Ü	AP	A	1 00	щ

Pitch.

This produces twenty-five chords which look as follows:-



The first occurrences of the chorale, Di and Dii, as discussed above, are separated by the very different music of the free-time brass sections, C. When the chorale reappears, as F., it is for full orchestra, and integrates the brass to gradually prepare the listener for the recapitulation of the first section A with its dominant repeated brass notes.

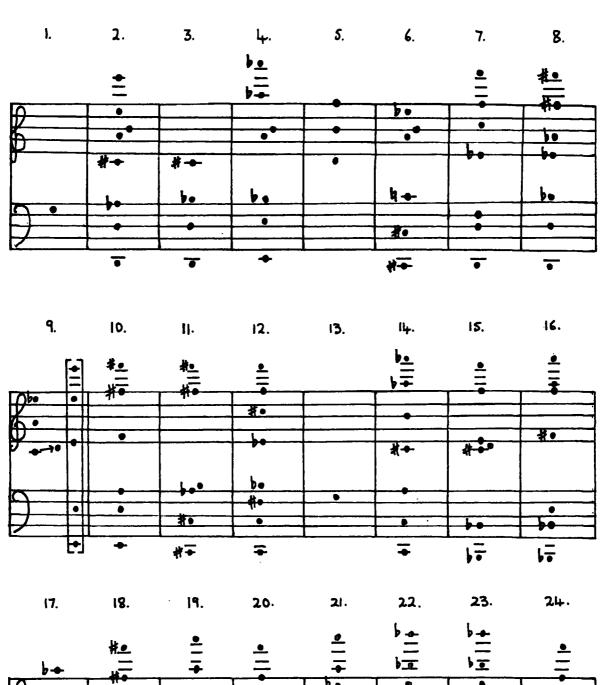
Section E

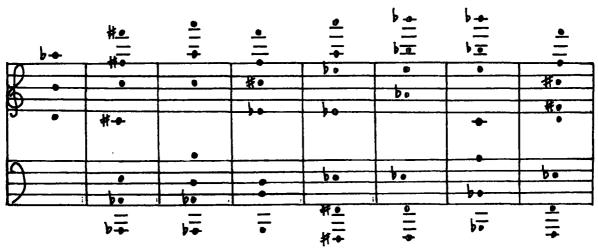
This whole section is very similar to the earlier section [B]. The roles are reversed, with the melodic line being taken by the divided violas, and the accompanying chords played on the wood-wind. The source for the melodic material is the same as in [B], that is, the perimeter of the basic matrix. Octave positioning of notes and rhythm are different, so an exact parallel is not aurally obvious; although there are many similarities:- emphasis of certain notes, repeated notes, tremolos on the tritone A/Eb, etc. The climax, bars I90-I94, and the following jamboree are the same. The following passage for I2 wood-wind (as previously for the I2 solo strings) is dynamically much more articulated, and leads to a passage with the initial string chord of B being held under fragments of past passages.

Section F

This section is an 'exploded' version of the earlier chorales Di and Dii. The chords used are based on those used previously in these sections; however the pitches within each chord have been rearranged and upper and lower octaves added. The pitch rearranging was organised to follow voice leading. As previously the note G is important, but the chorale moves gradually towards the first chord of section [G], with its low E in the bass and E in high strings. Throughout the section the brass become more insistent in their repeated notes, preparing for the trumpets in G . Percussion also becomes more hectic preparing for its outbursts in G . Bars 242-246 have been added as a reference to the climaxes in sections E and E . Their repeated octave Es, and a shortened jamboree reoccur; but then the octave Es bring us back to the chorale. Below is a chart

of the chords used.





Section G

Strings and brass start here as in section A, although there are differences in the piano and percussion parts, with tom-toms and glockenspiel added. After a much shorter break, allowing the strings to show through (bar 283), the brass shift up a fourth. Infact, the same intervals are used as previously:— tritone, semi-tone, and outer fifth; but here they are rearranged as :— fourth, semi-tone, and outer tritone. The effect is similar to classical music shifting back into the tonic at the end of the recapitulation. The note B moves up three octaves, and percussion activity increases for the work's ending.

Details of each section.

Section A

The most important notes in this section, are the trombone B^{\flat} and E, and the trumpet F. The B^{\flat} was initially chosen as a typical, strong bass note for the trombone. The bass tritone comes from the Tibetan original. The trumpet F strengthens the feeling of a B^{\flat} tonality; although this is never established, and the total chromaticism of the strings tends to negate any feeling of tonality.

Section B

The use of the basic matrix enables the note G (axis of symmetry) to act as a crucial note and a pivot. The opening octave Gs enhance this. The string chord at bar 26 is important. It is composed of the first four notes of the original row, with octave doublings. It returns throughout the work. The tritone E^{\flat}/A is emphasised at bars 34-38. The D^{\flat} , bar 39, which is the IIth note of the row, starts a new harmonic phrase.

The first large octave span occurs at bar 43; here it as an E^{\flat} . This recalls the E^{\flat} / A tremolo and also acts as a leading note to the later E octaves. Bars 46-50 show a major 7th tremolo B^{\flat} / B^{\natural} over a quiet E which reveals a C triad. C is picked up again at bar 59 as the third long held note. These three held notes, G, D^{\flat} and C form the intervals:-fourth, semi-tone, tritone, which are the intervals used by the brass in A and A and A and A new staccato idea occurs at bar 60 before a large built up tremolo between A and A and A (fourth, semi-tone, tritone) resolve onto a fast repeated octave A. The short jamboree leads to the

solo string chords which, being a mirror of the previous string chords, begin on octave E.

Before they finish, the clarinets again appear quietly on E, although this time they do not resolve triadically.

Section C

Most of the points concerning pitches and harmony in this section have been covered previously. The harmony of the first held chord (page II of the score, first system) emphasises the B^{\flat} , A and E in the trombone in section G, although the upper harmony is less straightforward.

Other crucial pitches, in harmonic progressions, can be easily seen on the chord chart above.

Section D (i and ii)

Important notes here are the obvious unison Gs (bars 97, II5 and I32), the low E of bar 99, and the fifth E^{\flat} / A^{\flat} at bar I06. The E^{\flat} moves up to become the highest note in the following brass section: then it moves down to become the bass note of the first chord of Dii. A and E^{\flat} are emphasised, recalling the earlier occurrence of this tritone.

Section E

This contains many of the pitch relationships heard in $\mathbb B$. It opens on octave Gs, without the previously accompanying string chord; then the first large octave span occurs on $\mathbb F$, (where in $\mathbb B$ it was on $\mathbb E^{\flat}$). A similar tritonal tremolo occurs between $\mathbb E^{\flat}$ / A as previously. The held $\mathbb D^{\flat}$ (here $\mathbb C^{\sharp}$) is played (bar 154), although here a repeated octave $\mathbb A^{\flat}$ is set up to be played in bar 159 instead of the previous $\mathbb E^{\flat}$. The second tremolo of a major 7th is not as marked as in $\mathbb B$ and here uses the notes $\mathbb C^{\sharp}$ / $\mathbb D$ with $\mathbb B^{\flat}$ emerging. This $\mathbb B^{\flat}$ at bar 166 is repeated quickly, as it is by the trumpets in $\mathbb G$; the viola still presents the quiet $\mathbb E$ ending, with the $\mathbb C$ triad as before. Octave $\mathbb G$ s are once more stated, although more dynamically than before (compare bars 52 and 168-170).

There is no third held note before the 'poco piu mosso' passage as there was in B. The held notes there, G, D^{\flat} and C with its first octave span of E^{\flat} s is here balanced by held notes G, C^{\sharp} (= D^{\flat}), and an early octave span of Fs. In B the E^{\flat} s rise, as leading note to the octave Es; in E, the Fs drop to E.

The tremolo E^{\flat} , A, and D, the octave Es and the jamboree are all as in B. The solo wood-wind chords balance the solo string chords in B, but here the B^{\flat} s in bars 208/9 echo those of bars I64-I66; and the chords end on a decisive octave G under which the viola E occurs, leading us to expect the throw away played by clarinet in bar 94; instead we are led to the string chord hitherto missing from this section. This acts to balance the two sections B and E; a balance which is enhanced and completed by the fragmentary references to previous material which occurs on page 26 of the score. This passage ends with the delayed throw away on viola.

Section F

The unison G which begins this climactic chorale reminds us of the opening of sections B and E; however here it is quickly taken over by the statement of the chorale by full orchestra with percussion. The ultimate goal of voice leading in this section is to arrive at the trombone Bb and trumpet F at the start of section G. Crucial notes include: - G, bar 226, the Ds of 227-229 acting as flattened leading notes to the E of 230, both chords retaining the upper octave Ab and inner Bb. Eb is prominent again in the chords at bar 234/5. The low D then leads via the Ebs in the tremolo section to the octave Es, bars 242/3. The E is picked up again at bar 246, and leads via the upper F and Ft to unison G at bar 25I. Low Bb is emphasised in bar 256, and at 257 the forthcoming Bb/E tritone is heard on the timpani. Gradually the bass notes drop to F^{\sharp} , then $F^{\,\sharp}$; the upper voices rise to B. The last three chords of this section (numbers 22, 23 and 24 on the chart) act as a kind of harmonic progression in Bb as follows; tonic second inversion, tonic root, dominant. From bar 274, the trombone F (dominant) drops to low Bb; the double bass F drops to E; the trumpet high F drops an octave and low F# drops a semi-tone to F. Other notes remaining static through part of this chordal movement, or forming static intervals, can best be seen by consulting the chord chart above.

Section G

As mentioned above, harmonies here are much as in \mathbb{A} . The notes \mathbb{B}^{\flat} , \mathbb{E} and \mathbb{F} , having gone through many usages and relationships now return in their original 'tonic' function. However the change of harmony at bar 283, stressing the notes \mathbb{E} , \mathbb{A} and \mathbb{B}^{\flat} , shows the ambiguity of this

'tonic' feeling. The E, which has been ever present and important throughout the work, (in the octave Es etc.), is now acting as the bass to the work's crucial pitch relationships. The trumpet F, of \overline{A} , has risen to the tonic, B^{\flat} ; and the note A has taken over the role of E in the first section (ie. the upper of the two trombone notes).

As with several previous works, this piece is concerned with initial juxtaposing and later amalgamating of different materials. In this piece, the two types are heard in conflict right from the start ie. the dynamic brass fanfare and the slow moving chordal accompaniment. The development and more extreme contrasting of these is carried out in the central free time brass section and the two chorales Di and Dii. The culmination and joining of the two comes in the last chorale, F, before the work's final resolution in G. It was necessary to separate the three stages of this process with a different kind of music - the two melodic sections; although, as has been seen, by inclusion and developing of similar passages, these two sections become part of the one continous whole.

The Poet is E. E. Cummings.

<u>by</u>

David Morris.

these children singing in stone a silence of stone these little children wound with stone flowers opening for

ever these silently lit the children are petals their song is a flower of always their flowers

of stone are silently singing a song more silent than silence these always

children forever singing wreathed with singing blossoms children of stone with blossoming

eyes know if a lit tle tree listens

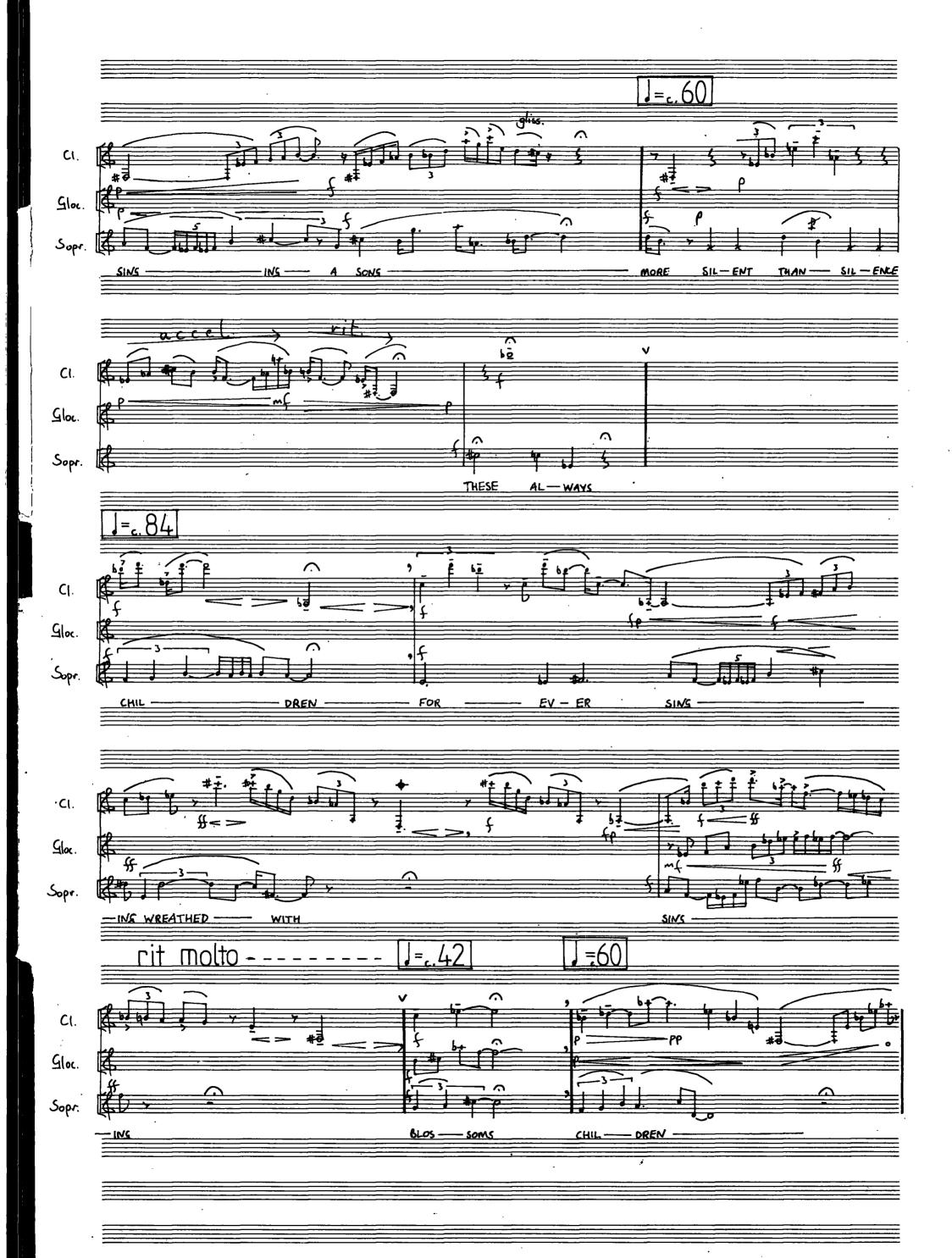
forever to always children singing forever of silent as stone silence of song

This piece has been written in such a way that individual players follow the metronome marks only approximately: in this way rhythmic counterpoint will not occur exactly 'in line'; the players should therefore not attempt to make their parts 'fit together'. After each bar-line the players should start together (a nod from one player should facilitate this). The sign ' ? ' at the end of a bar means the players should quit their notes together (again a nod is advisable). The pause 'O' should only slightly elongate a note's value, & is used to ensure that players end phrases together.
The sign 'V' indicates a breath. Accidentals apply only to the notes they precede unless immediately repeated. The sign ' indicates a multi-phonic. The Clarinot part is written throughout in bb; the soprano must bear this in mind when pitching notes.

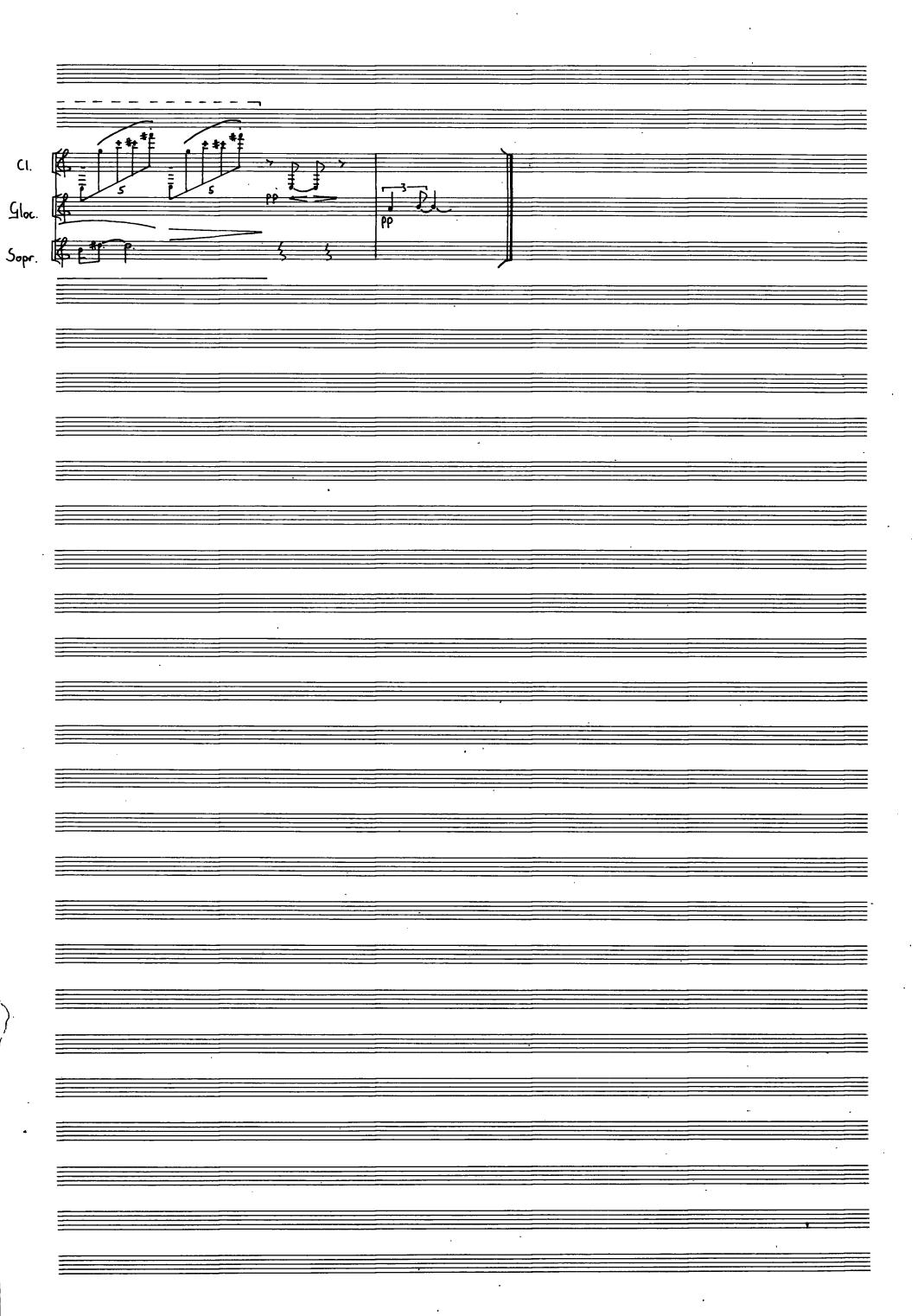


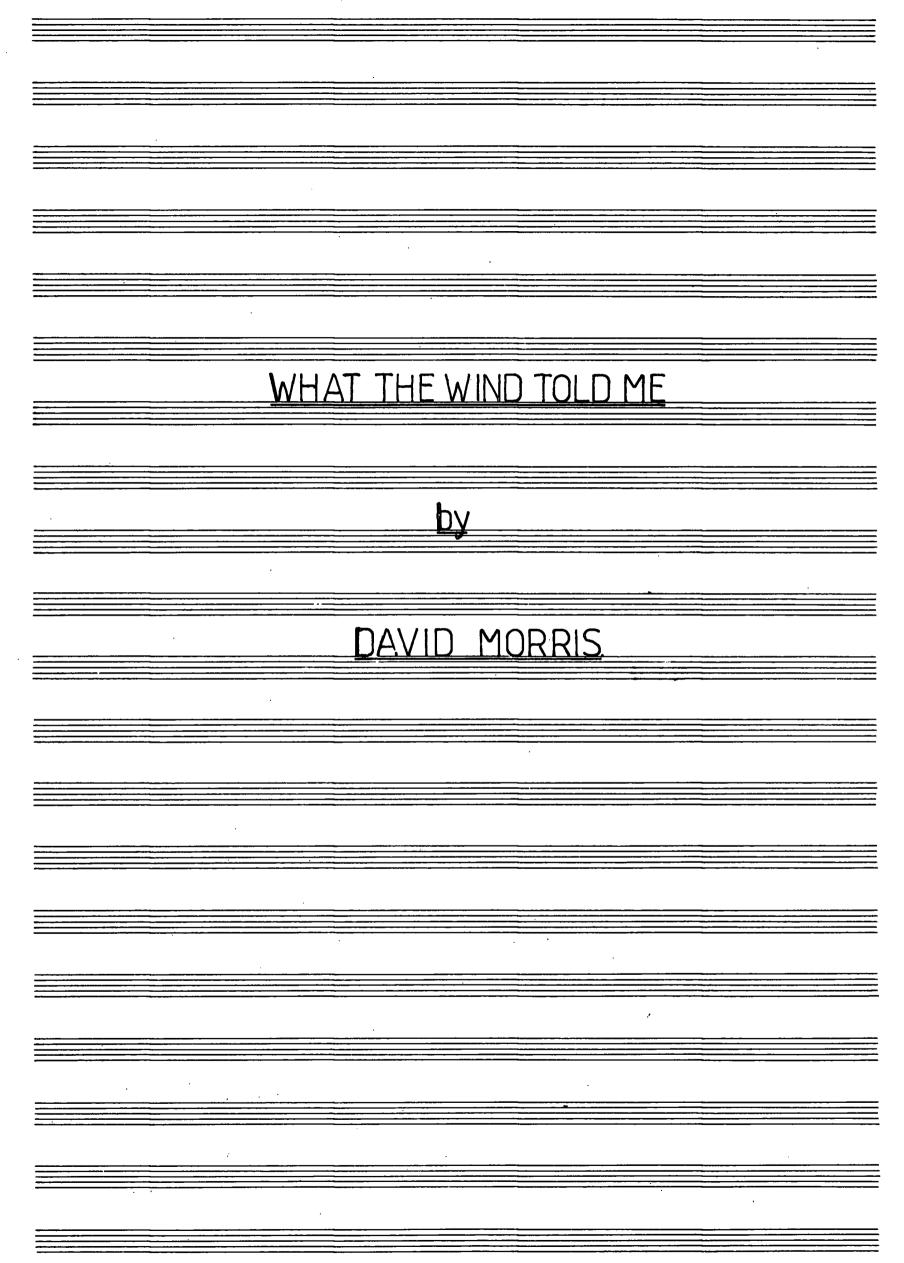














<u>Instrumentation.</u>
FLUTE
CLARIMET in Rb
HORN in F Bassoon
PIANO
All instruments are written at pitch.
Accidentals apply only to the note they precede, unless immediately repeated.
The sign & designates a multi-phonic.
The sign A means hold note until the end of the bar.
"WHAT THE WIND TOLD ME" was written for the International Double Read Society, 1979-80.

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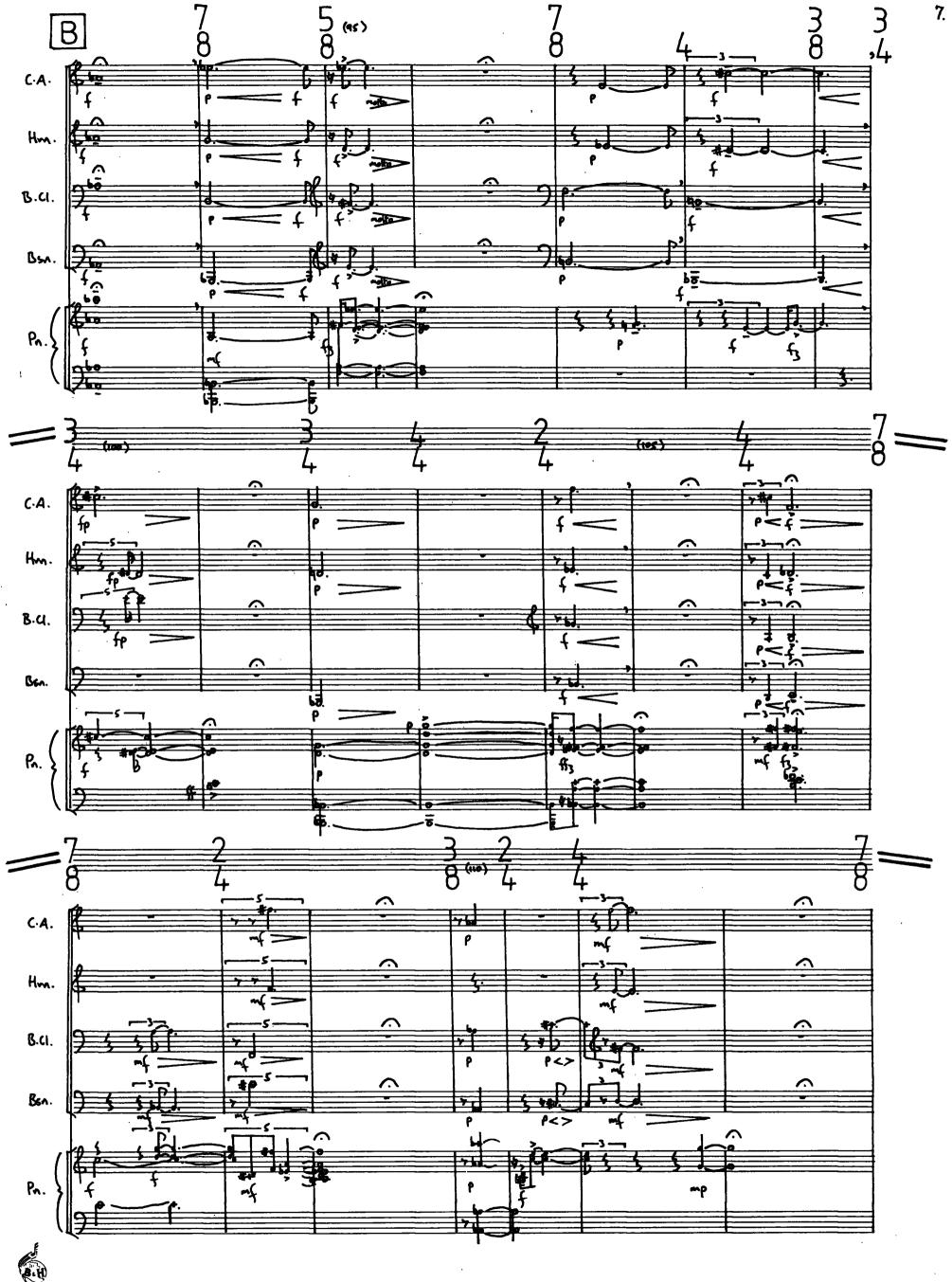






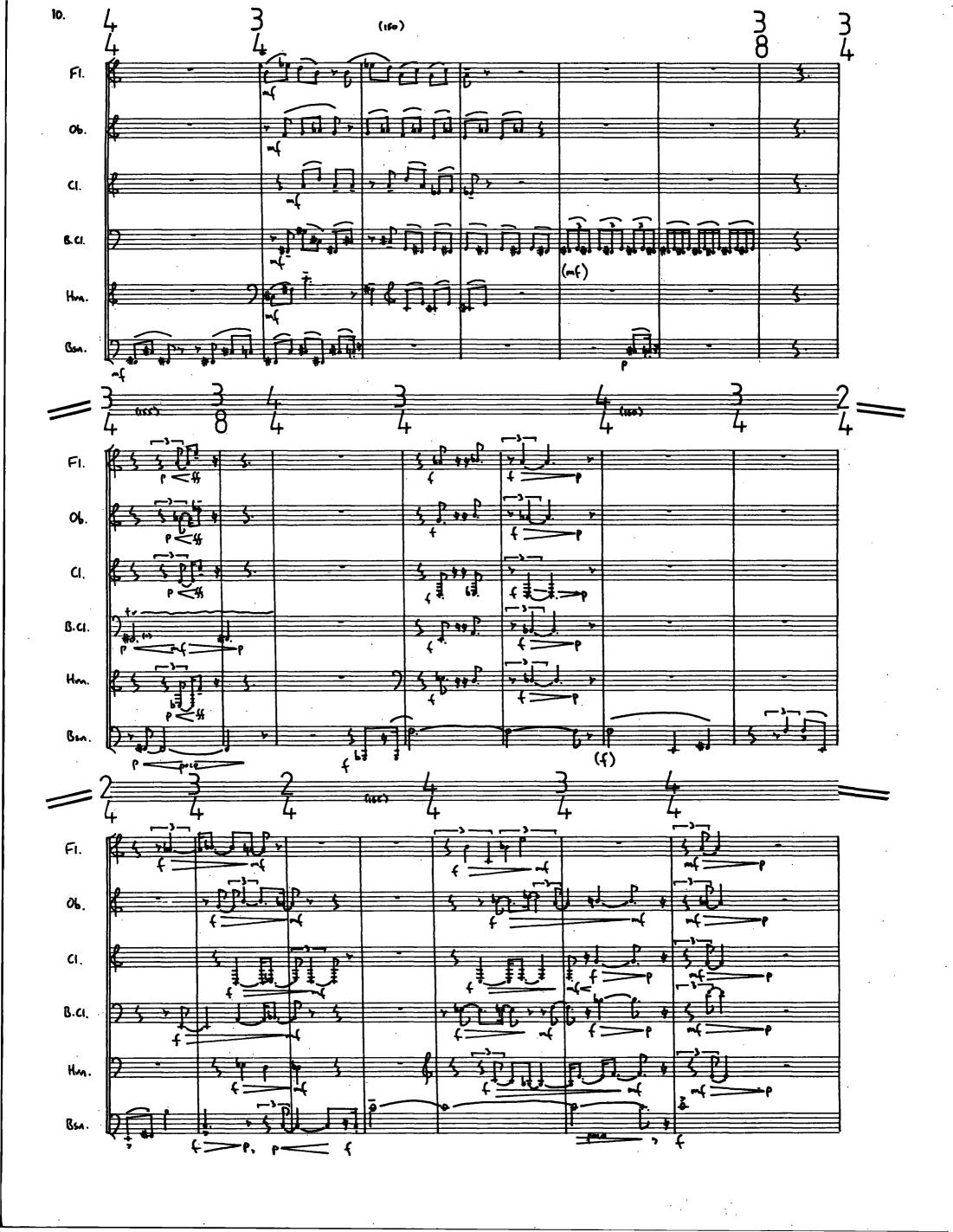
6. cresc -FI. C·A. CI. B.CI. BSA. PA. L.V. 60 NO Fī. pause Ob. molto **C**•**A**: andlo a. melto B.CI. molto o Bsn. € 65

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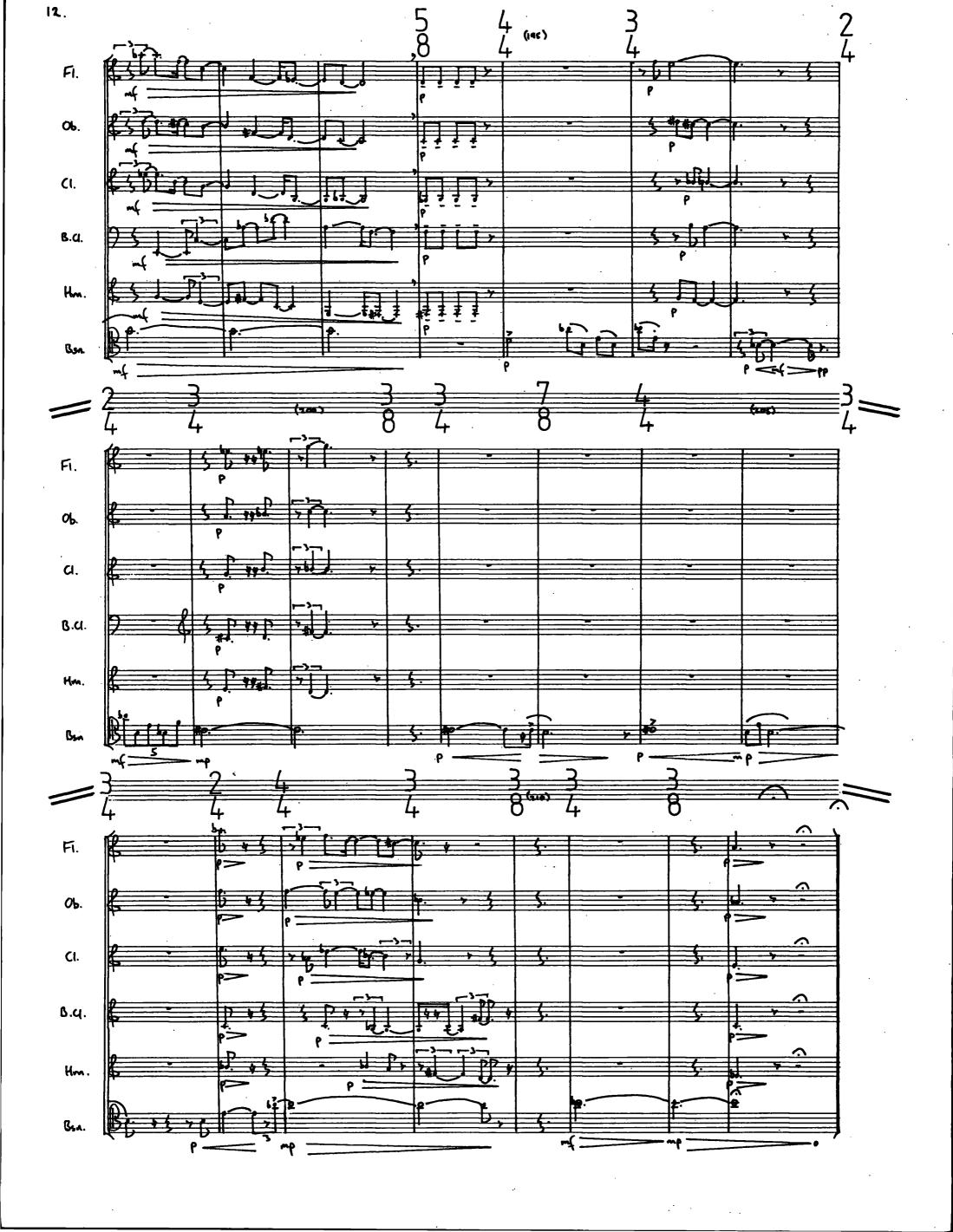
















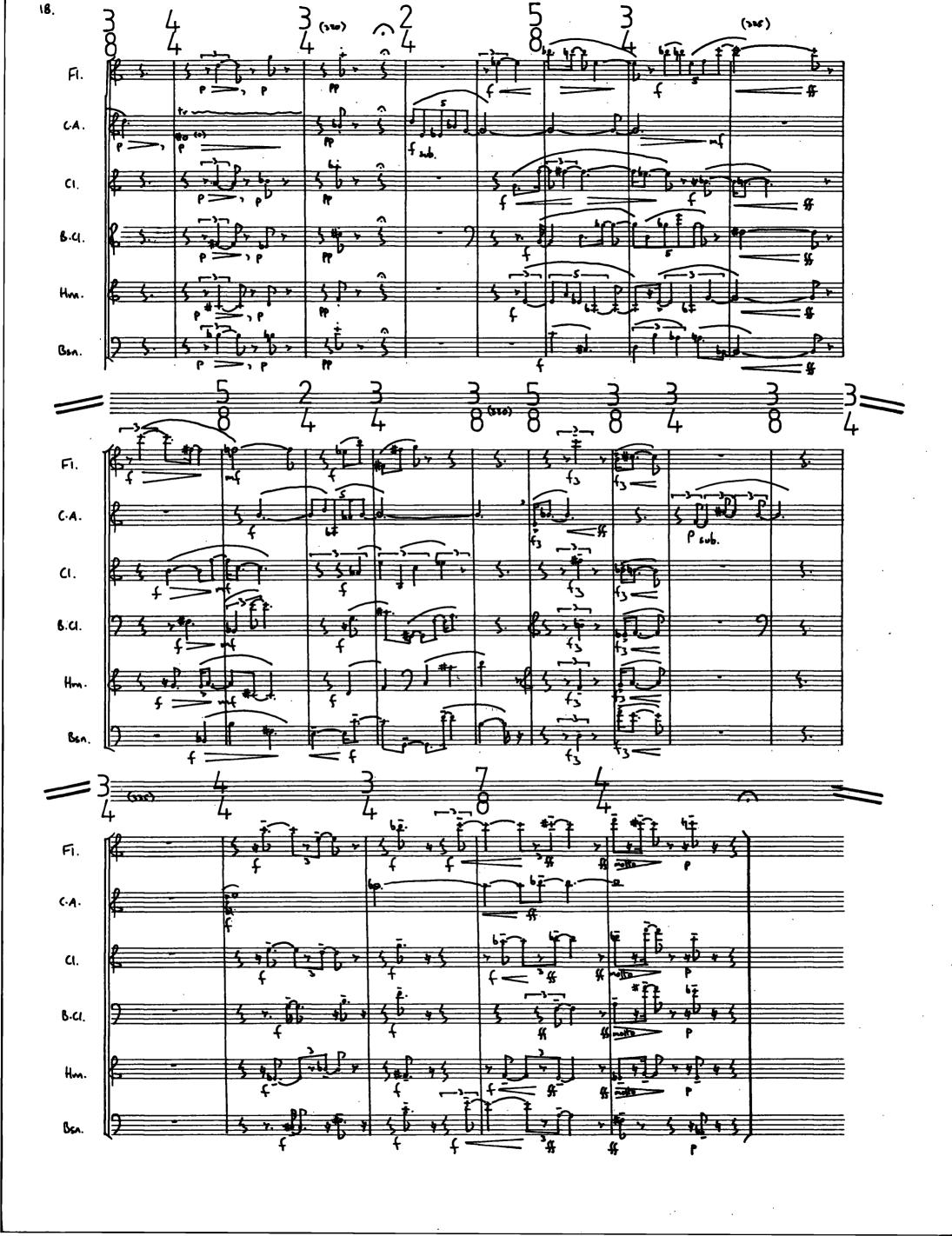








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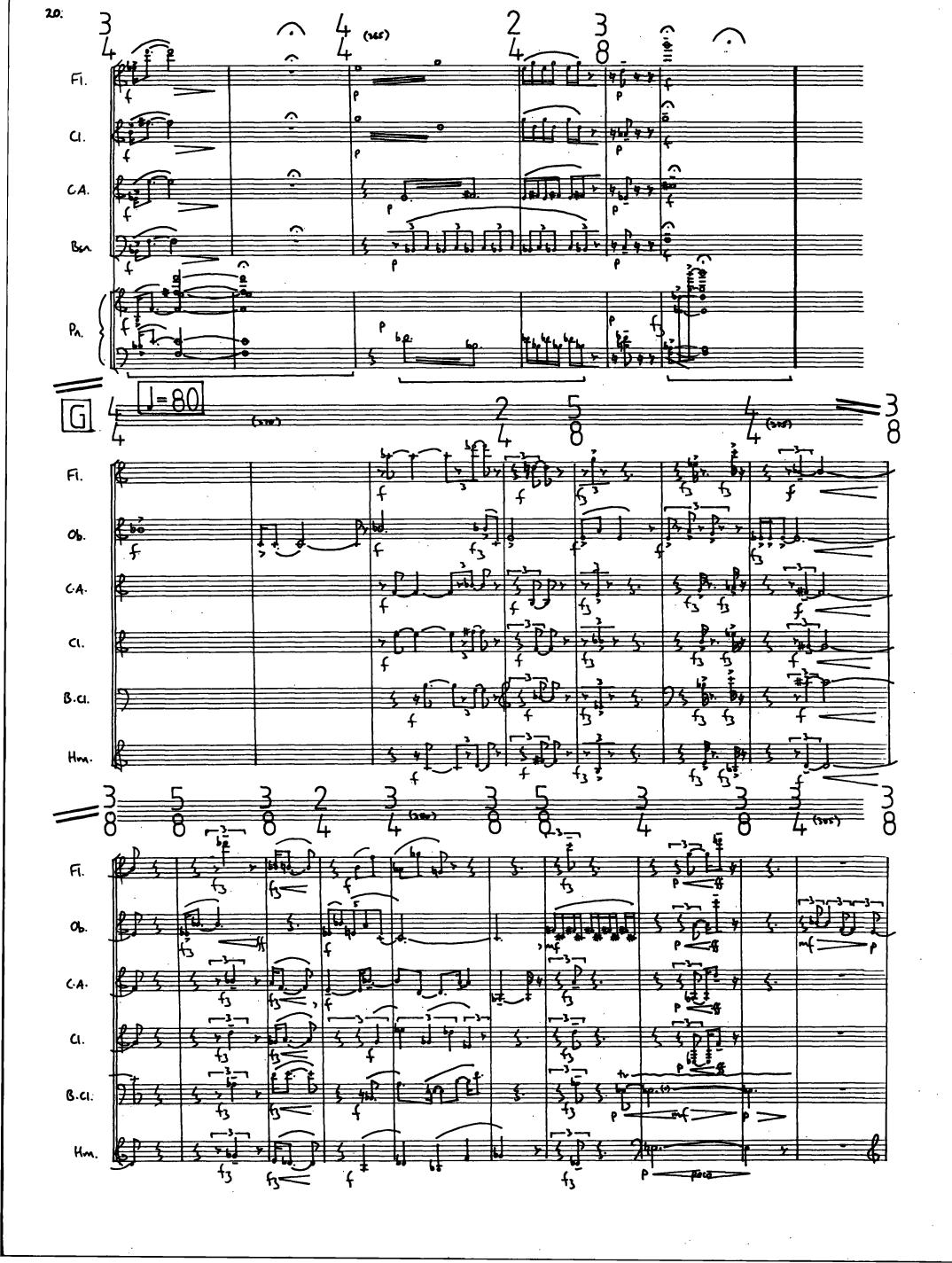


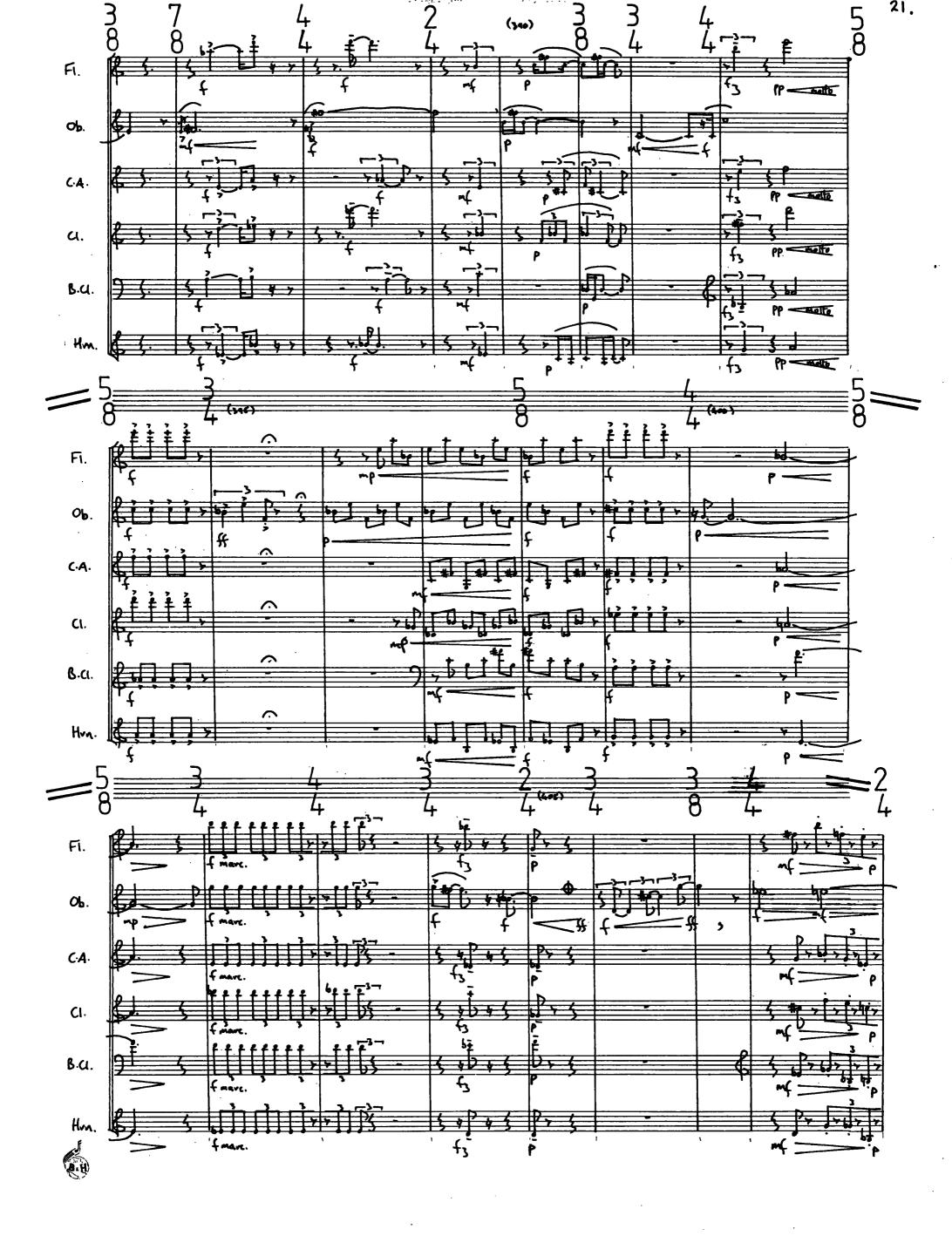


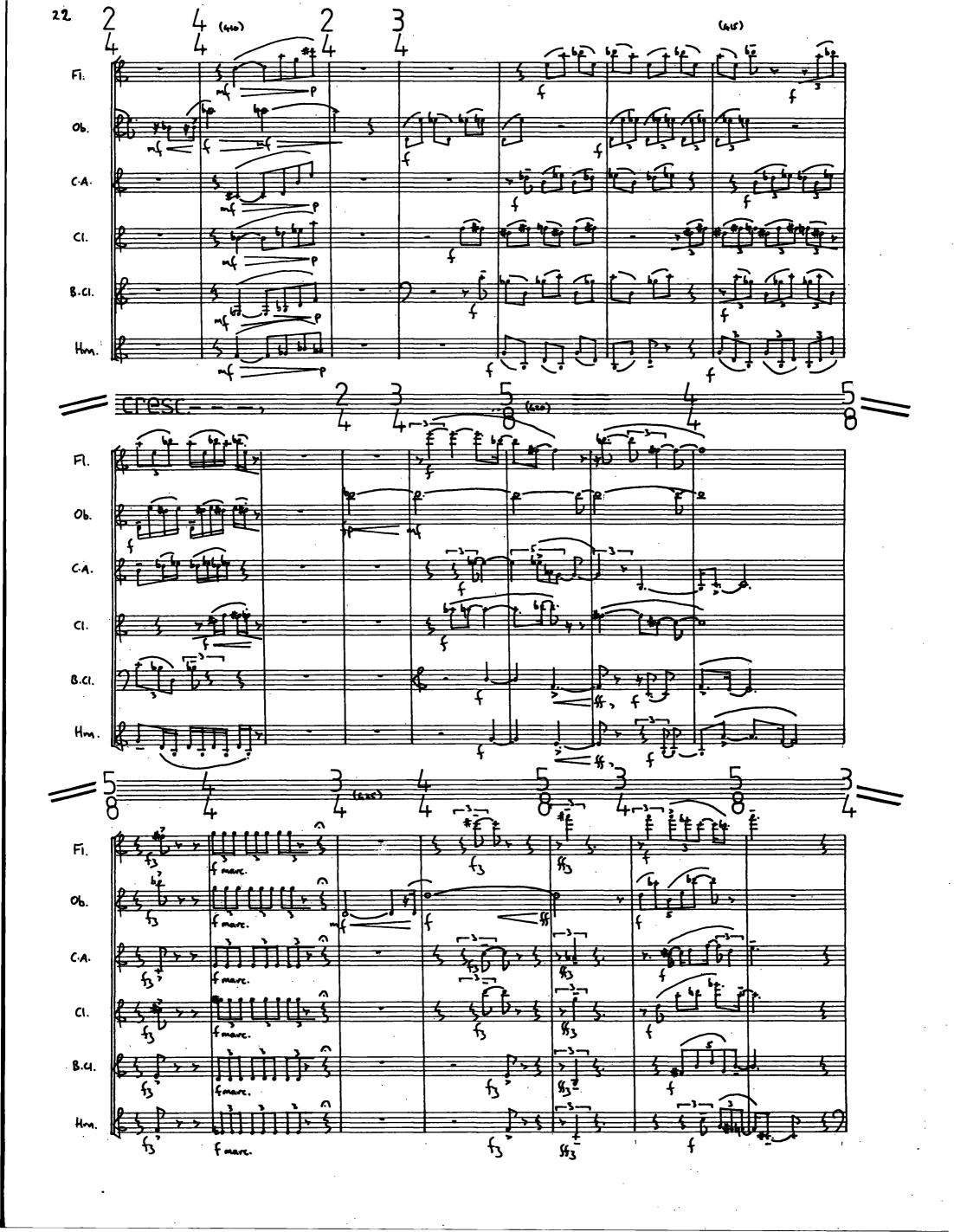
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<u>A Dialogue from Faustus.</u>

<u>by</u>

<u>David Morris.</u>

MARGARET: PROMISE ME, HENRY!

FAUST: WHAT I CAN!

MARGARET: HOW IS'T WITH THY RELIGION, PRAY ?

THOU ART A DEAR, GOOD-HEARTED MAN,

AND YET, I THINK, DOST NOT INCLINE THAT WAY.

FAUST: LEAVE THAT, MY CHILD! THOU KNOW ST MY LOVE IS TEMPER;

FOR LOVE, MY BLOOD & LIFE WOULD I SURRENDER,

AND AS FOR FAITH & CHURCH, I GRANT TO EACH HIS OWN.

MARGARET: THAT'S NOT ENOUGH: WE MUST BELIEVE THEREON.

FAUST: MUST WE ?

MARGARET: WOULD THAT I HAD SOME INFLUENCE!

THEN, TOO, THOU HONOUREST NOT THE HOLY SACRAMENTS.

FAUST: I HONDUR THEM.

MARSARET: DESIRING NO POSSESSION.

'TIS LONG SINCE THOU HAS BEEN TO MASS OR TO CONFESSION.

BELIEVEST THOU IN GOD ?

FAUST: MY DARLING, WHO SHALL DARE

"I BELIEVE IN GOD" TO SAY ?

ASK PRIEST OR SAGE THE ANSWER TO DECLARE,

AND IT WILL SEEM A MOCKING PLAY,

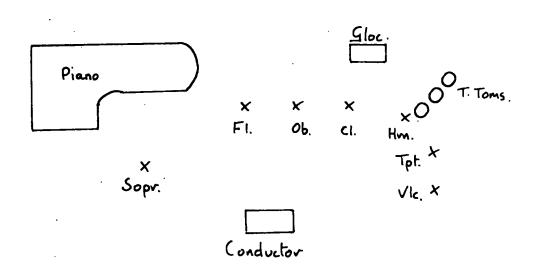
A SARCASM ON THE ASKER.

MARGARET: THEN THOU BELIEVEST NOT!

<u>Instrumentation.</u>

```
SOPRANO
FLUTE
OBOE
CLARINET in Bb
HORN in Bb/F
TRUMPET in C
GLOCKENSPIEL
PIANO
TOM TOMS (3)
'CELLO
```

<u>Seating.</u>

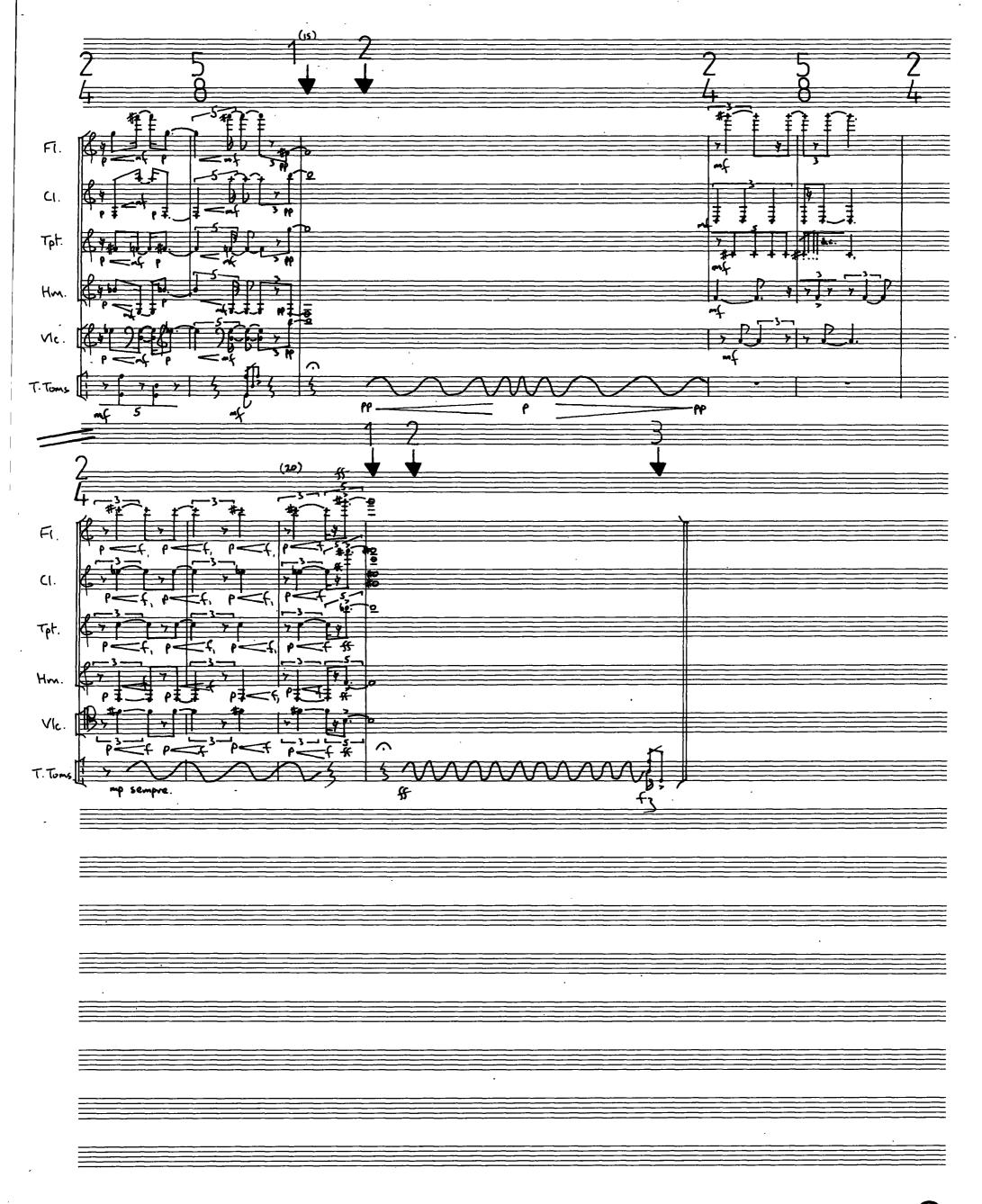


ACCIDENTALS APPLY ONLY TO THE NOTES THEY IMMEDIATELY PRECEDE, UNLESS REPEATED.

THE SIGN
SIGNIFIES A DOWNBEAT FROM THE CONDUCTOR.

ALL INSTRUMENTS, EXCEPT GLOCKENSPIEL, WRITTEN AT PITCH.







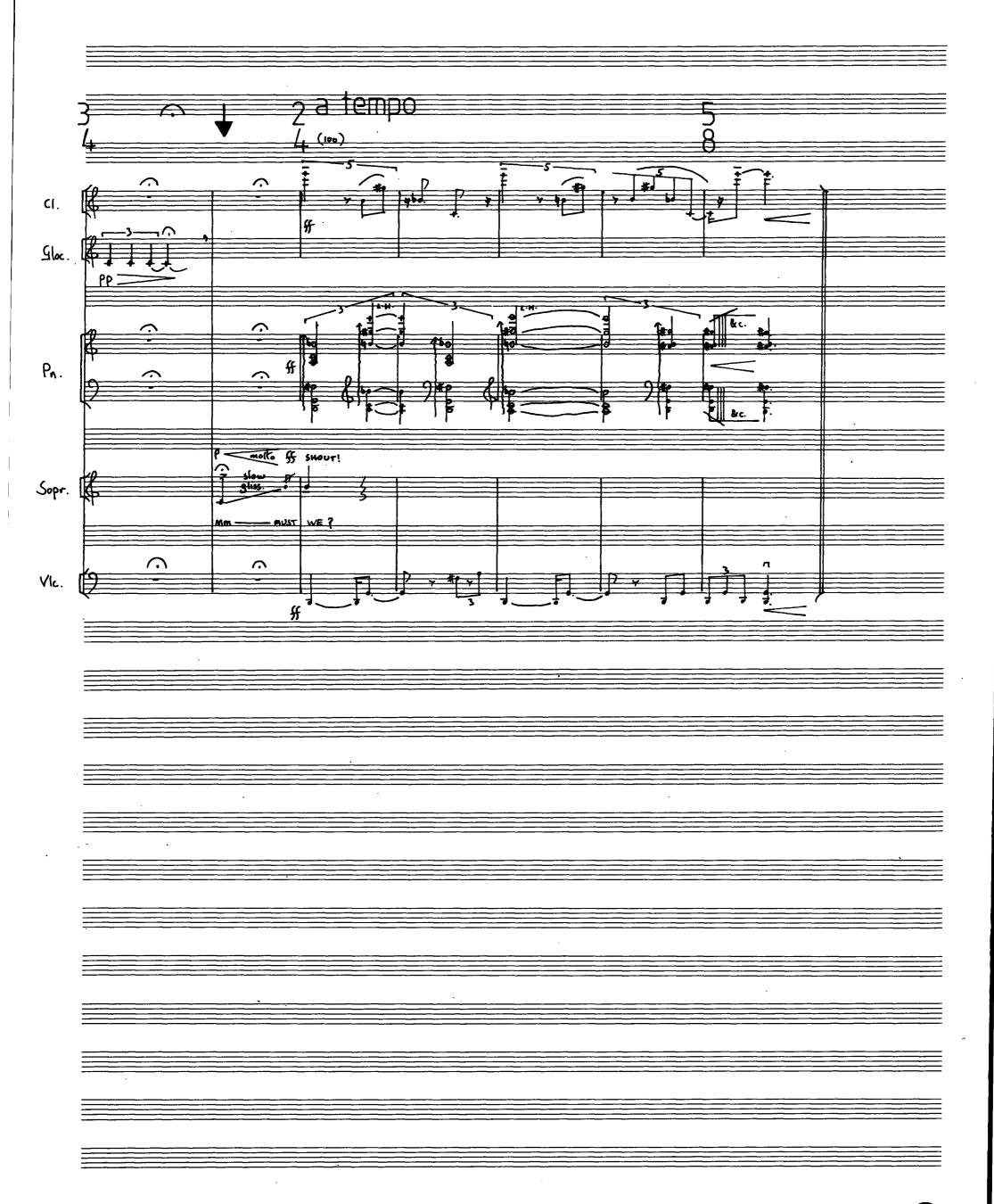




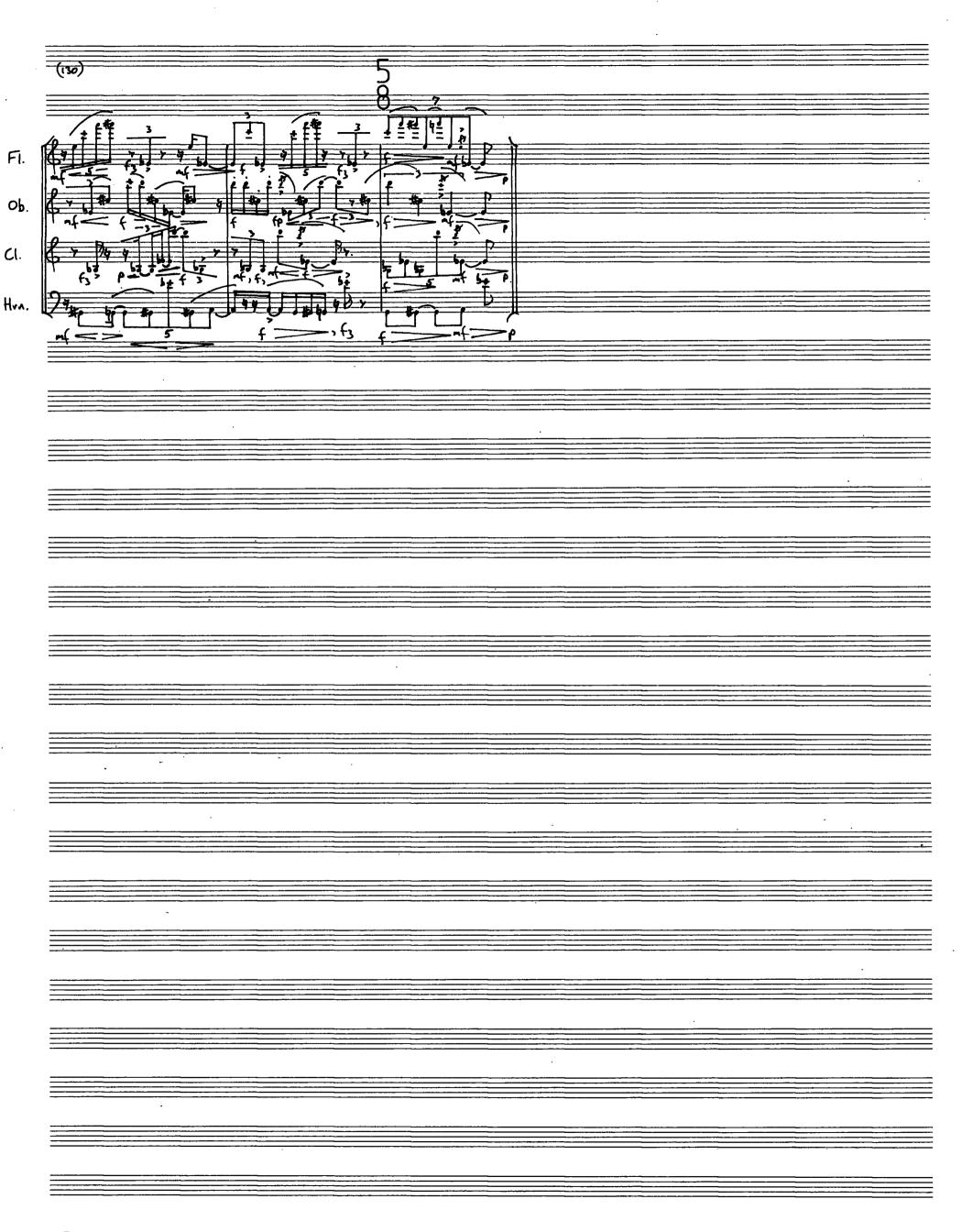






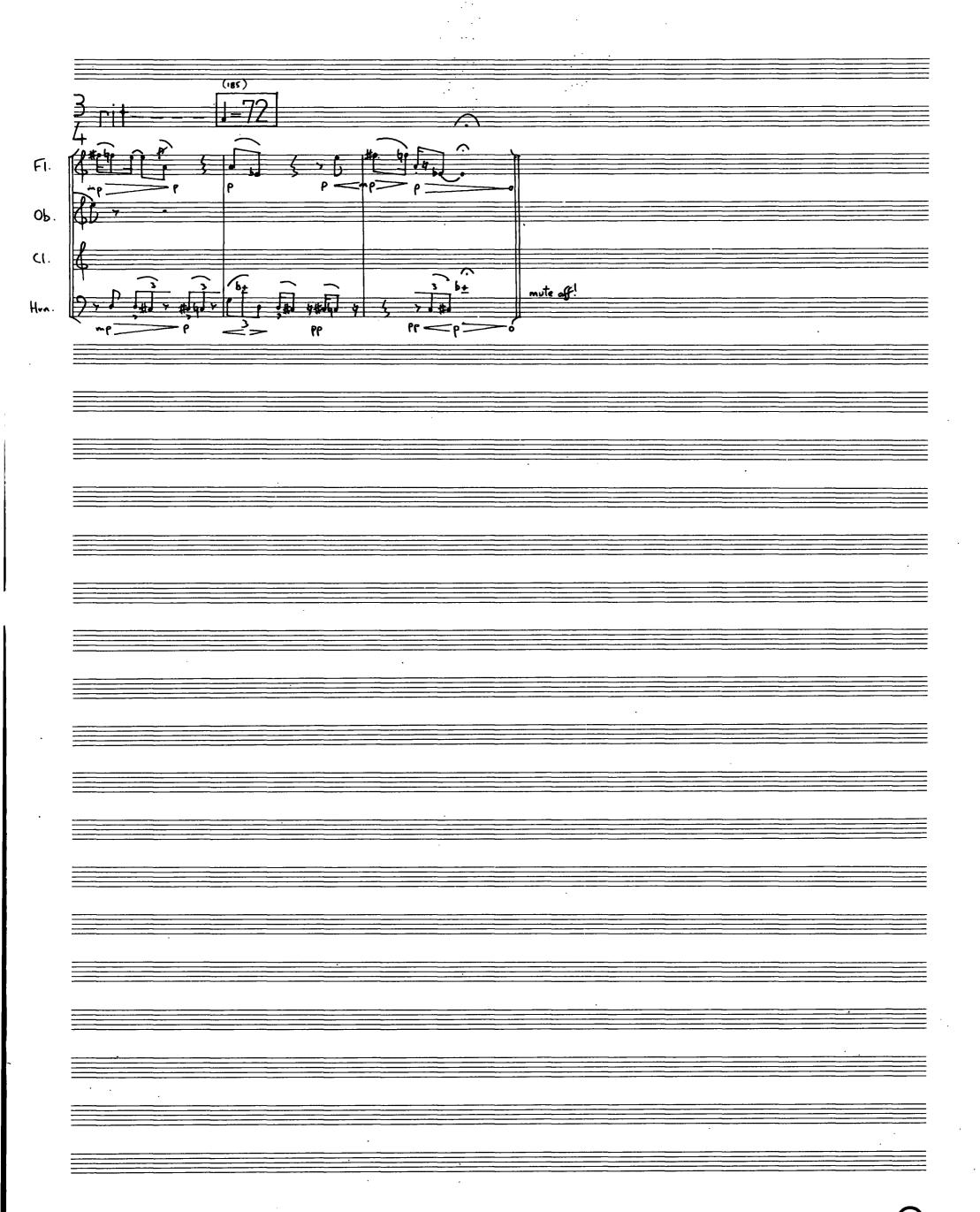






Strophe 2 FI. CI. CI. Tpt. #2 40 Tpt. dec. O \Diamond











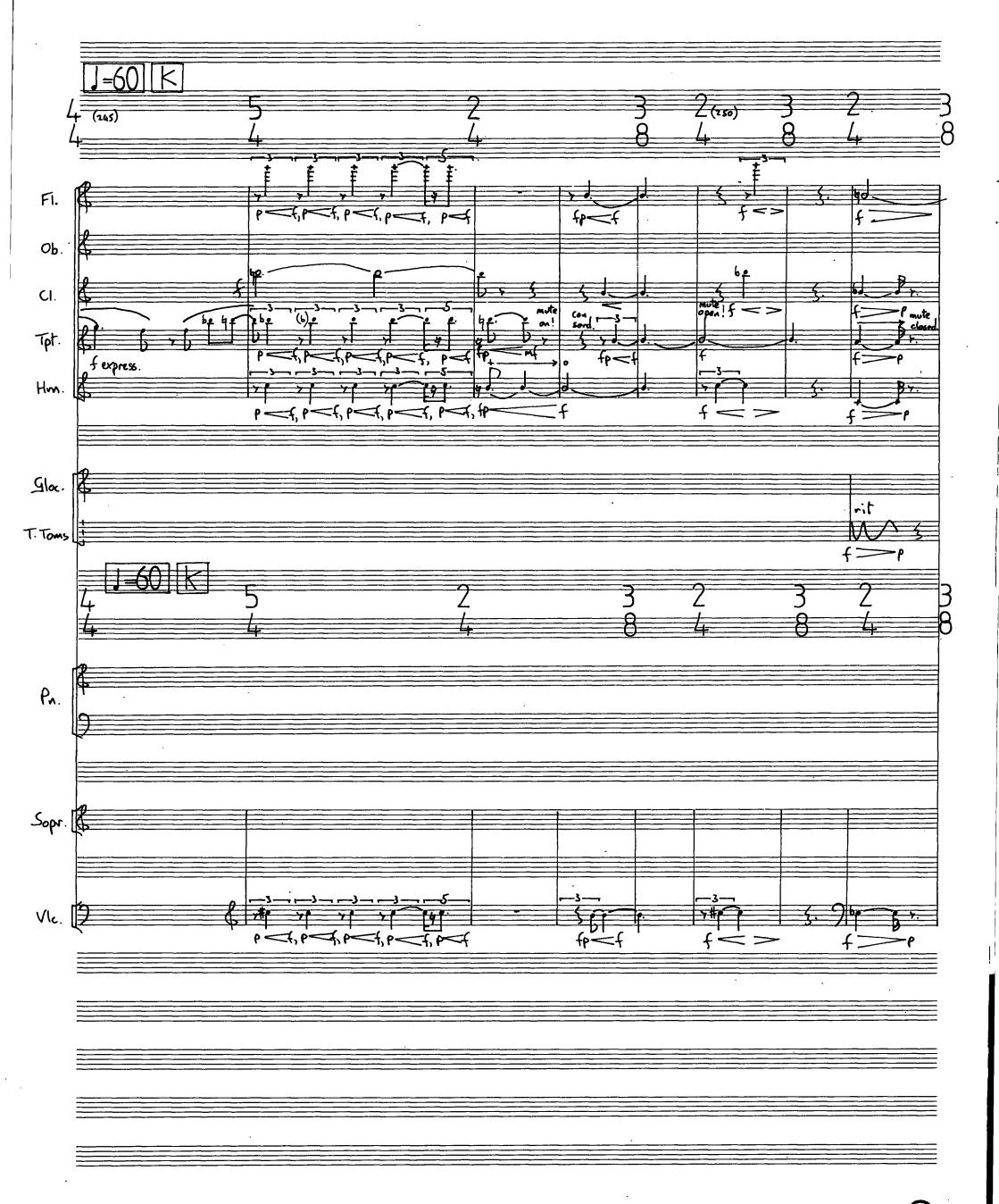






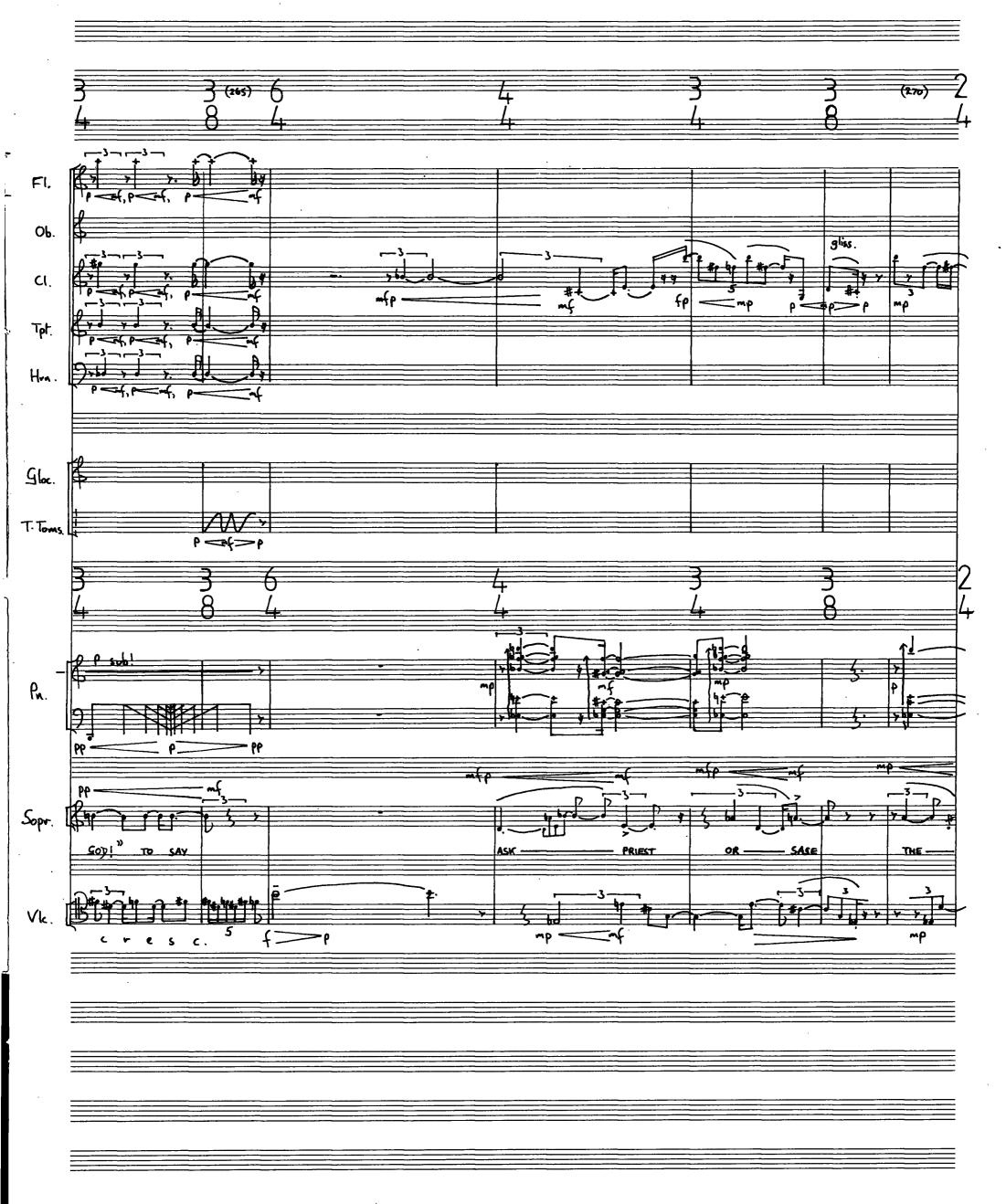






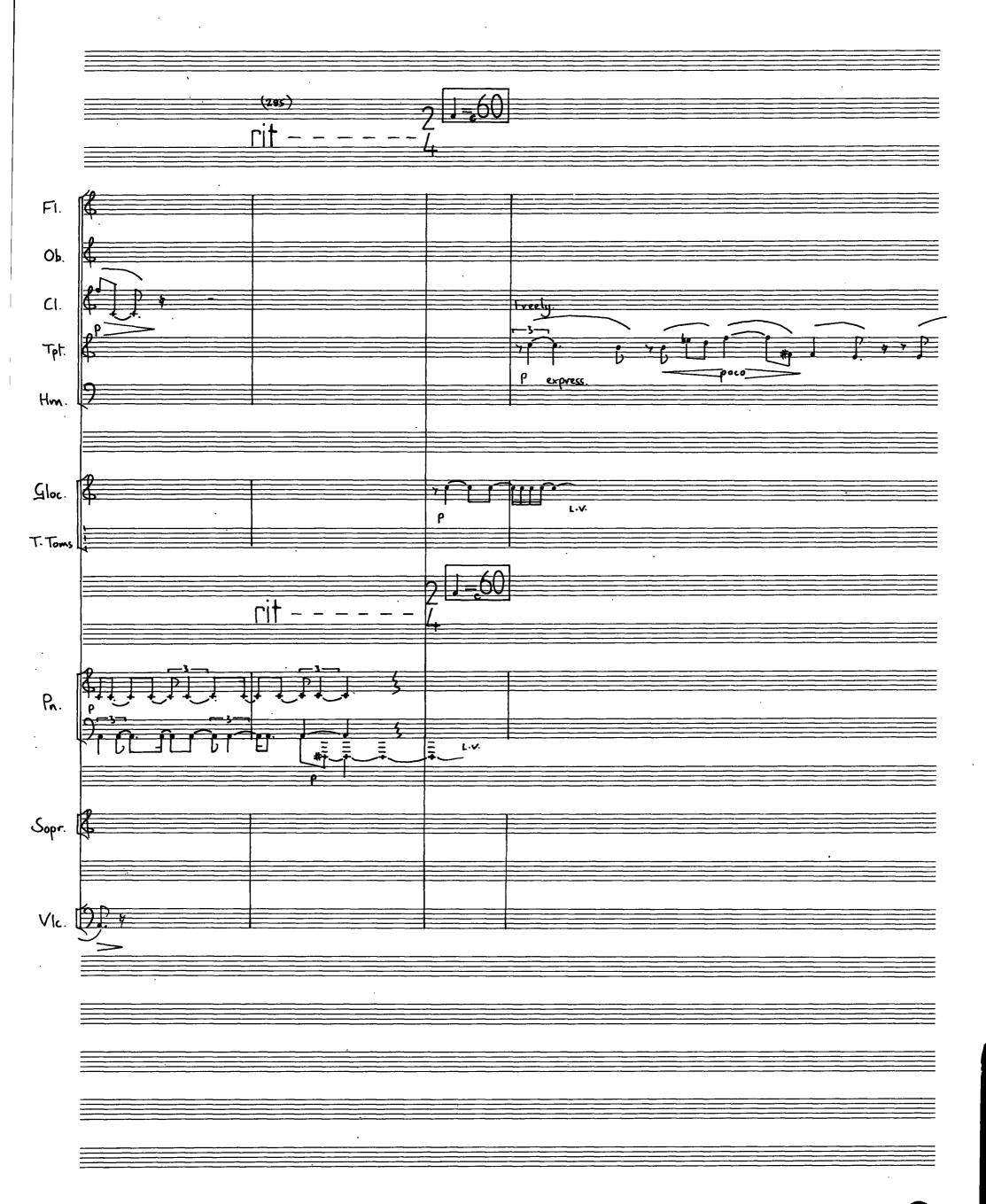




















The Descent into the Maelström.

by

David Morris.

<u>after a tale by Poe.</u>

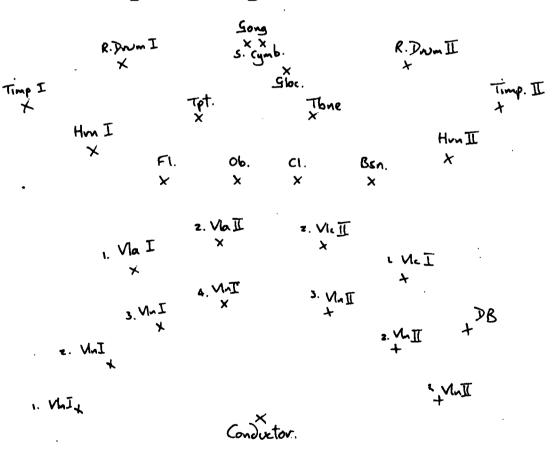
Instrumentation

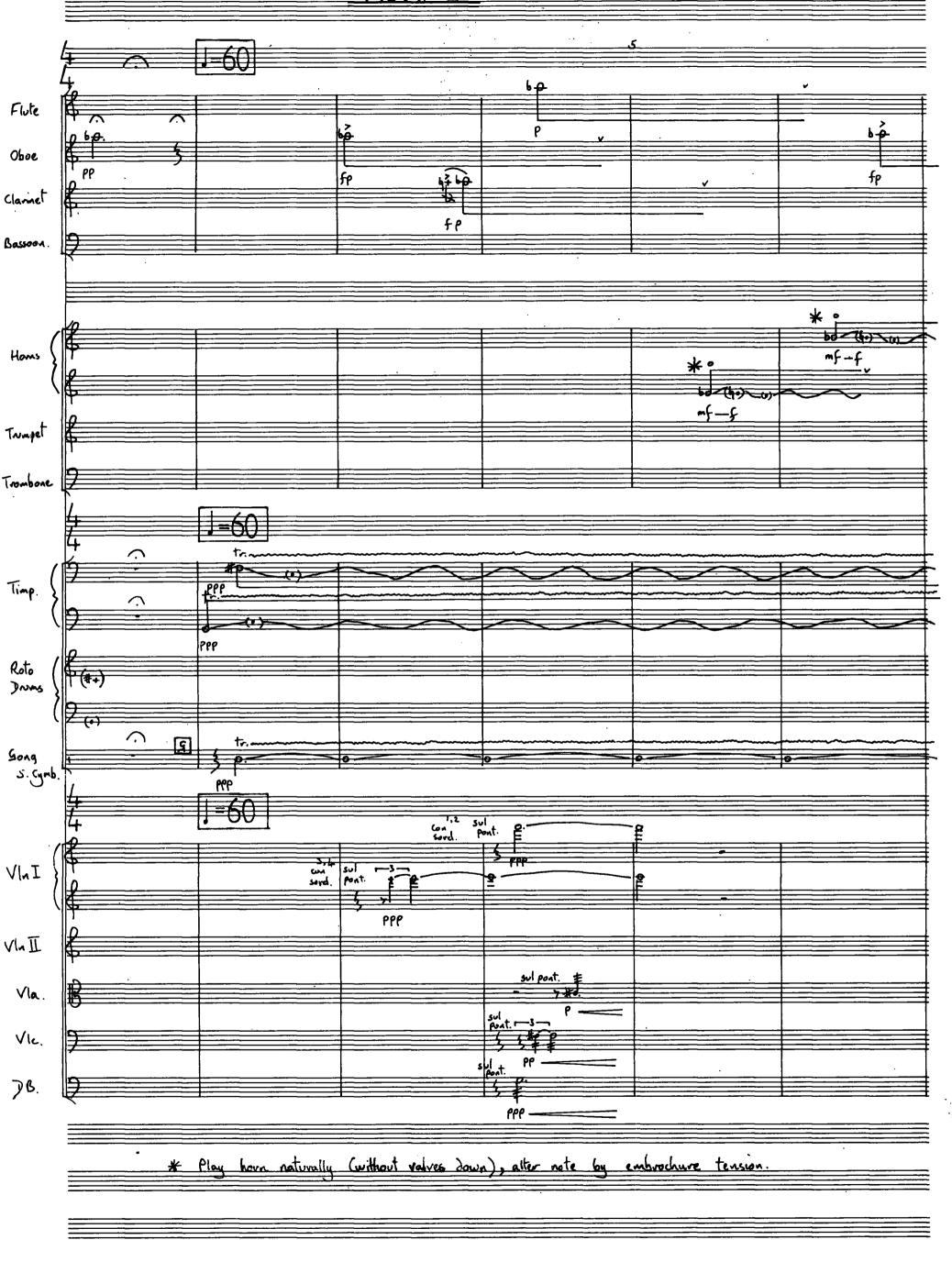
Flute	2 Timpani (Pedal)	2 *•	4	Violin I
Oboe			3	Violin II
Clarinet in Bb	2 Roto-drums		2	Viola
Bassoon		7	2	Cello
	Suspended Cymbol		1	Pouble Bass
2 Homs in F	Gong			
Trumpet in C	Glockenspiel			
Trombone	•			-

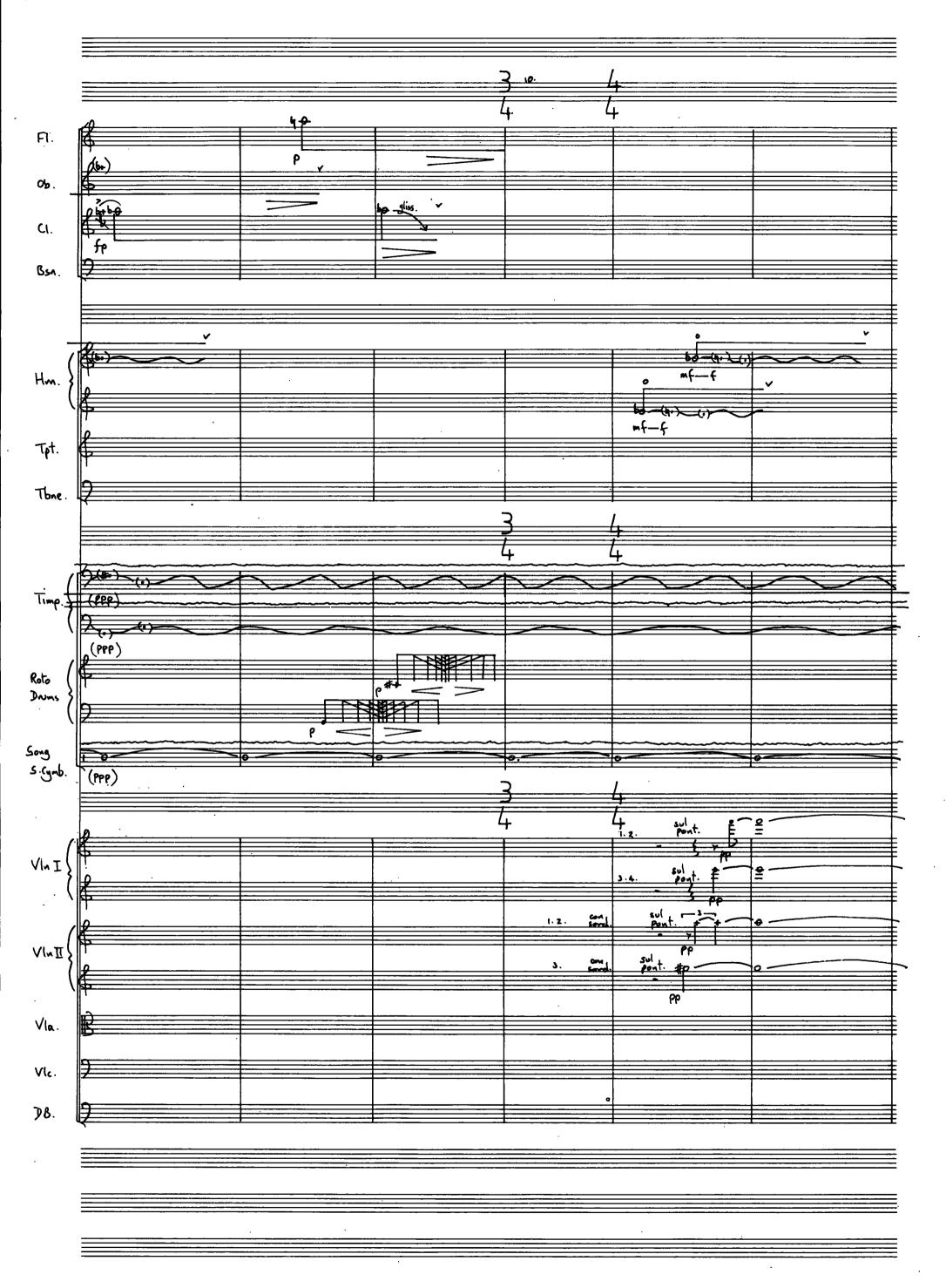
All instruments except PB & Gloc. sound as written.

Accidentals apply only to the notes they precede unless immediately repeated.

<u>Seating Arrangement.</u>









त्राक्ष कृतिकृति । स्वर्थानक्ष

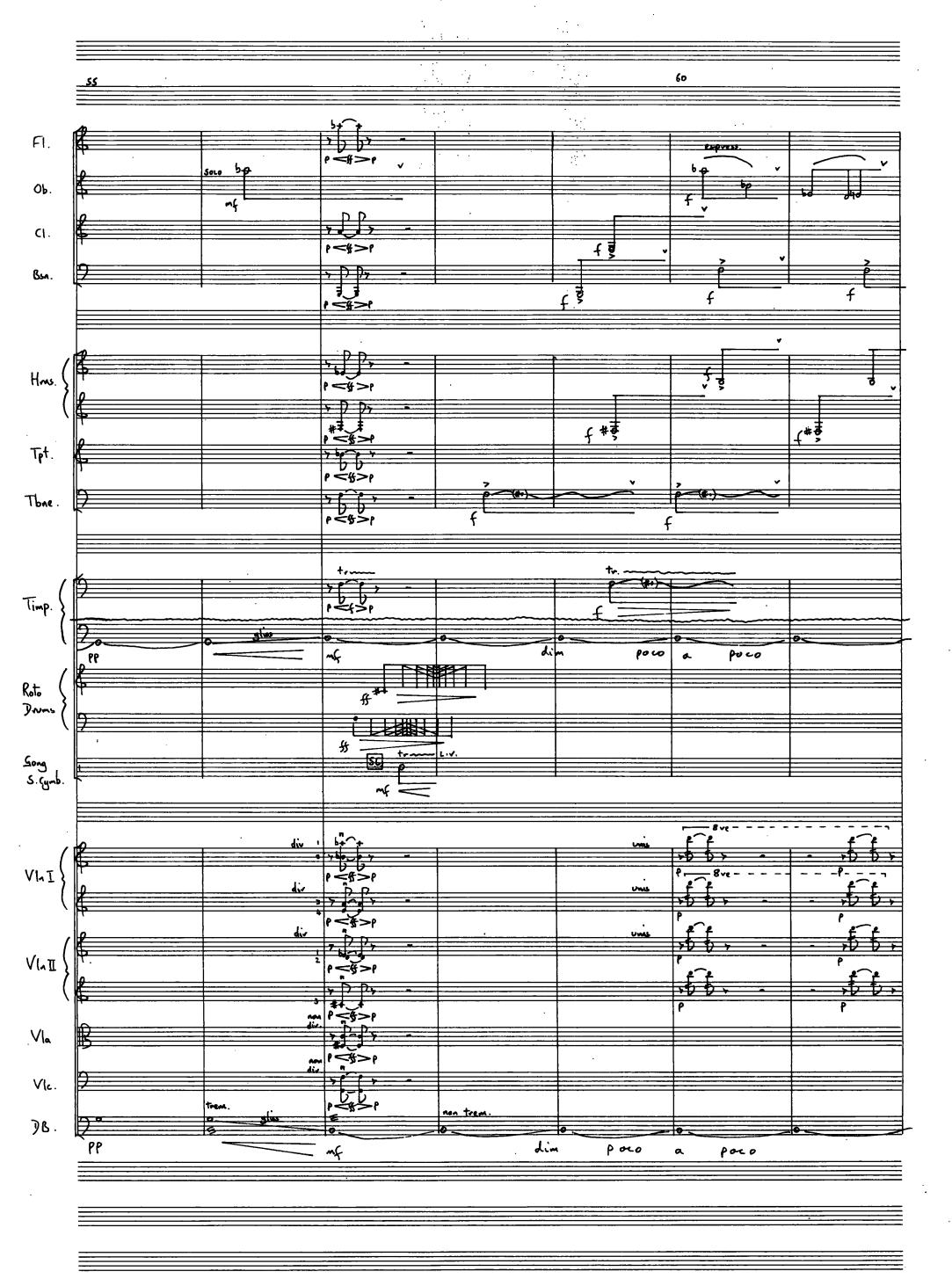


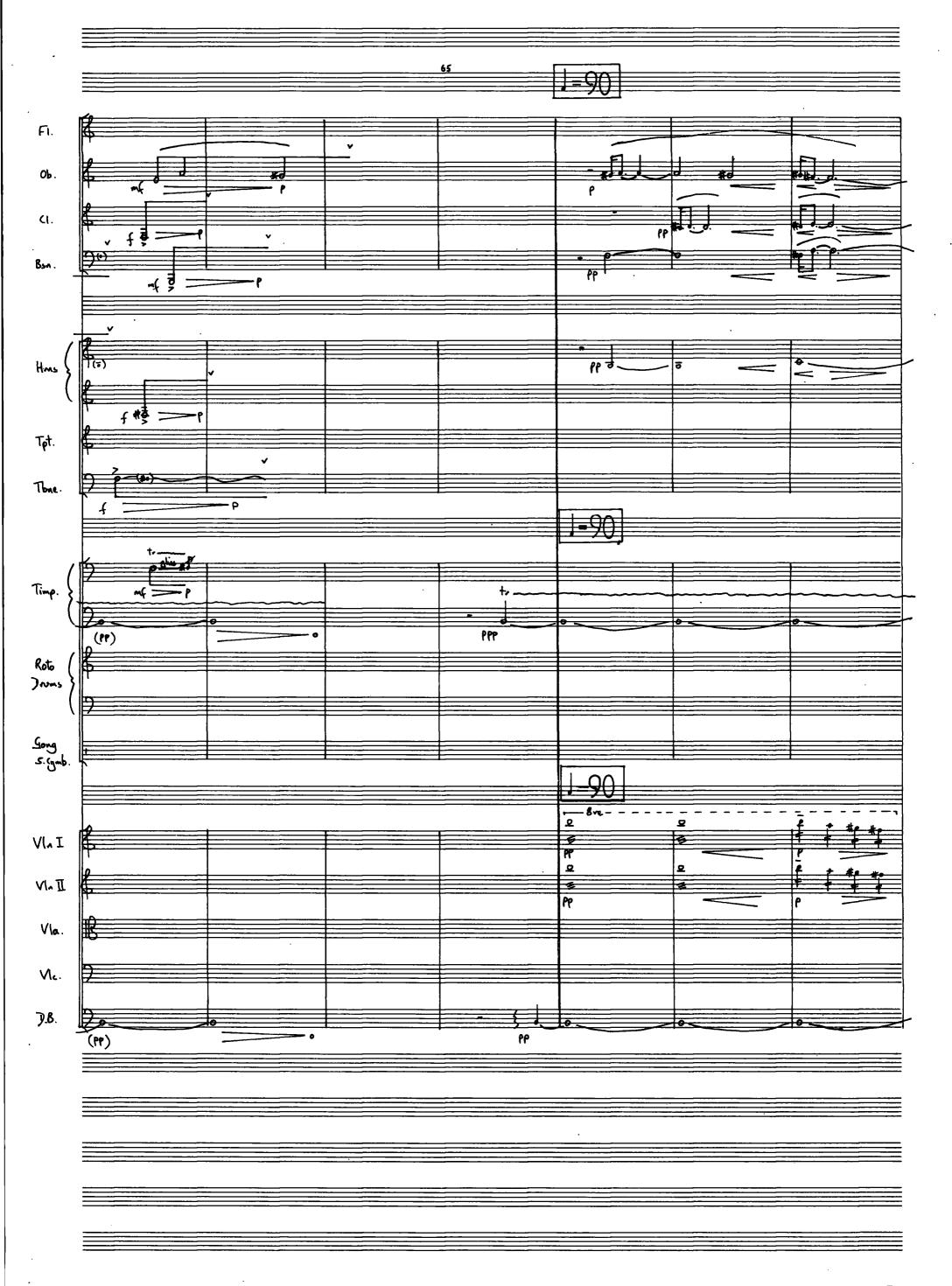




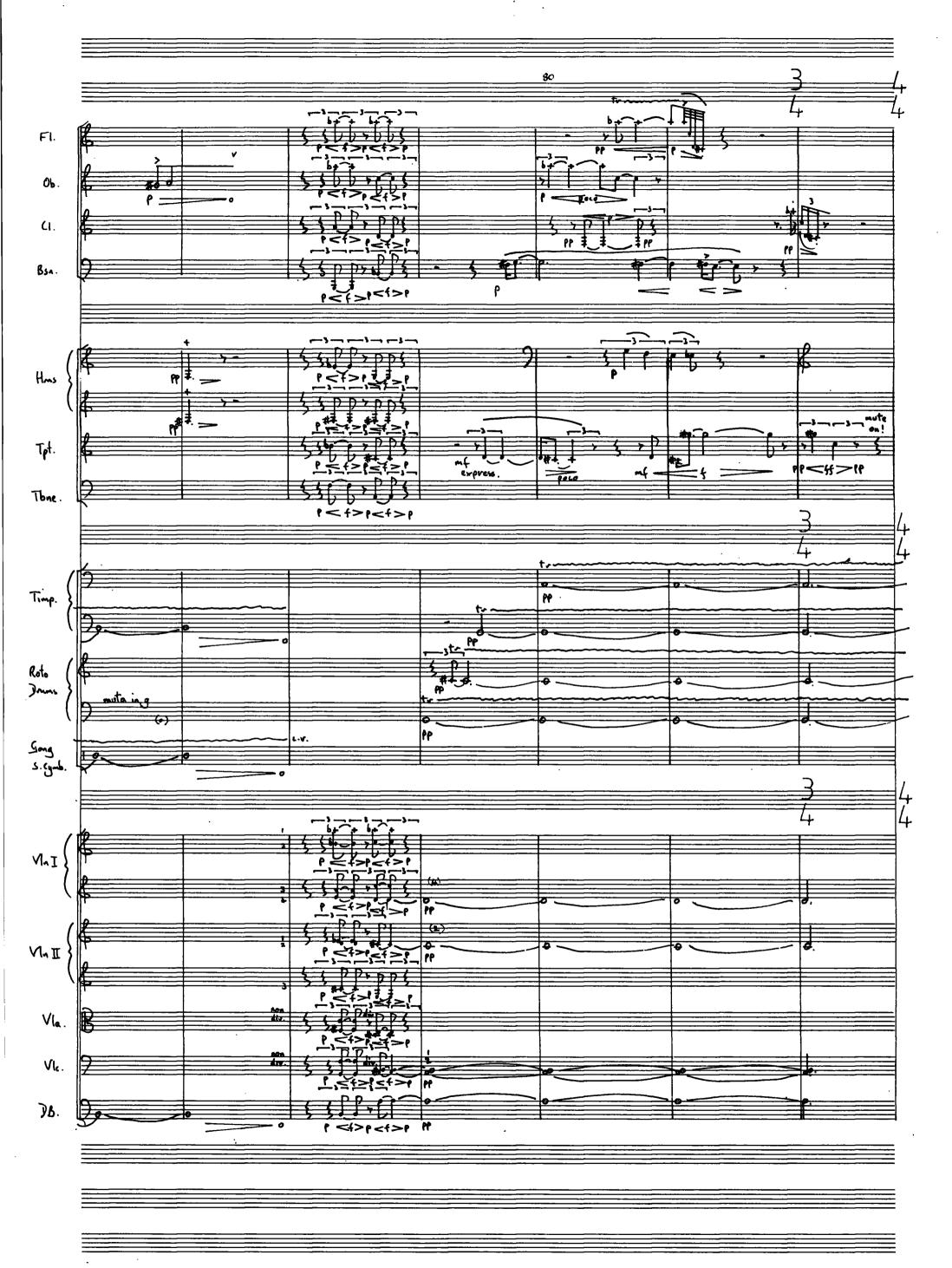


















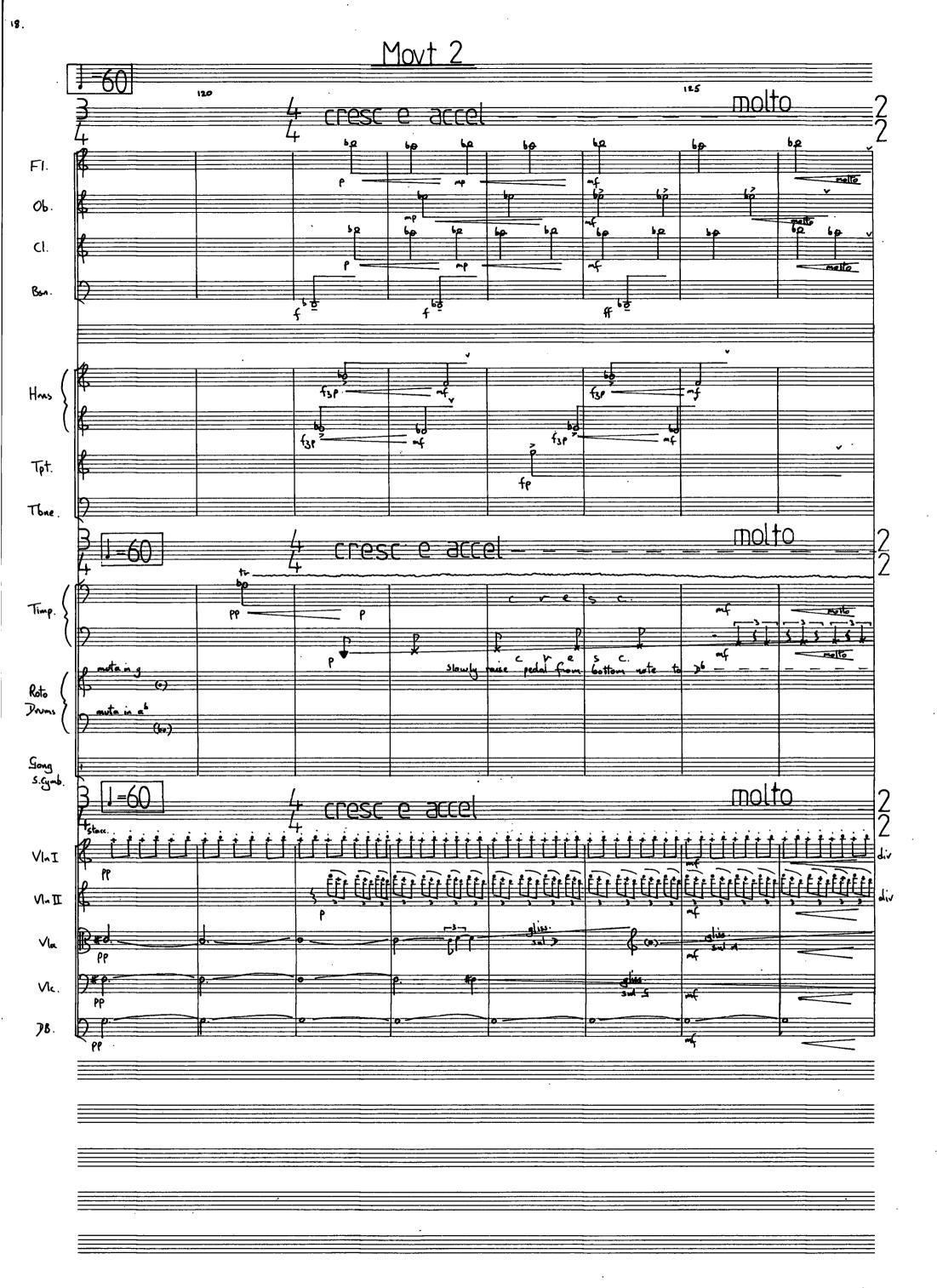


11 11 11

11.5





















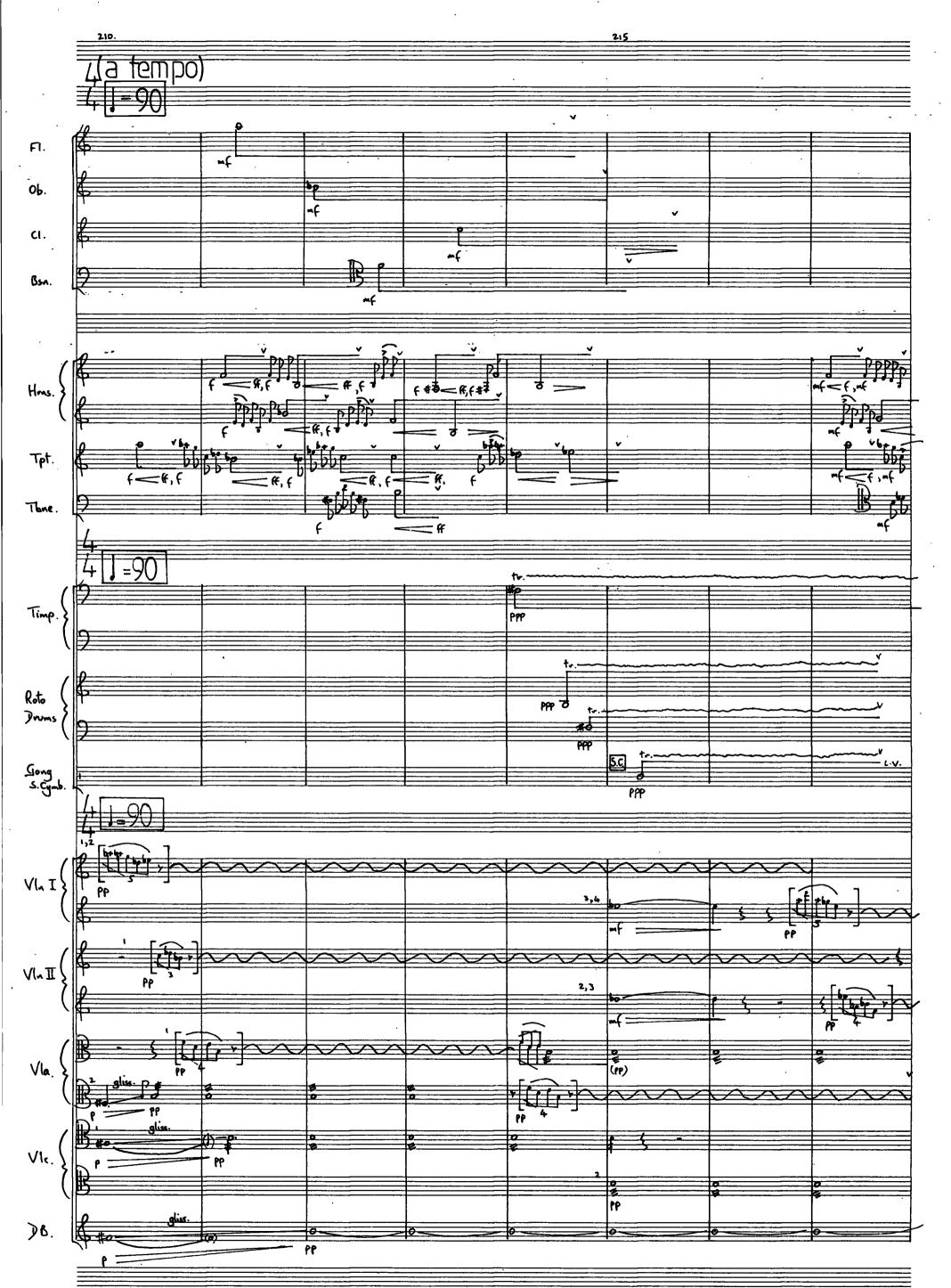












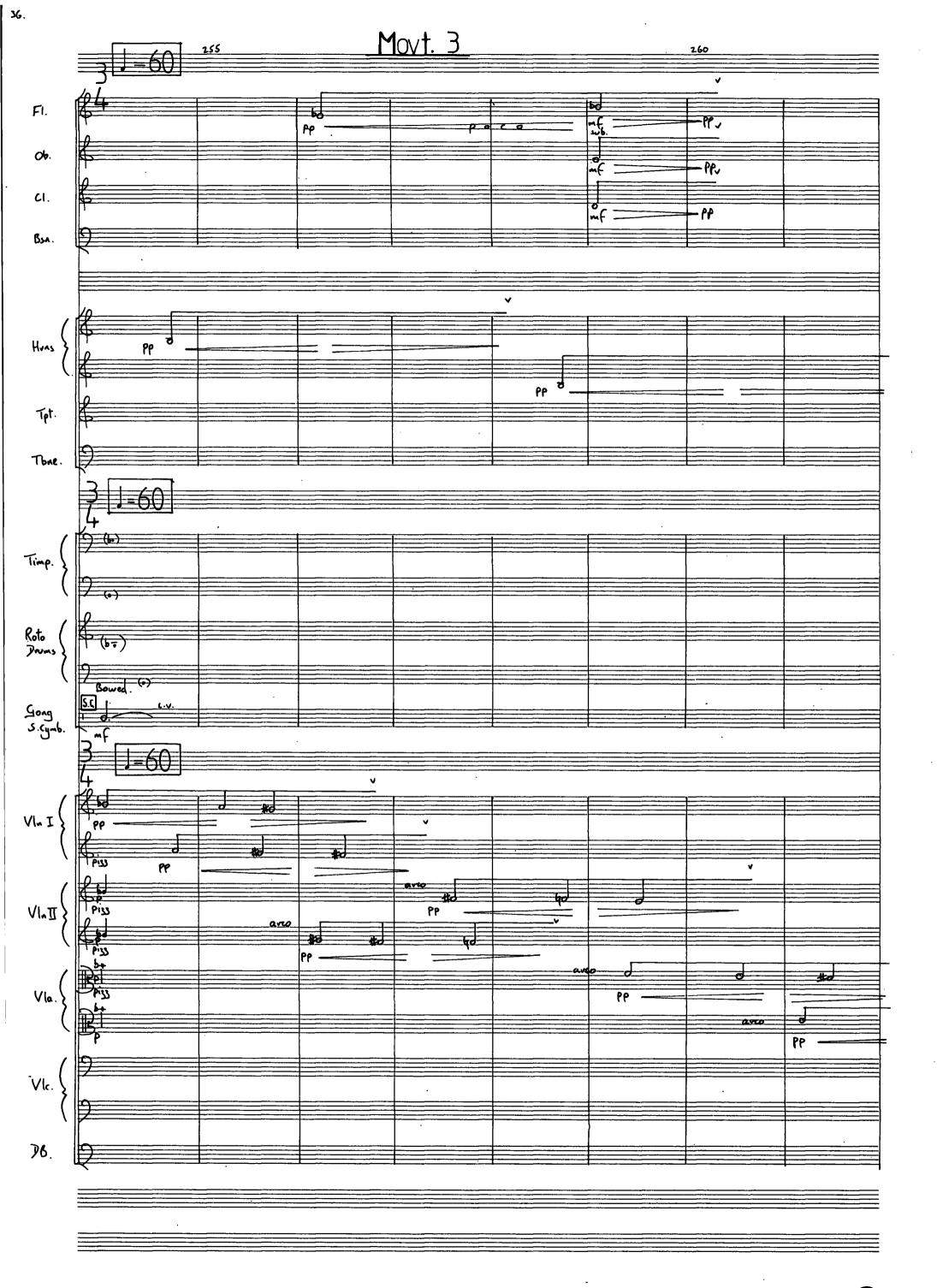


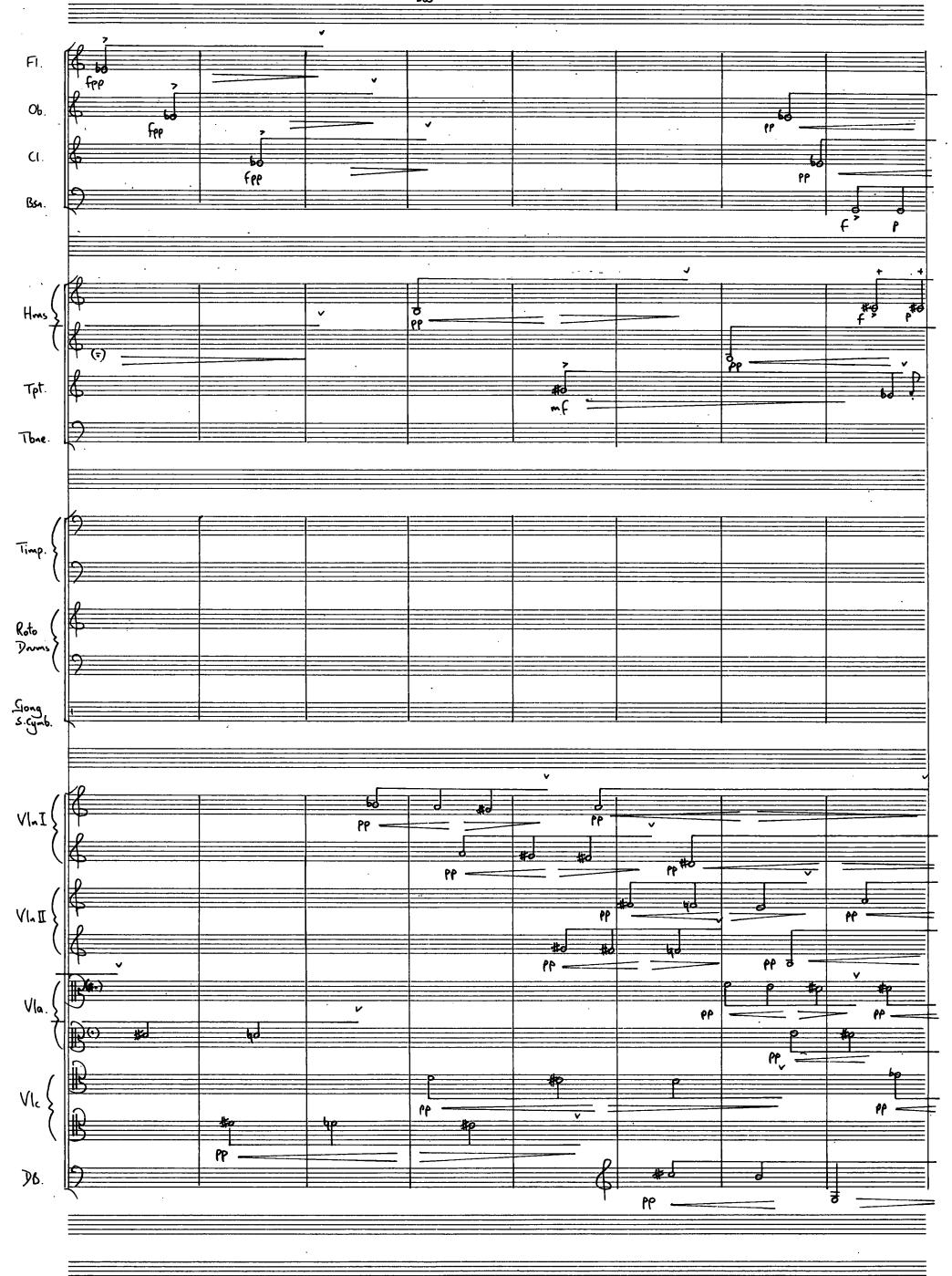






)6.







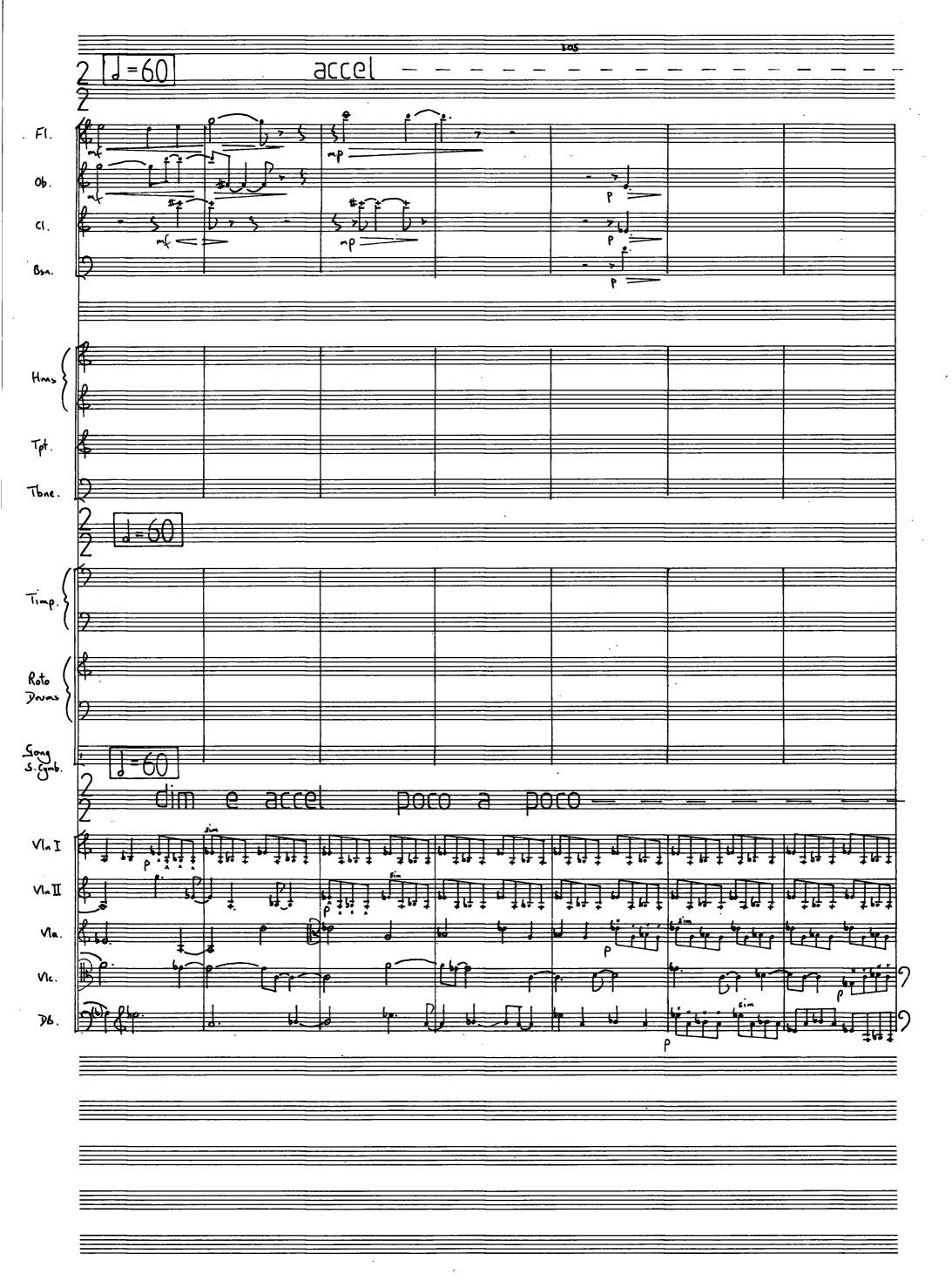






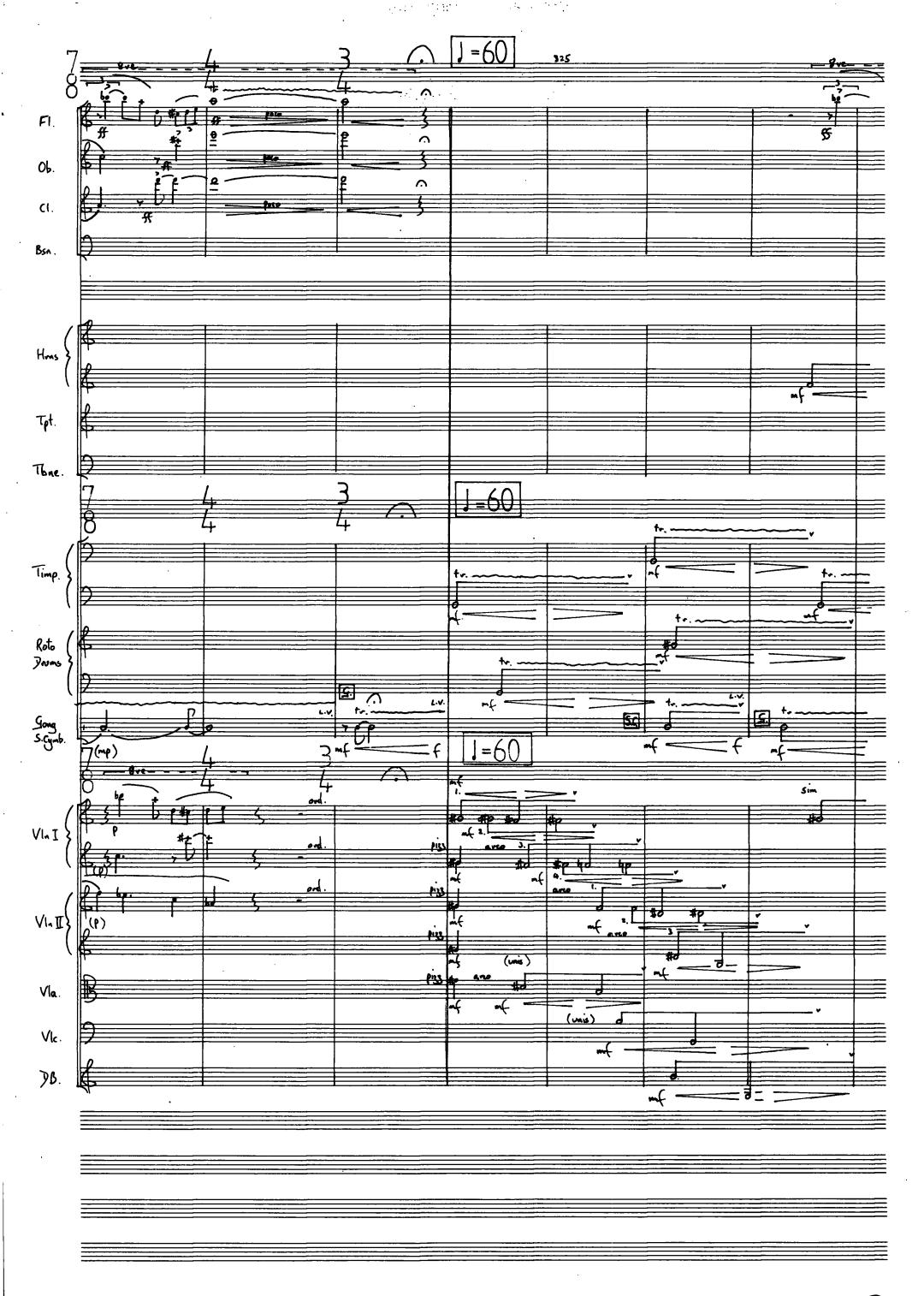
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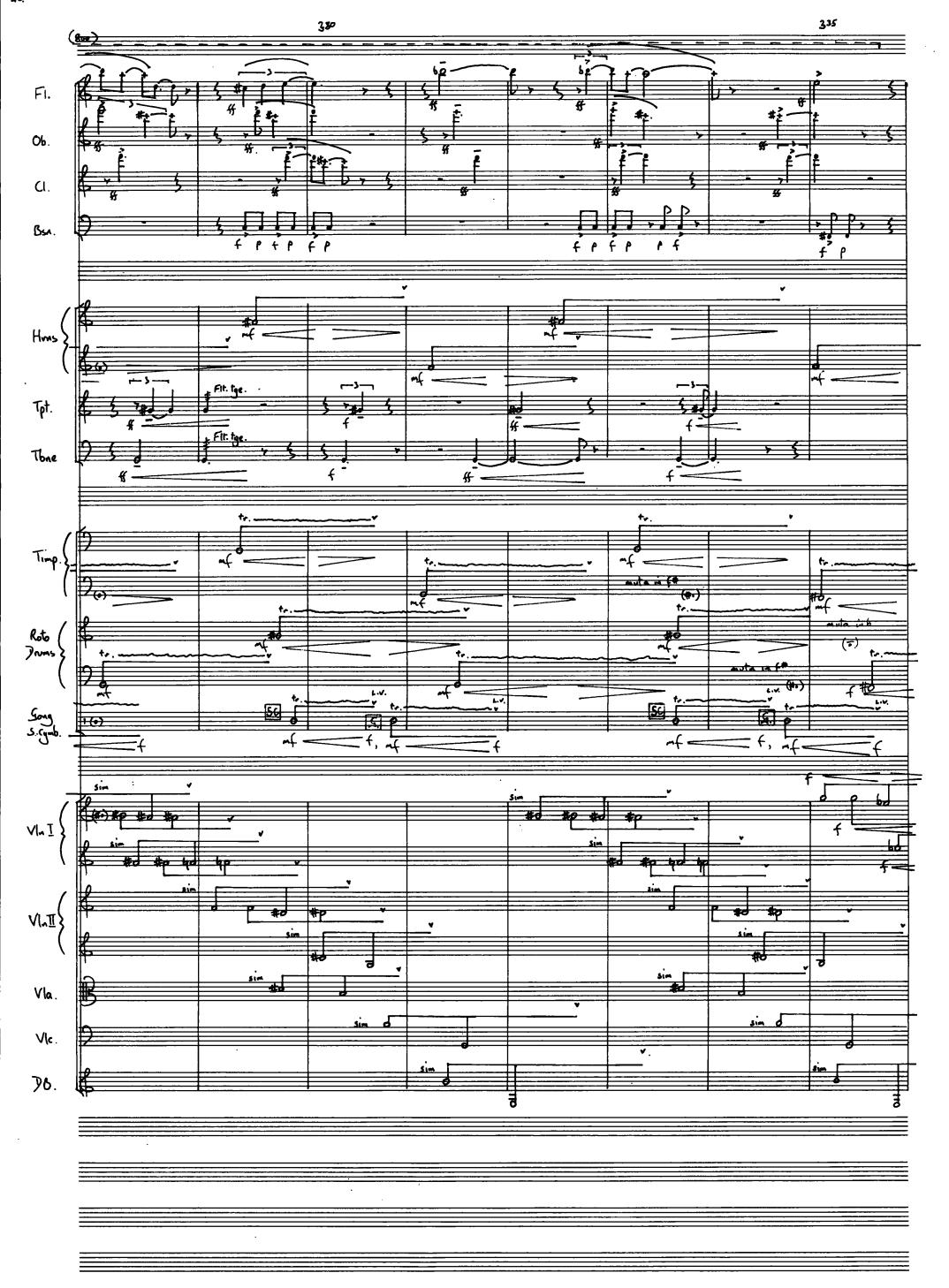












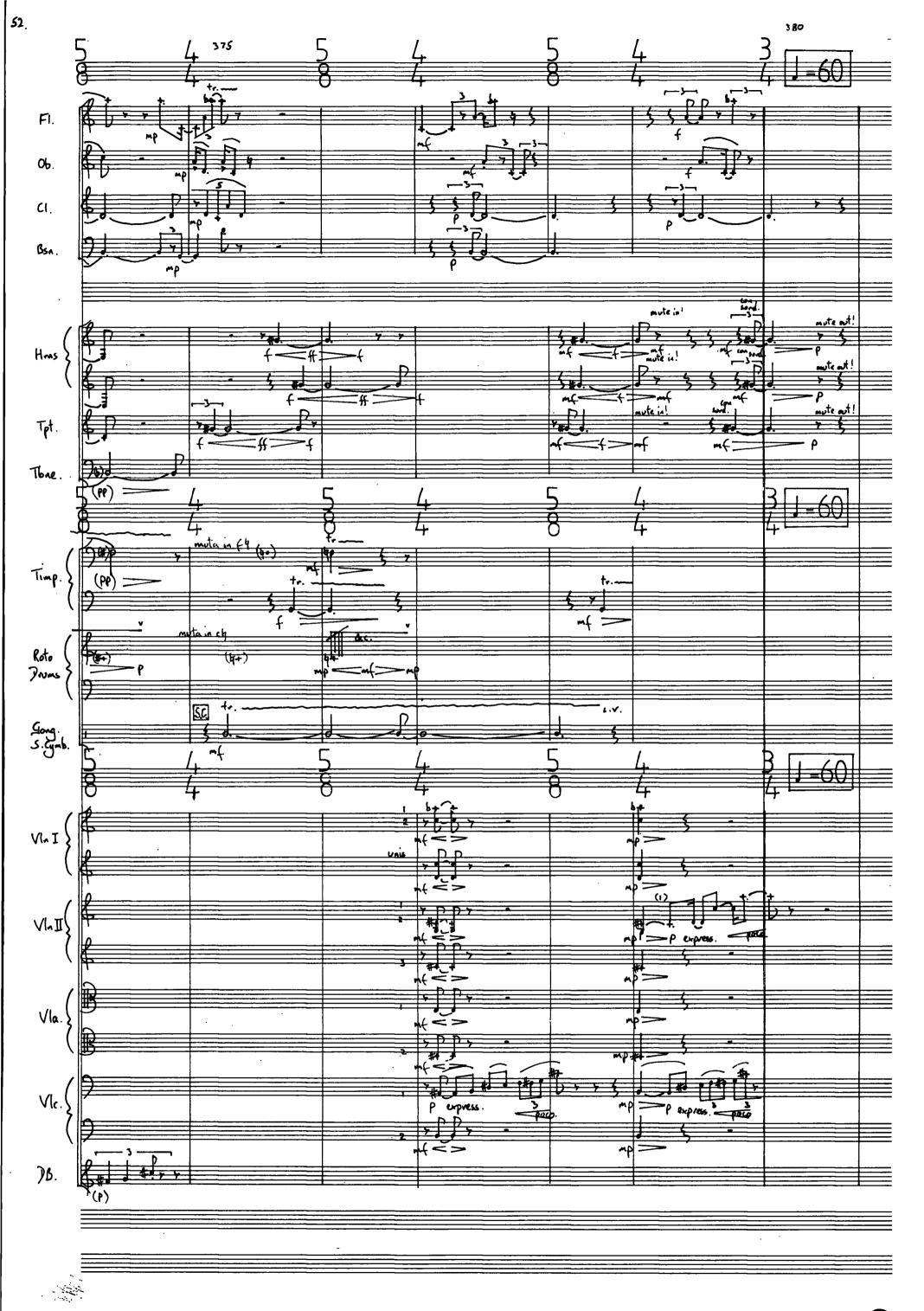


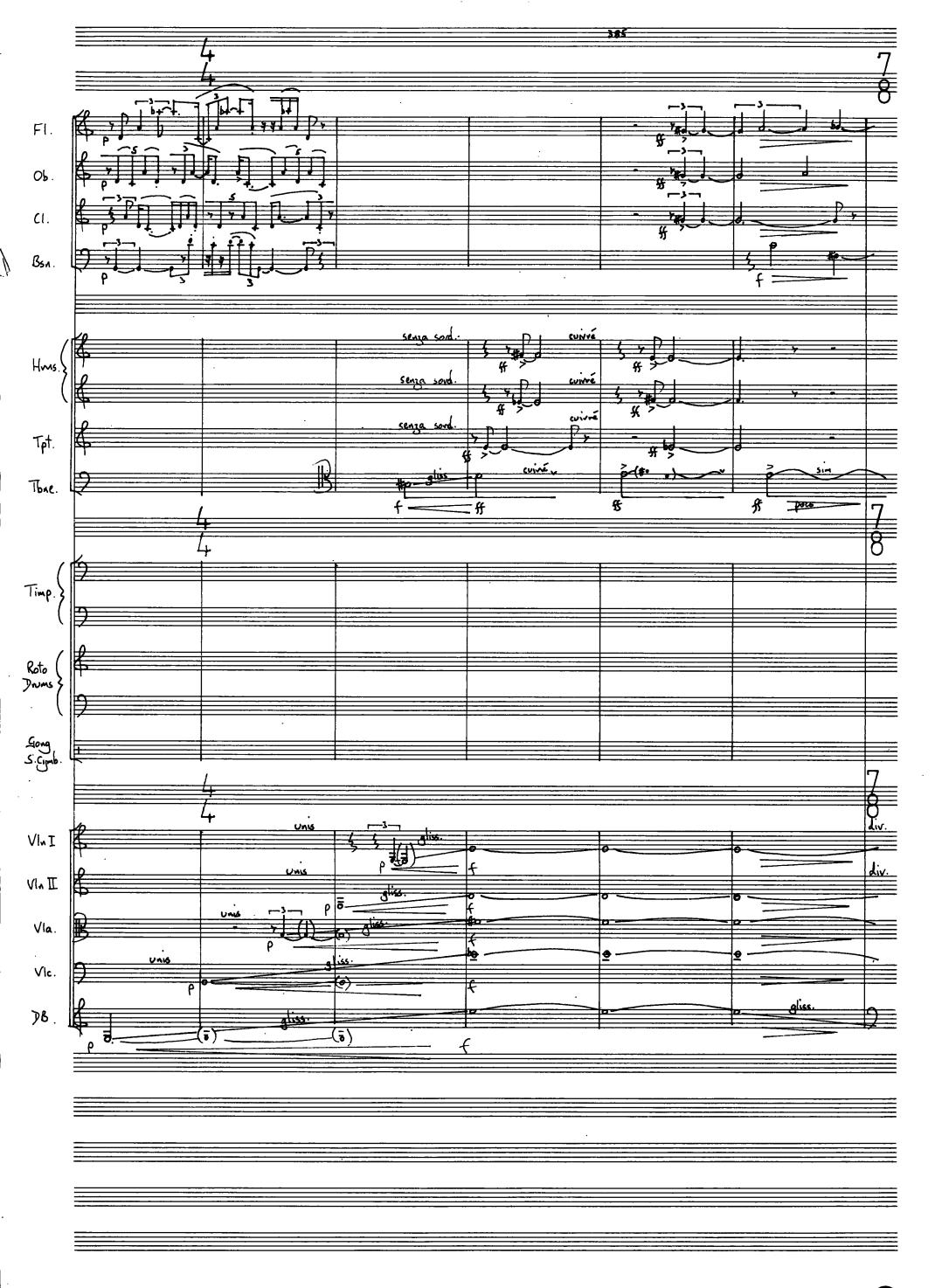




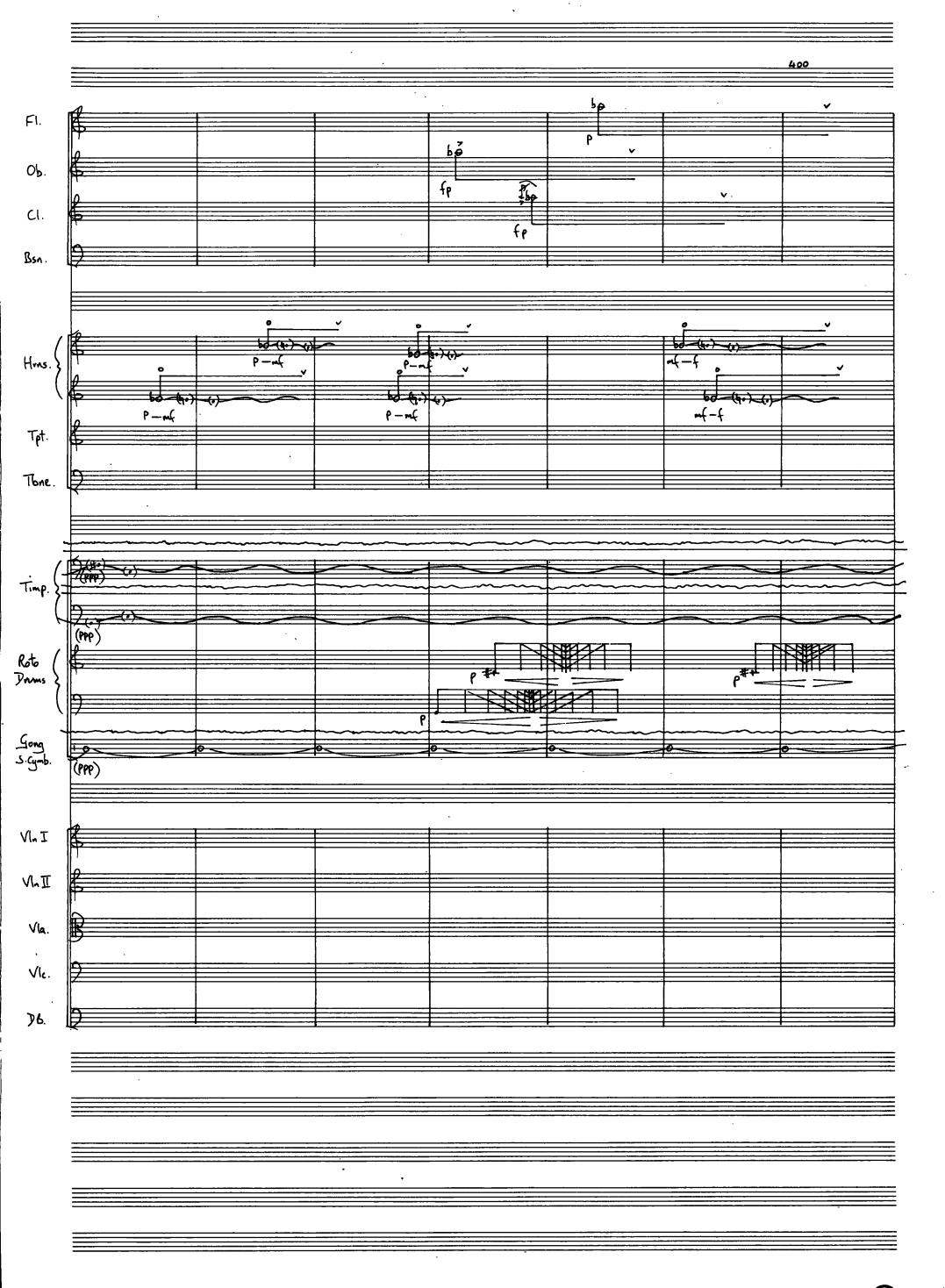






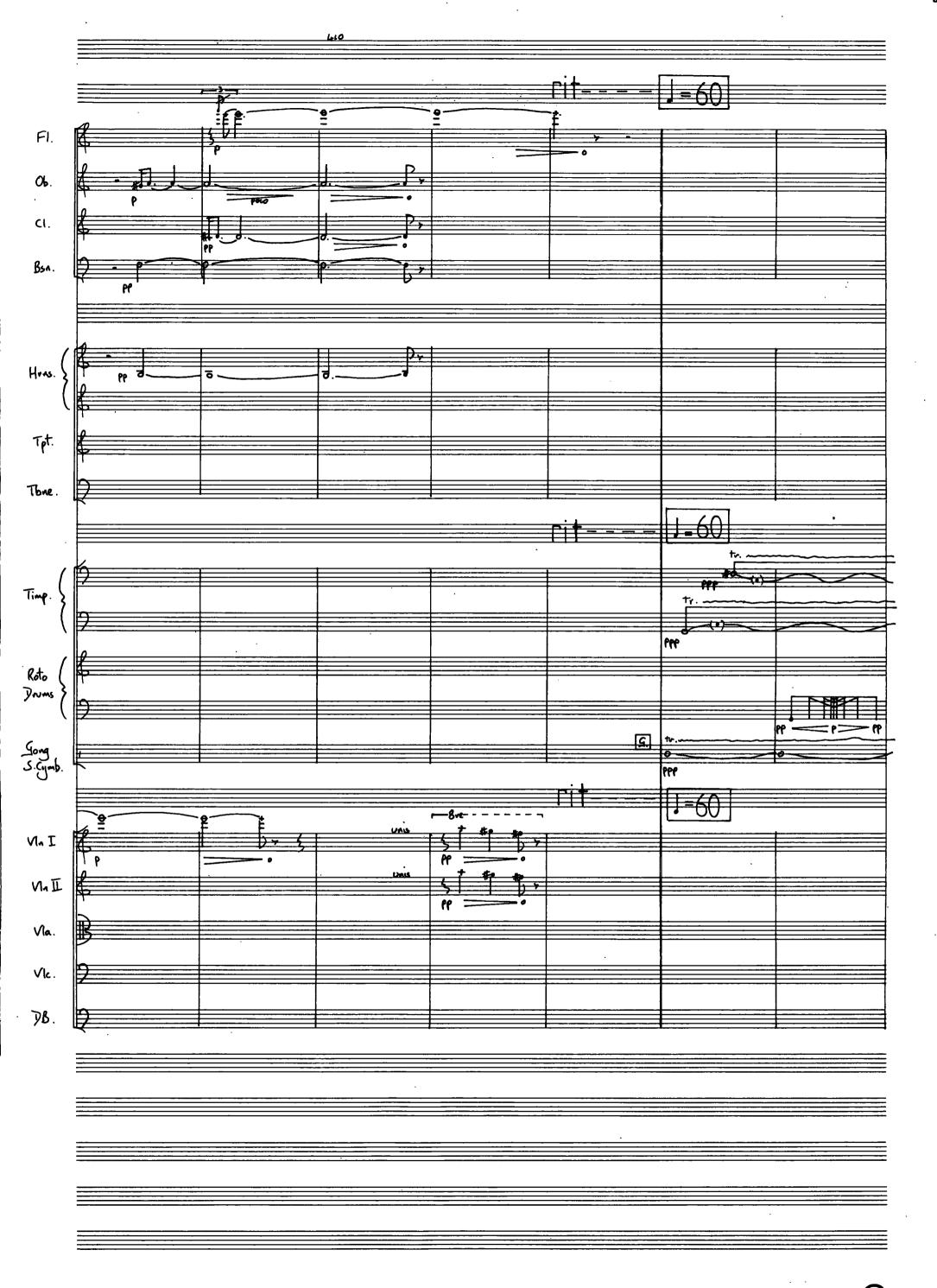


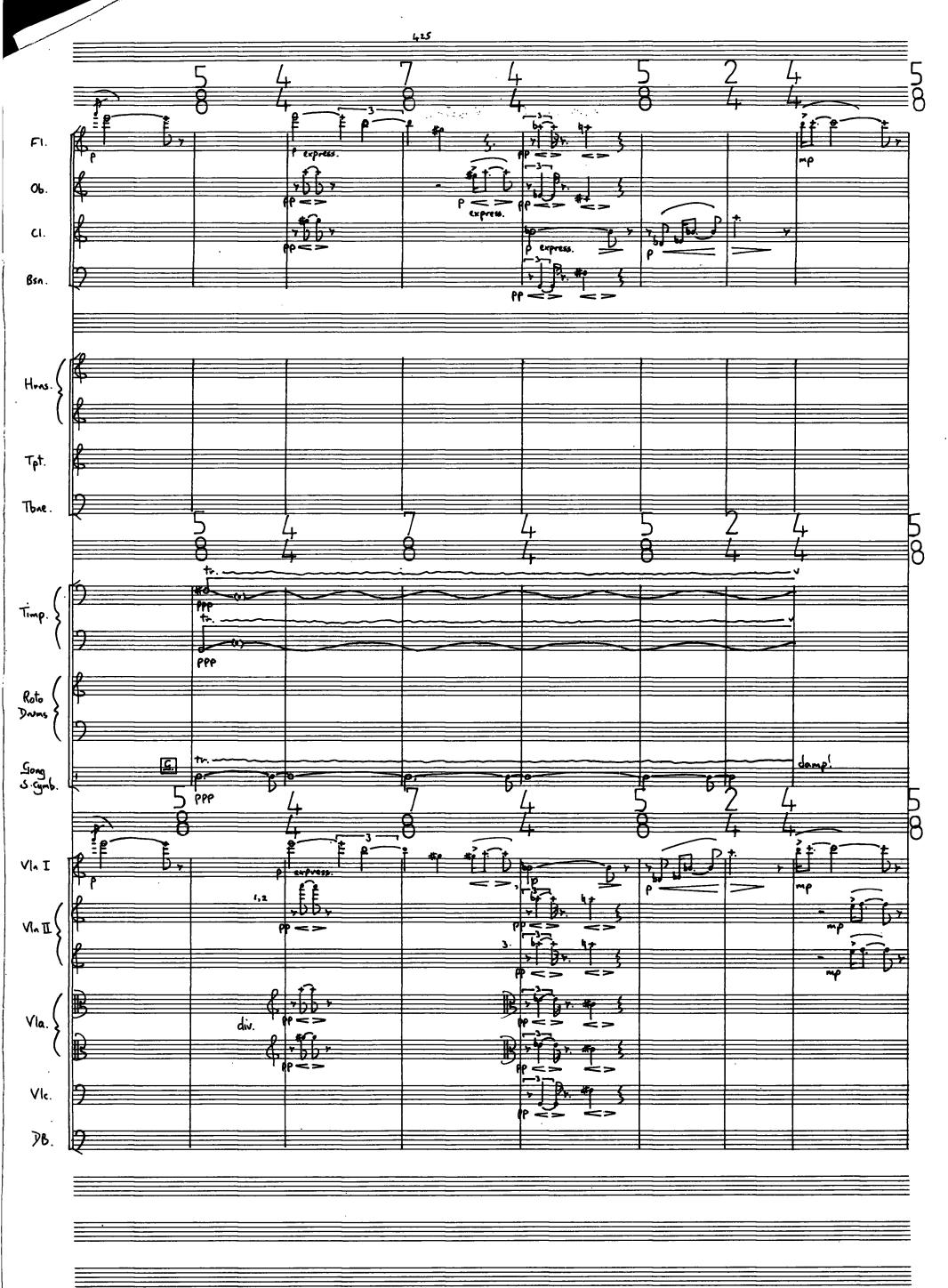


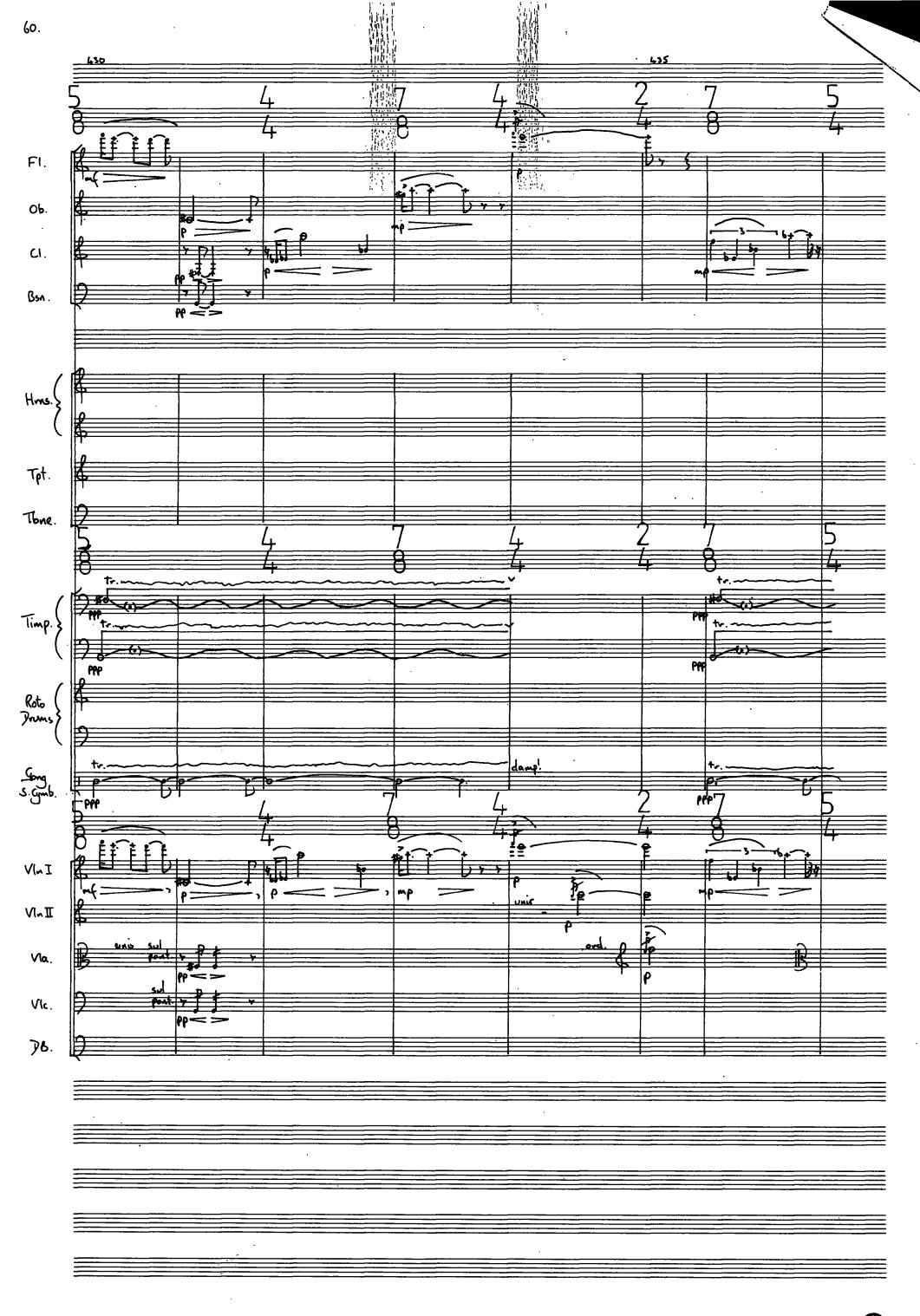


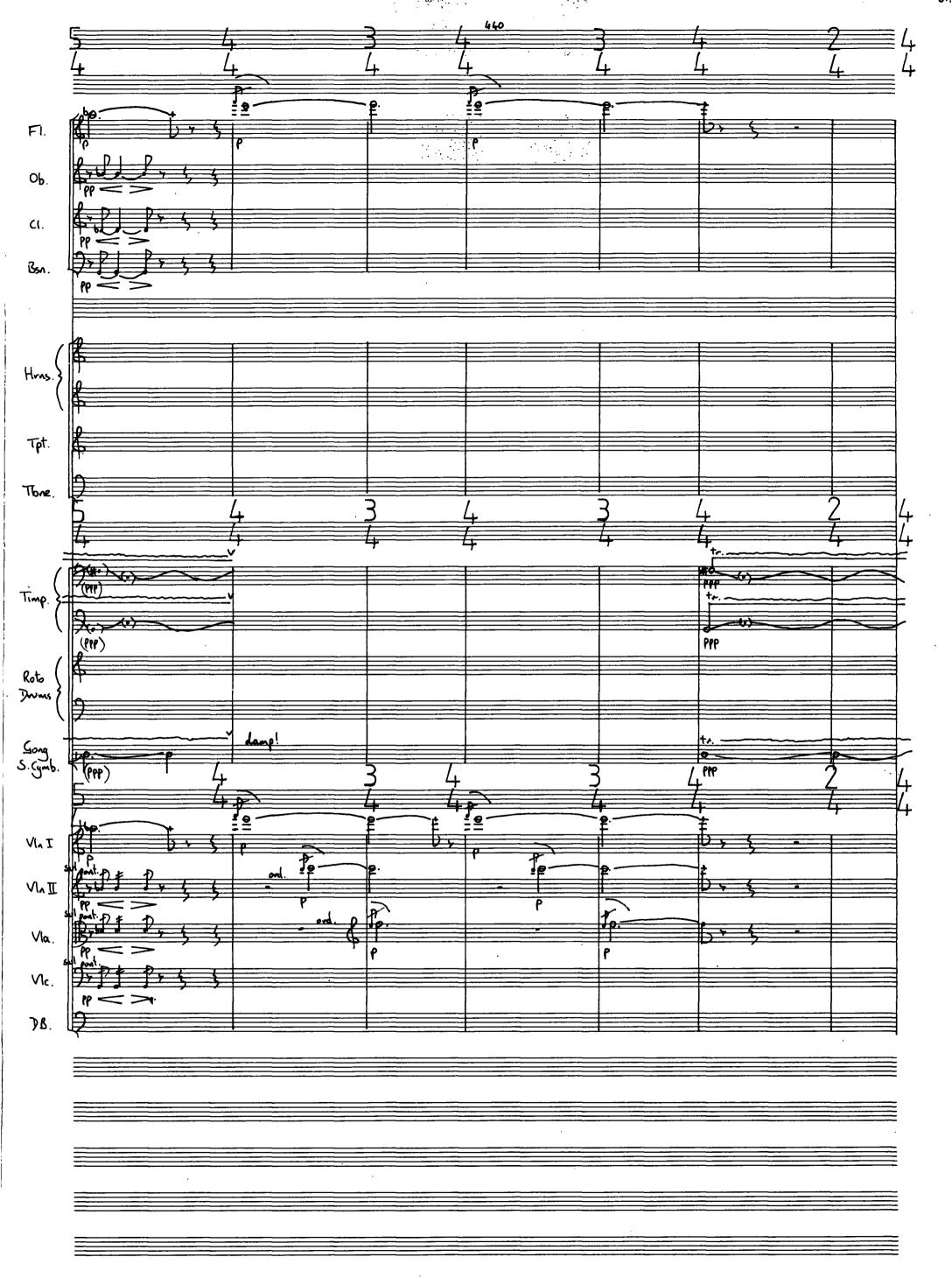


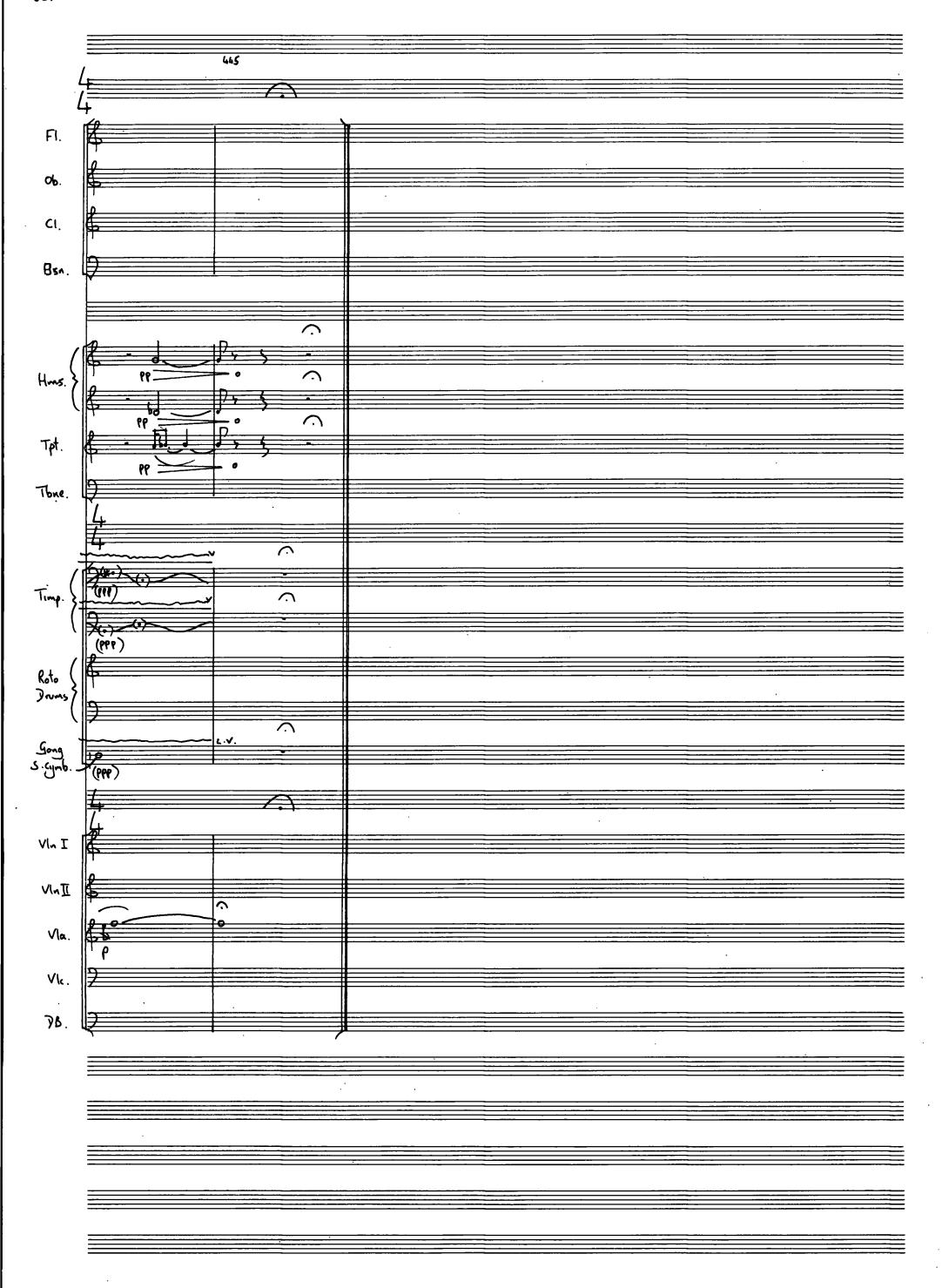












Reed Music 1.

<u>by</u>

David Morris

<u>Instrumentation.</u>

5 OBOES
1 COR ANGLAIS
2 BASSOONS, 2 and doubling CONTRA.

ALL INSTRUMENTS (incl. contra) WRITTEN AT PITCH.

BRACKETS, [], ARE TO BE REPEATED A SPECIFIED NUMBER OF TIMES,
OR AD LIB UNTIL COMPUCTOR'S SIGN.

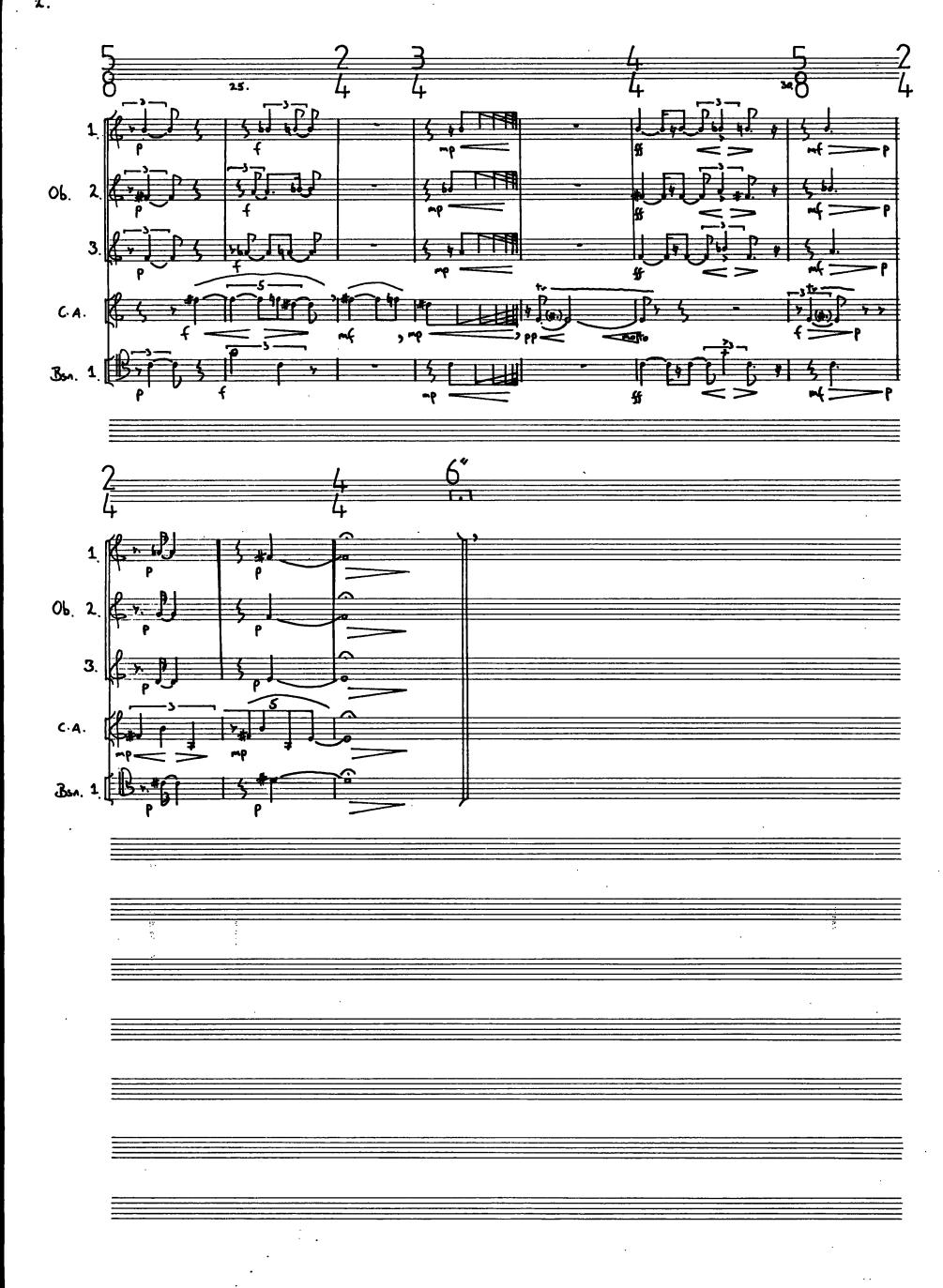
PAUSES. A DESIGNATES HOLDING NOTE UNTIL COMPUCTOR'S SIGN.

G.P. IS ROUGHLY A 2 BAR REST.

IS A PAUSE WITH APPROXIMATE DURATION IN SECONDS.

WRITTEN FOR THE BRITTEN-PEARS SCHOOL OF ADVANCED MUSICAL STUDIES, 1979.







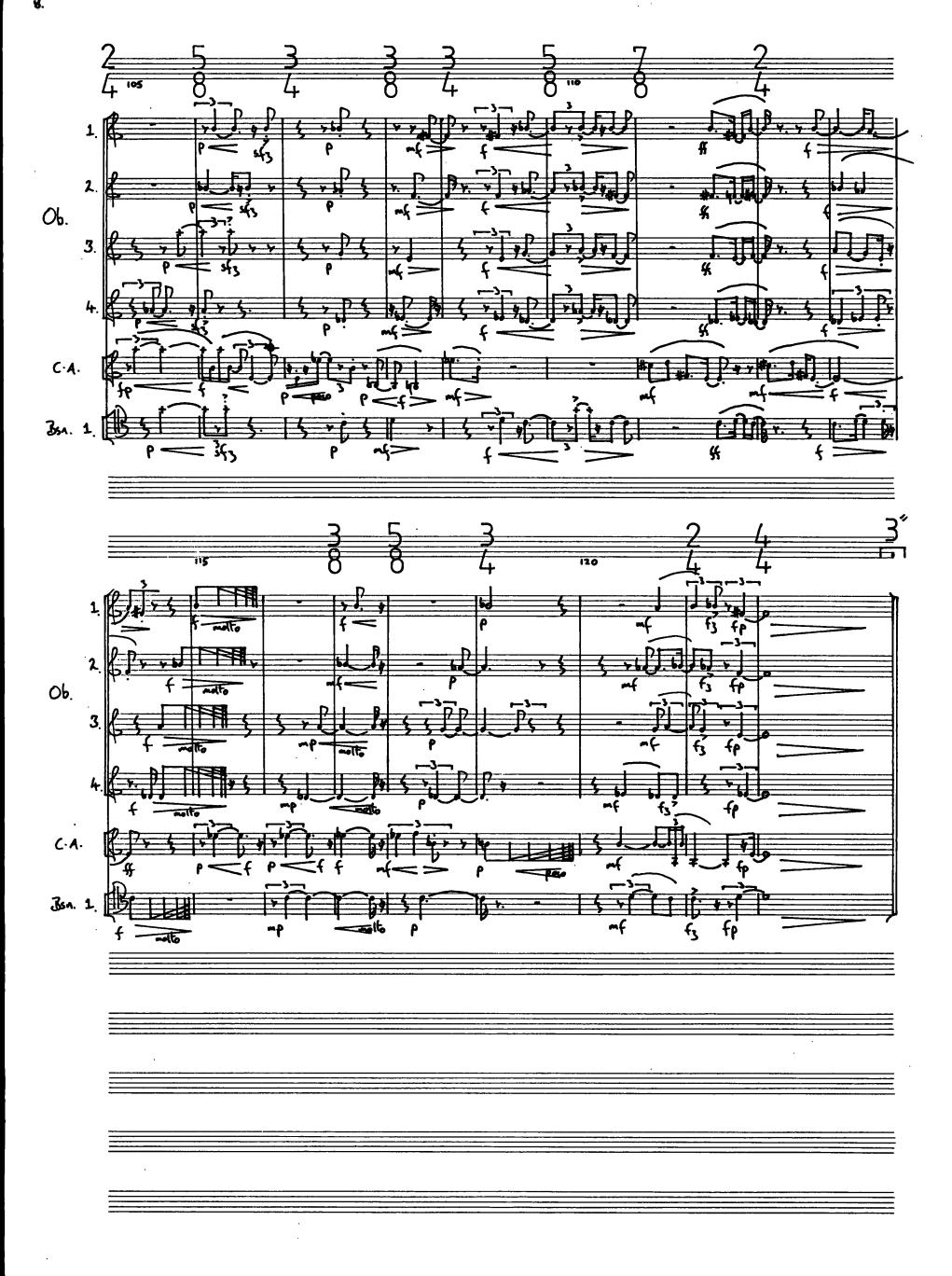


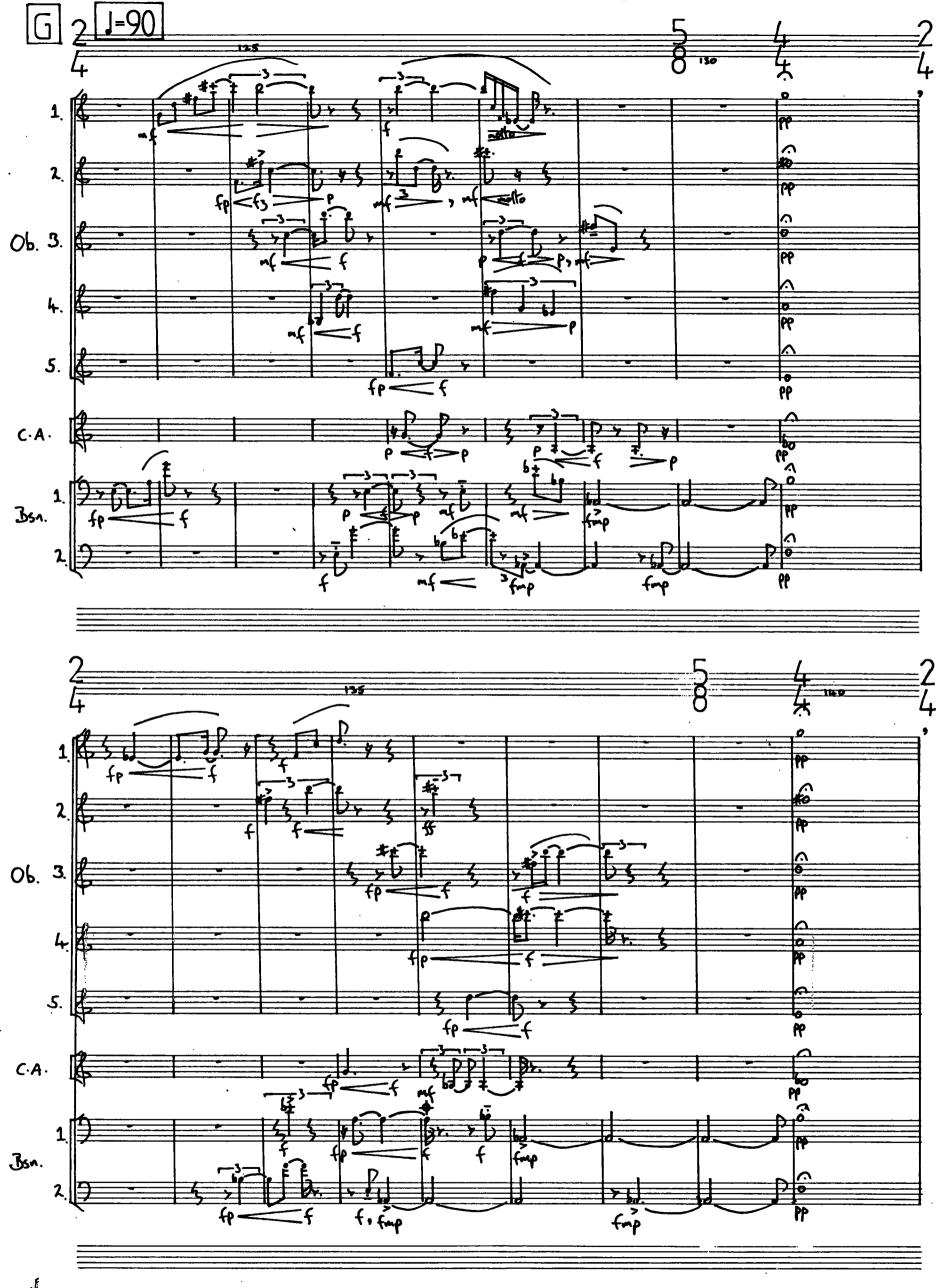


(a.H)

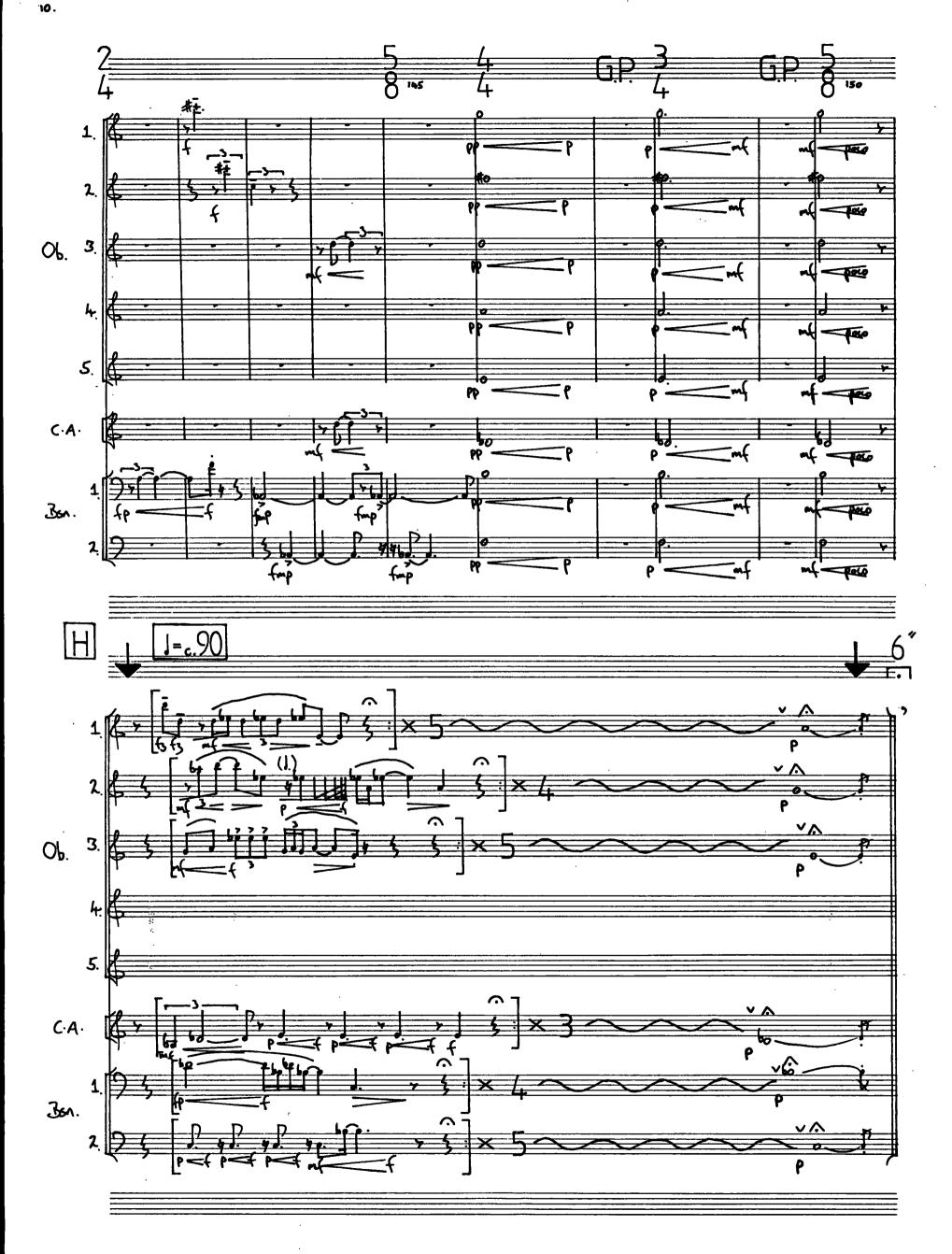


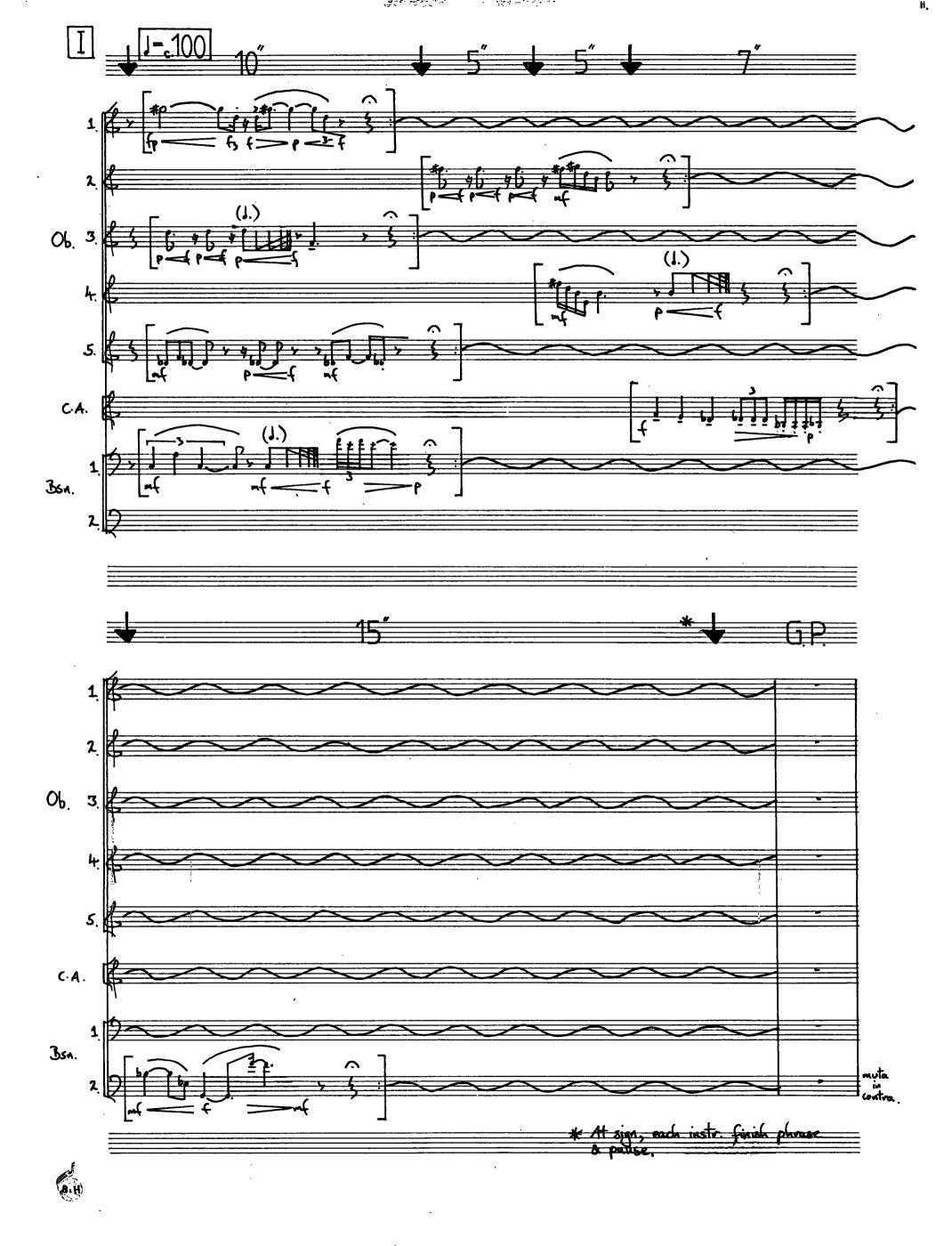






a.H









· 的特別的學術學

13.

B.H





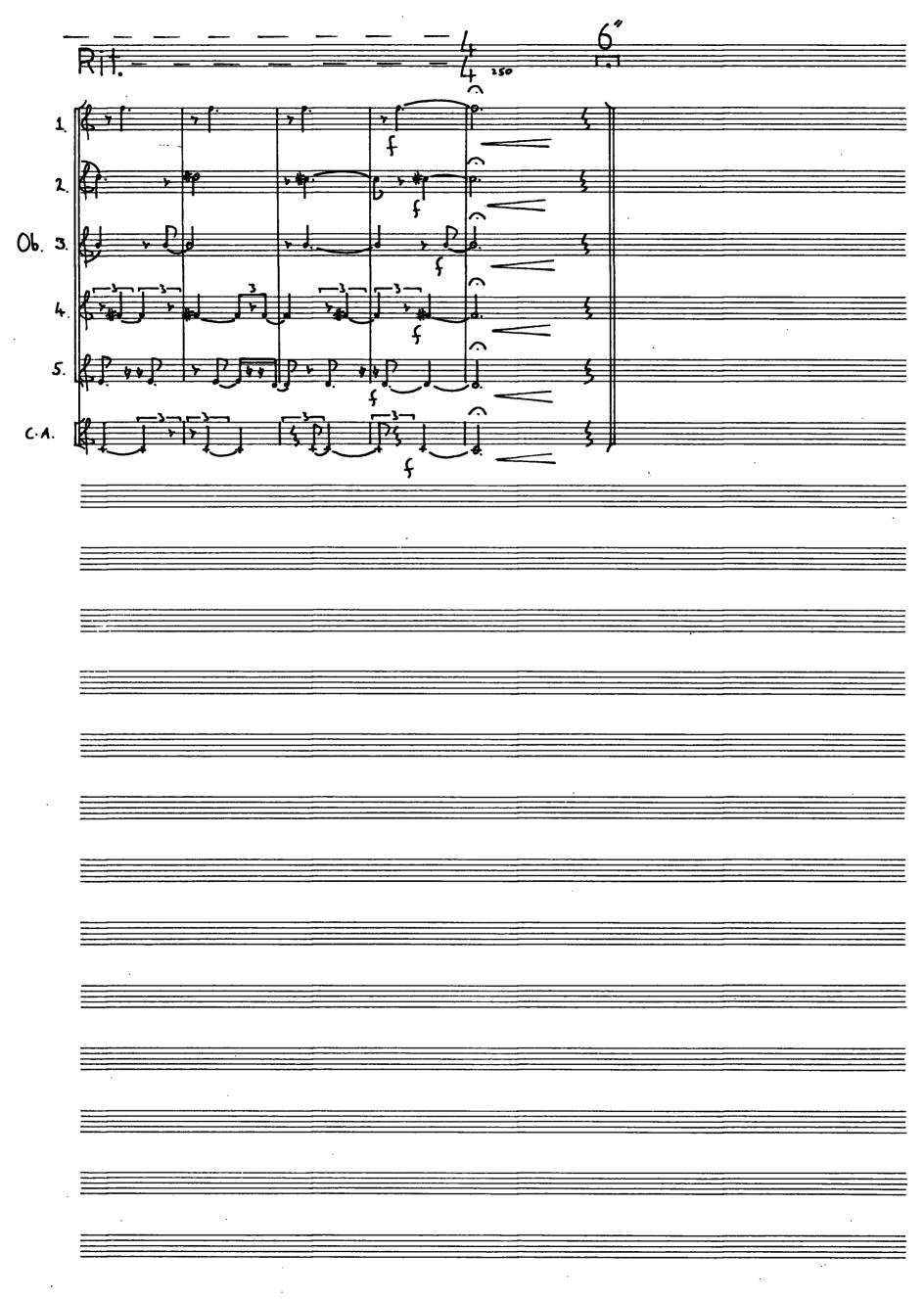
A.H

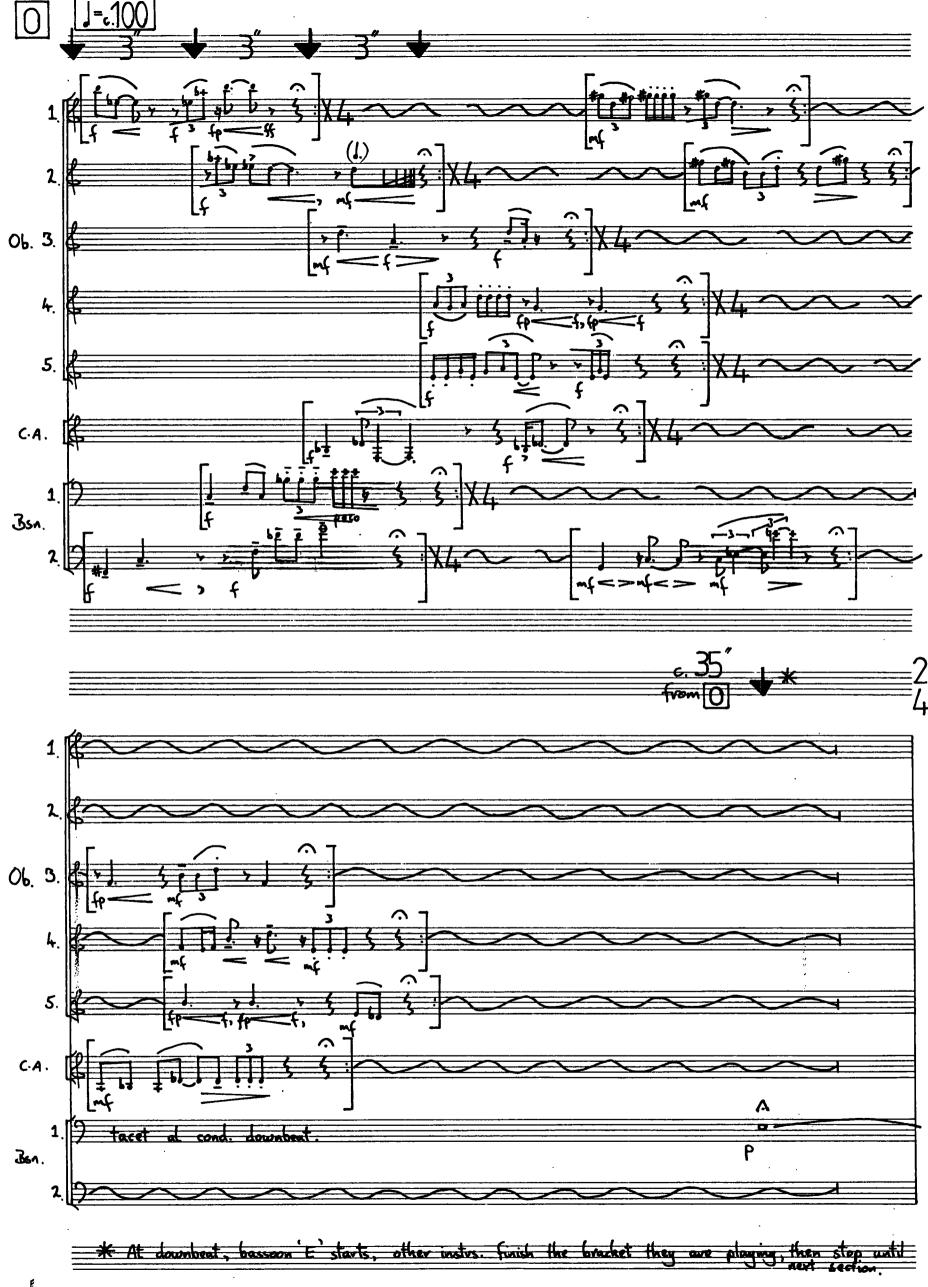






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September 2000 Septem

Contract to the second

a.H





Character state

(H.H)

Reed Music 2.

<u>by</u>

David Morris

Instrumentation.

5 OBOES
1 COR ANGLAIS
2 BASSOONS, 2nd doubling CONTRA.

ALL INSTRUMENTS (incl. contra) WRITTEN AT PITCH.

THE SIGN \$\ightarrow\$ DESIGNATES A MULTI-PHONIC; \$\ightarrow\$ \rightarrow\$ SHOWS MULTI-PHONIC NORMAL.

BRACKETS, [], ARE TO BE REPEATED A SPECIFIED NUMBER OF TIMES,
OR AD LIB UNTIL COMPUCTOR'S SIGN.

PAUSES. A DESIGNATES HOLDING NOTE UNTIL COMPUCTOR'S SIGN.

G.P. 15 ROUSHLY a 4 bar REST.

IS A PAUSE WITH APPROXIMATE DURATION IN SECONDS.

WRITTEN FOR THE BRITTEN-PEARS SCHOOL OF ADVANCED MUSICAL STUDIES.



2. 2 3 4 6 C·A. B. A. 1. B. 1. B. A. 1. B. 1. B. A. 1. B. 1. B. A. 1. B. 1

: "





Ø.H

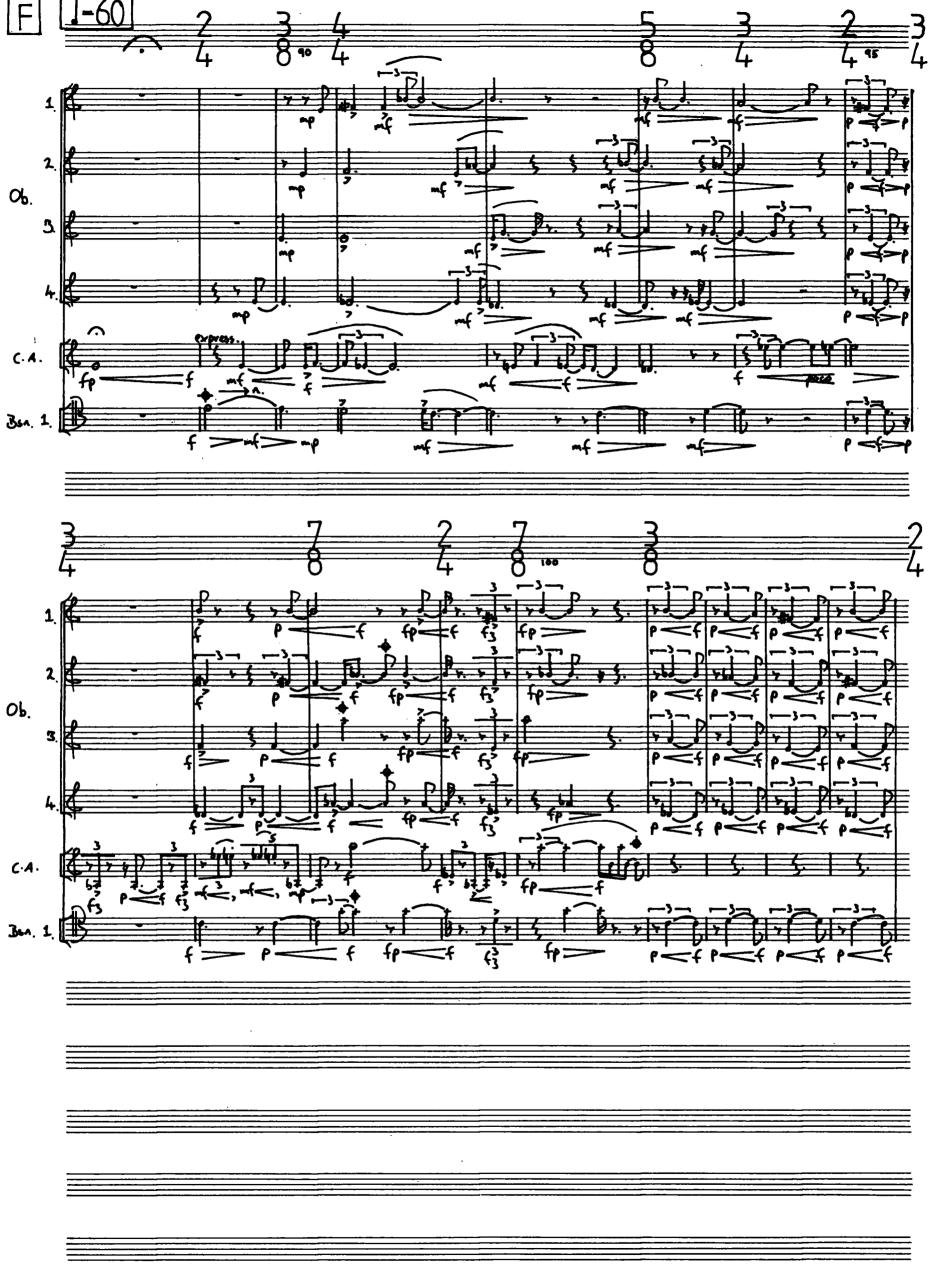




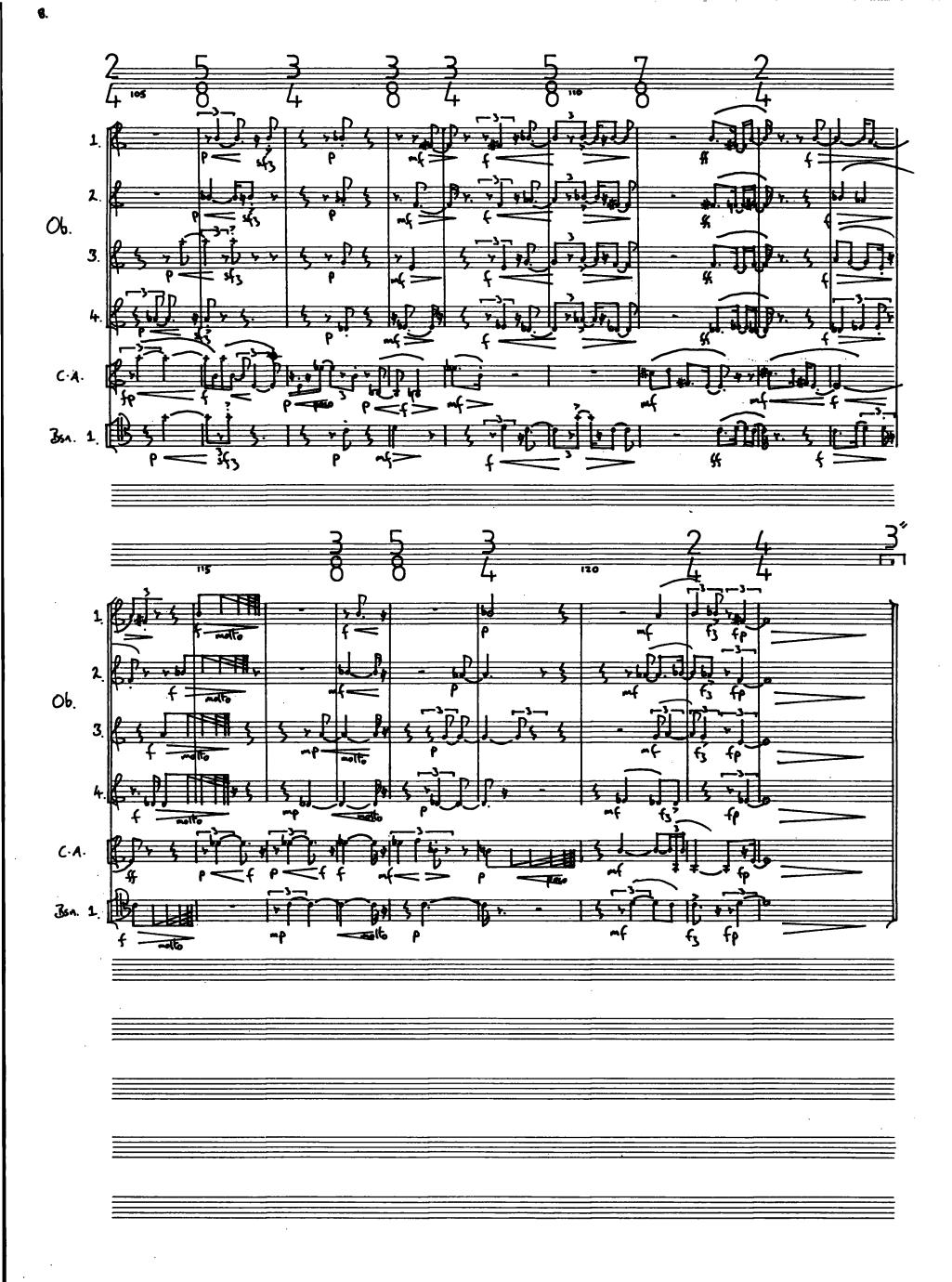
(F.H)

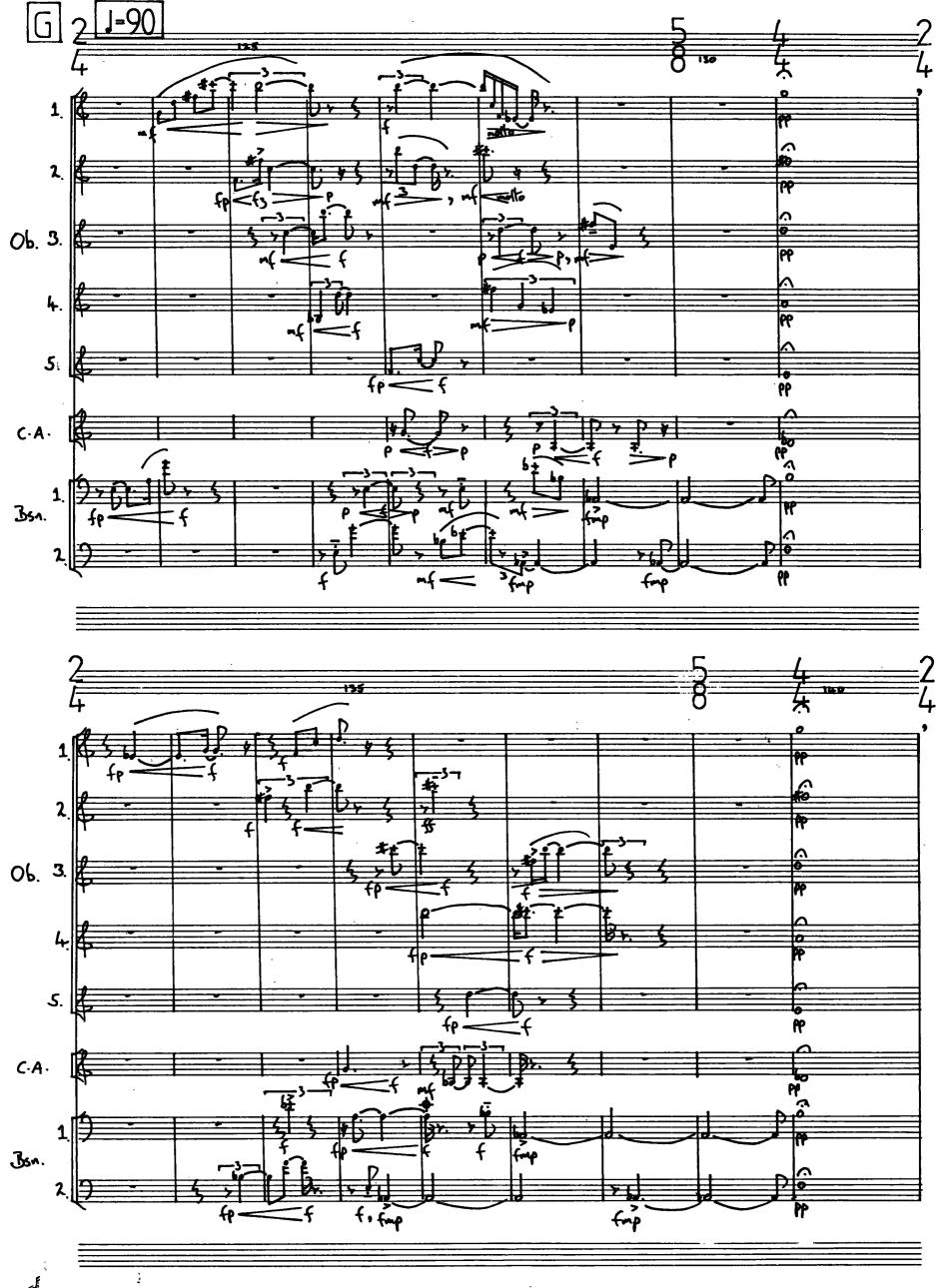






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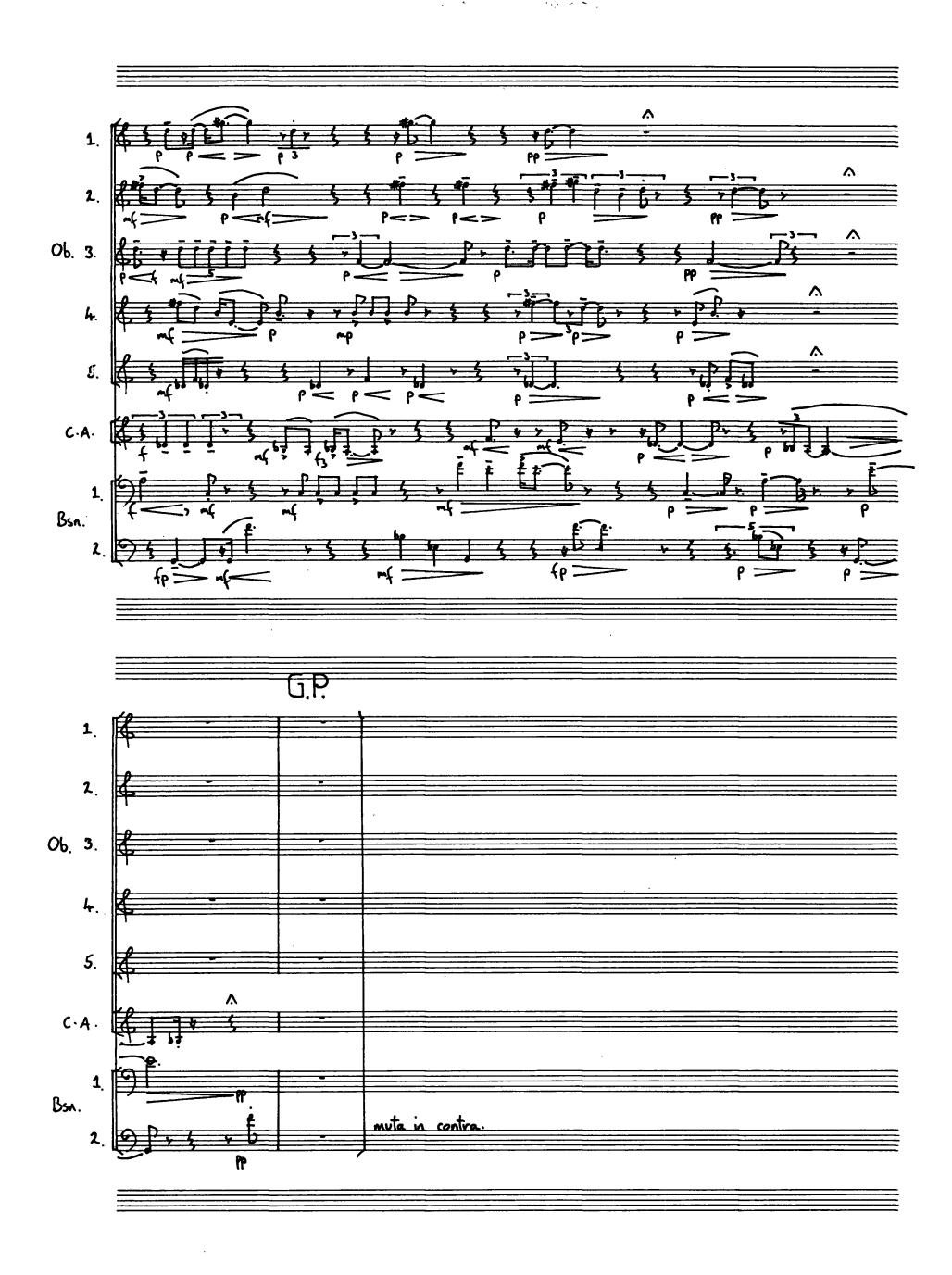




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A.H

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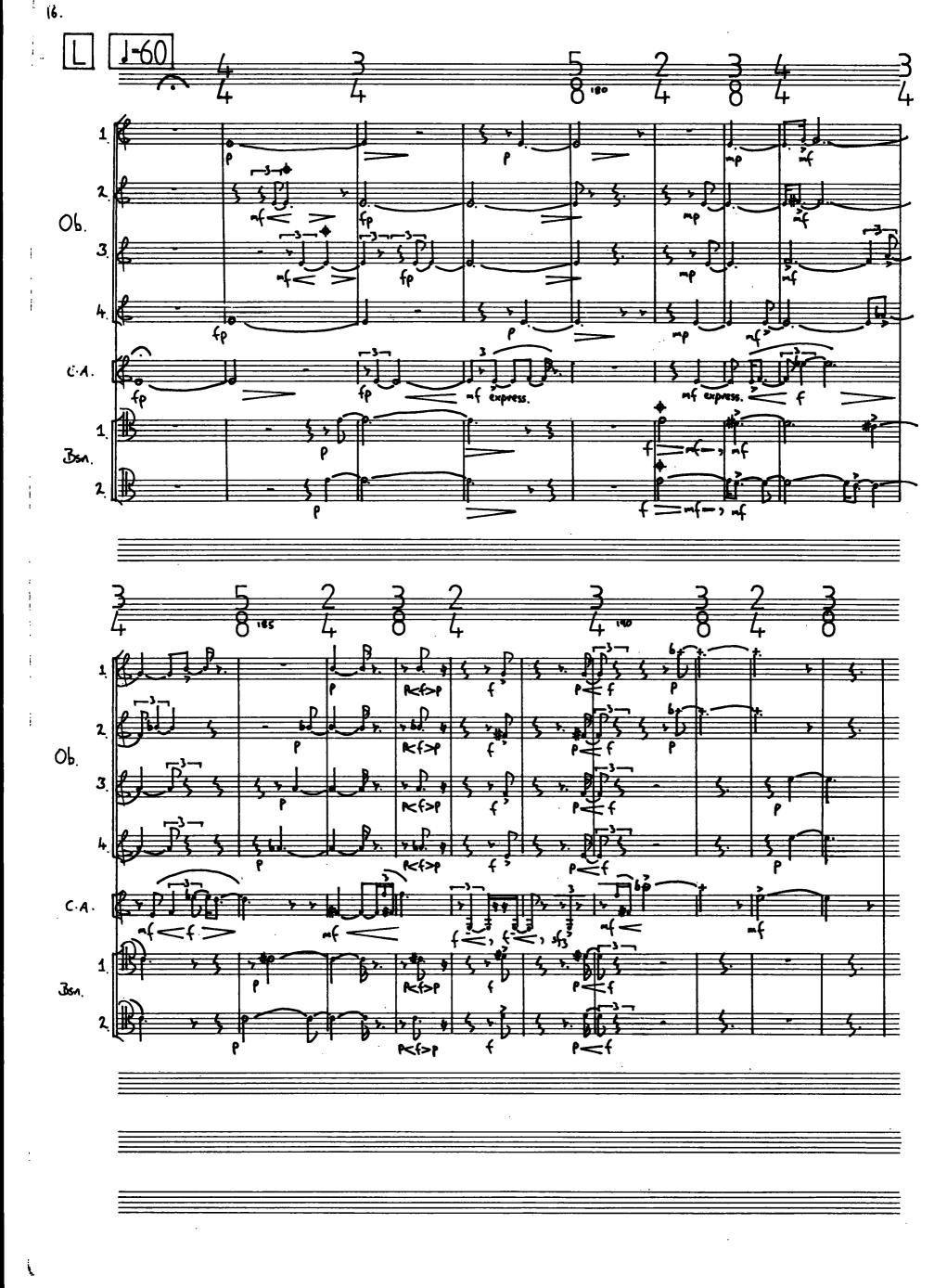


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15.



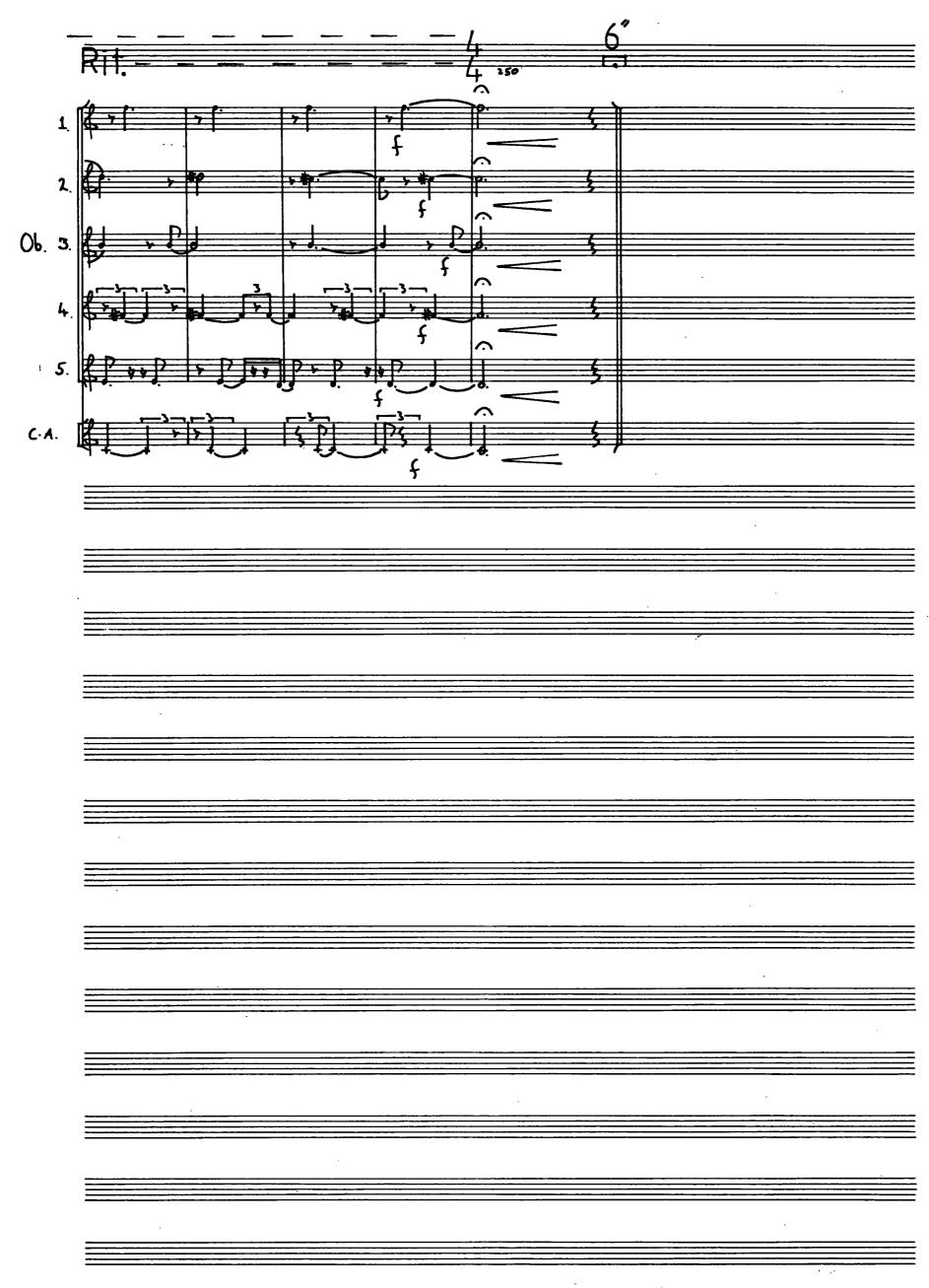
IJ.

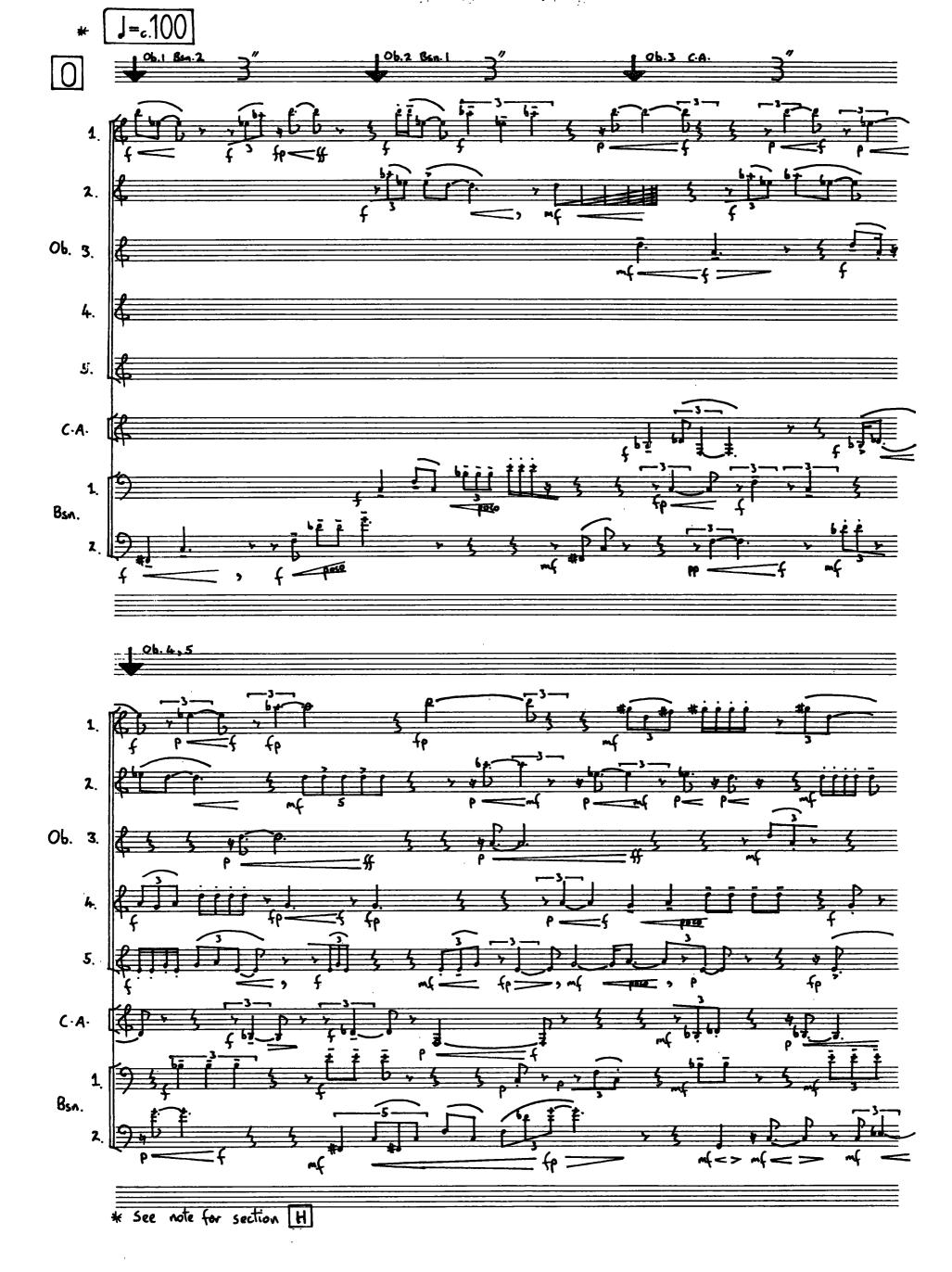


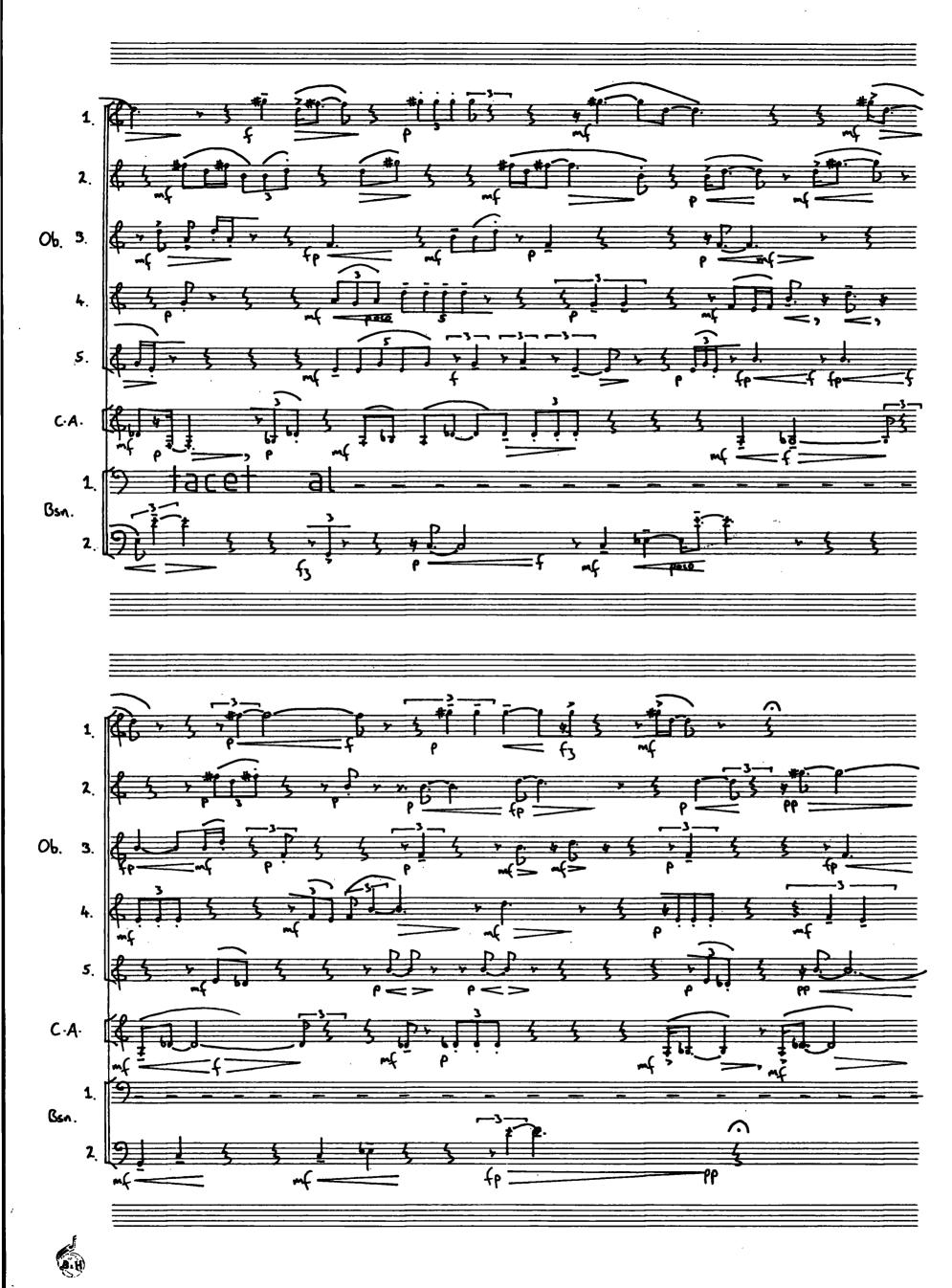


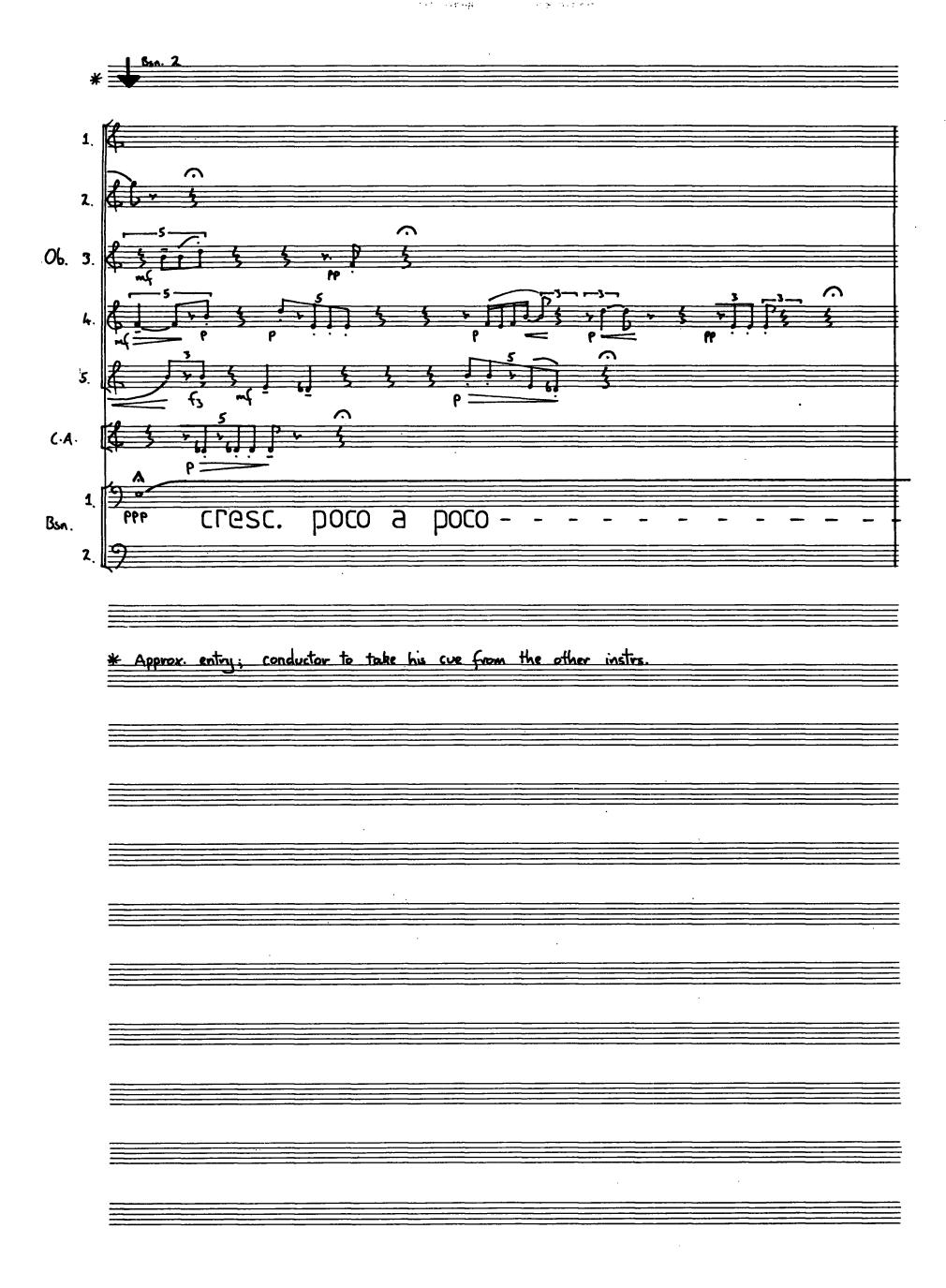


W.H













<u>In Praise of Ge-Nyan</u>

for large orchestra

by

David Morris.

Instrumentation

Percussion 3 Flutes, 1st doubling piccolo Instruments shared by 3 players 3. 3 Obors, 3rd doubling cor anglais 3 Clarinets, 3rd doubling bass clarinet Crotales 3 susp. cymbols Bass drum 3 Bassoons, 3rd doubling contra bassoon. Slockenspiel Bells Gong 4 Homs 3 tom-toms 3 tom-toms Xylophone Snave drum Glockenspiel 3 Trumpets

Crotales

3 Timpani

3 Trombones

Piano

Strings

All instruments are written at pitch except octave doublings on: piccolo, glockenspiel, double-bass.

Accidentals apply only to the notes they precede unless immediately repeated.

Written for the Ian Whyte Award 1981.



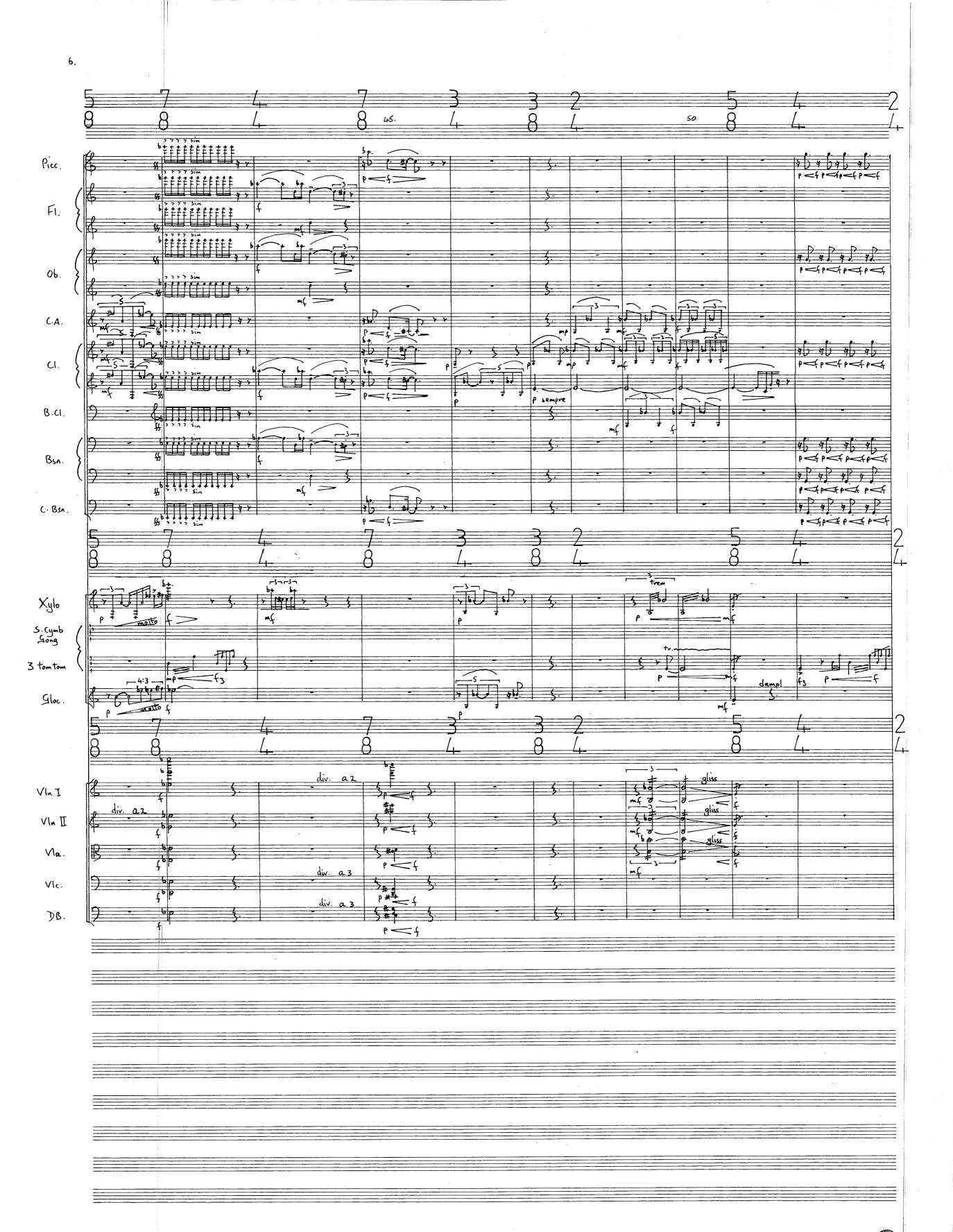








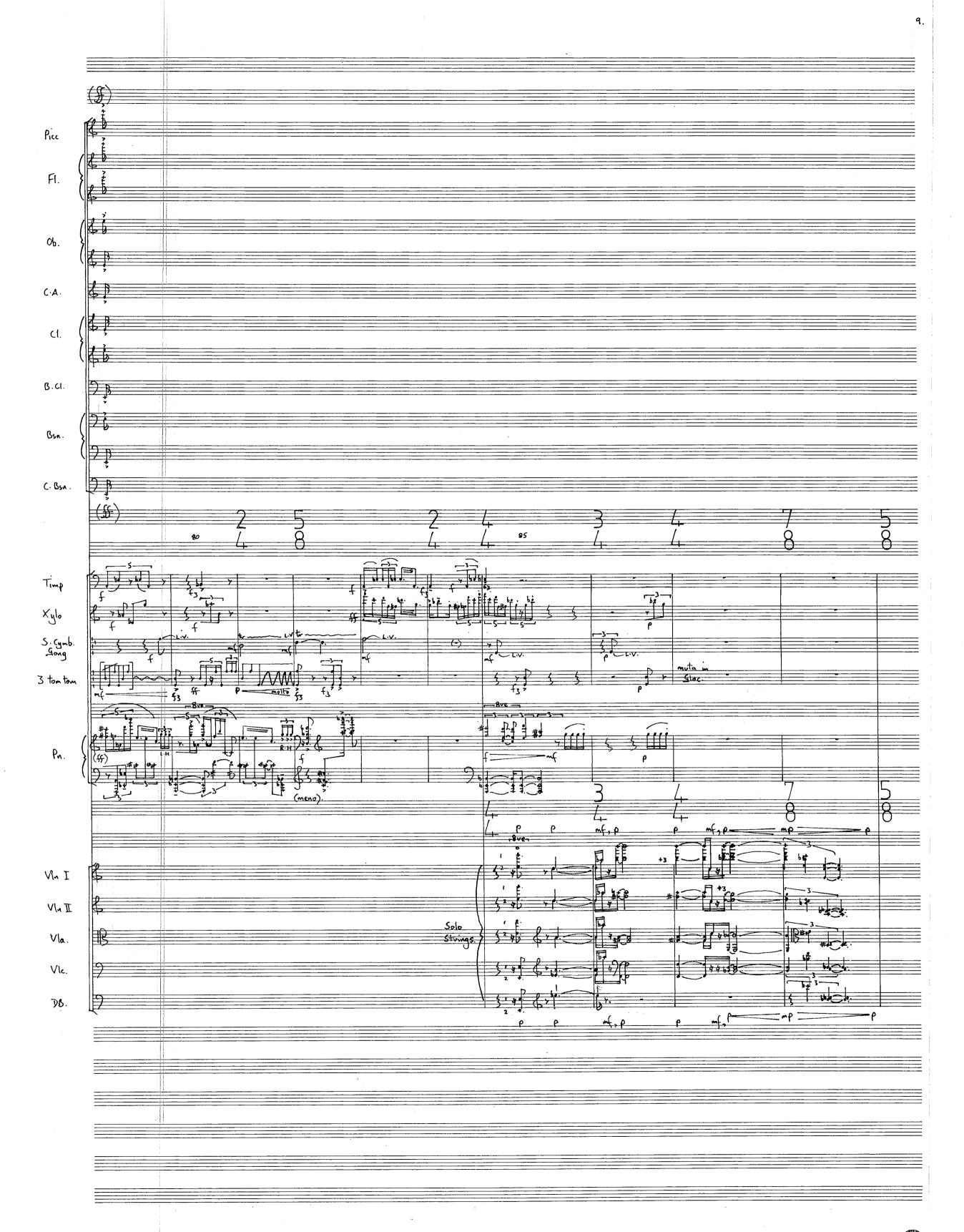




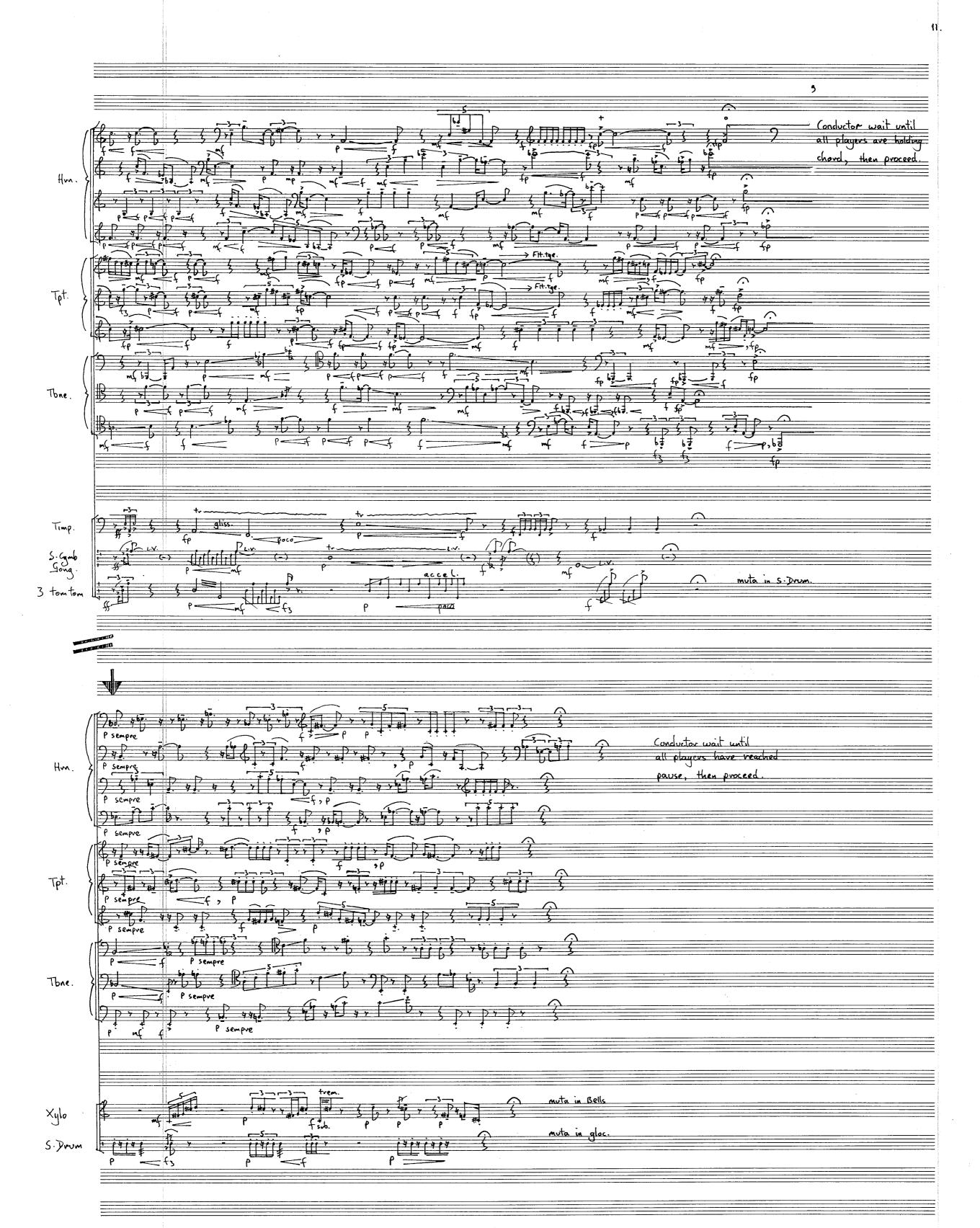




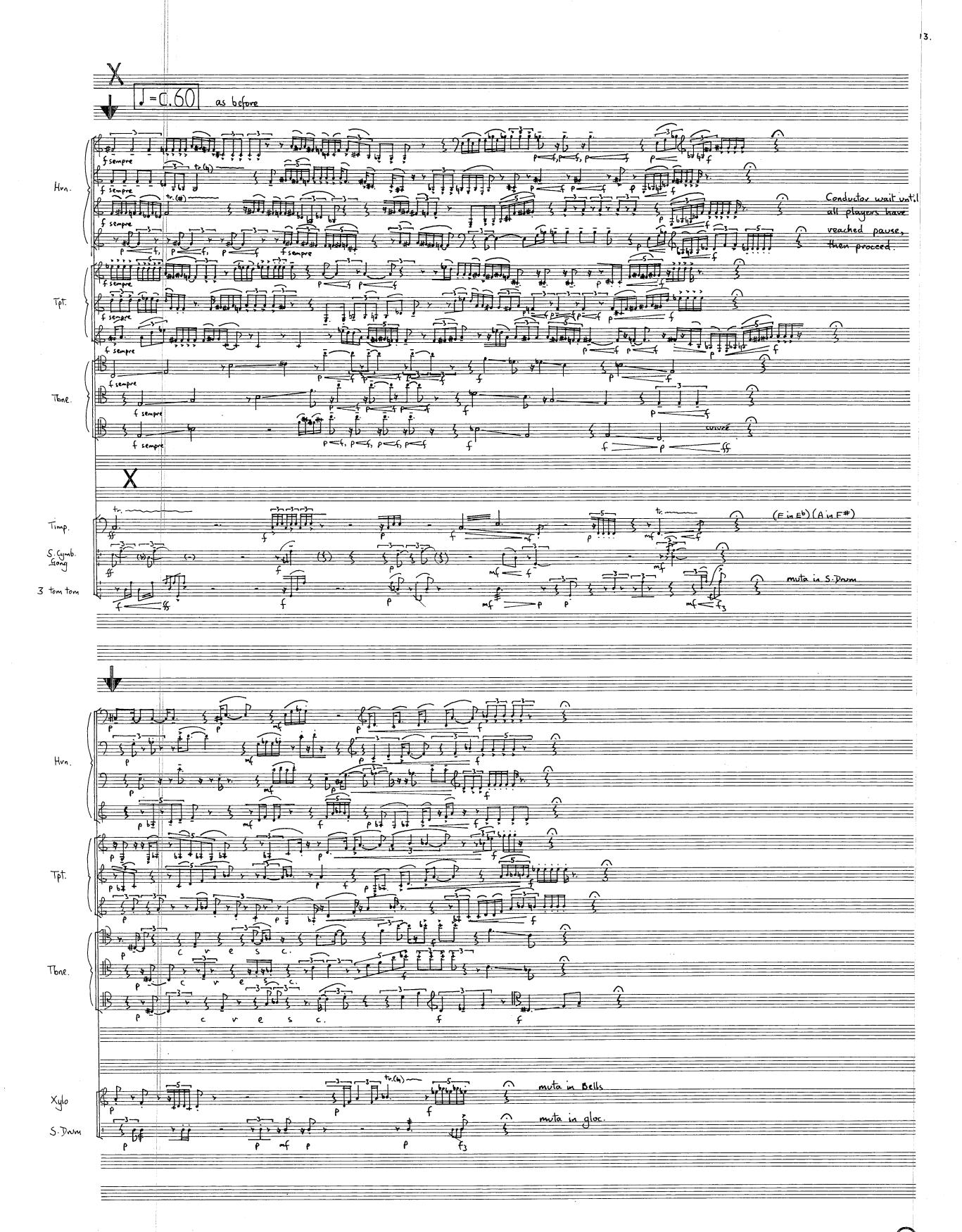










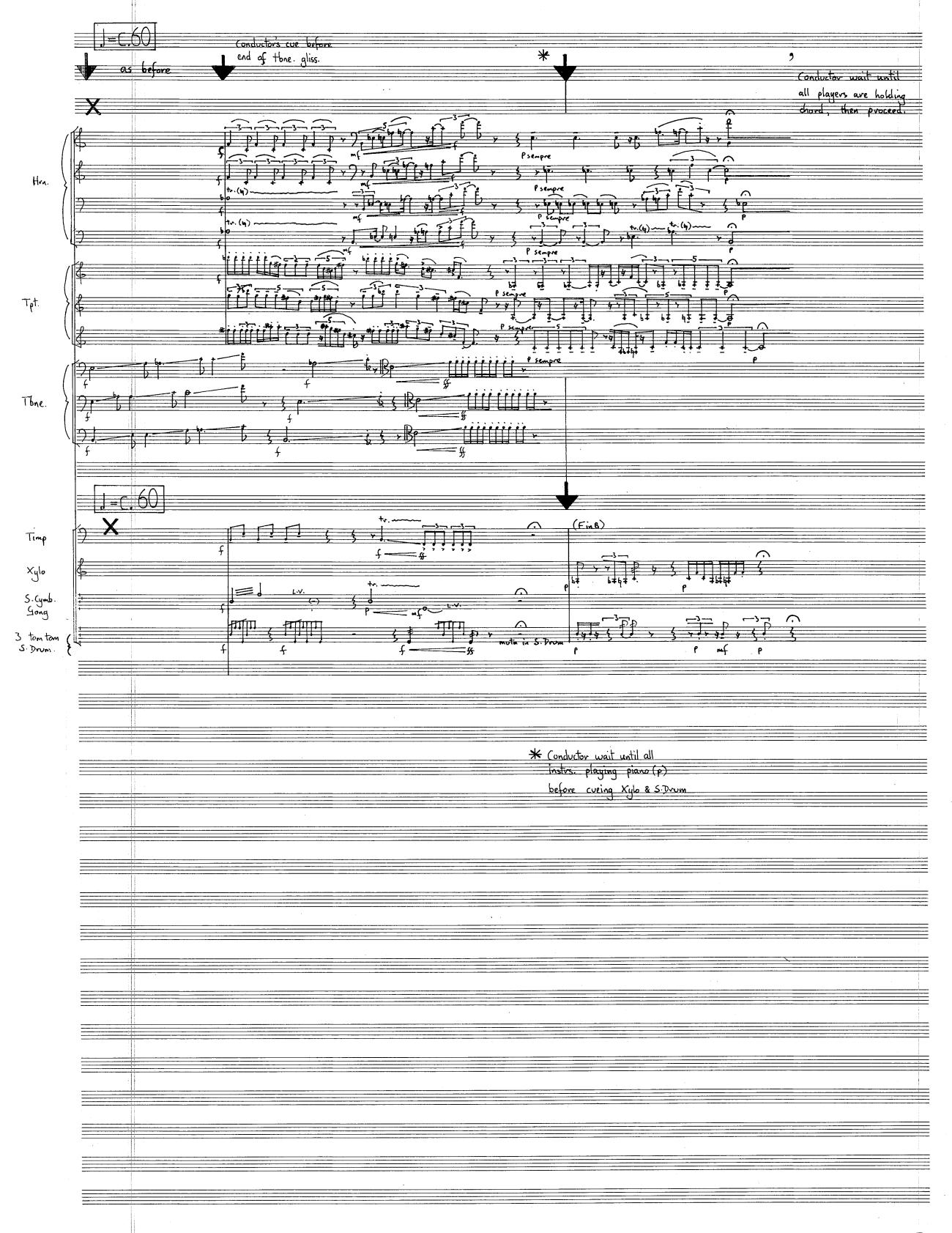


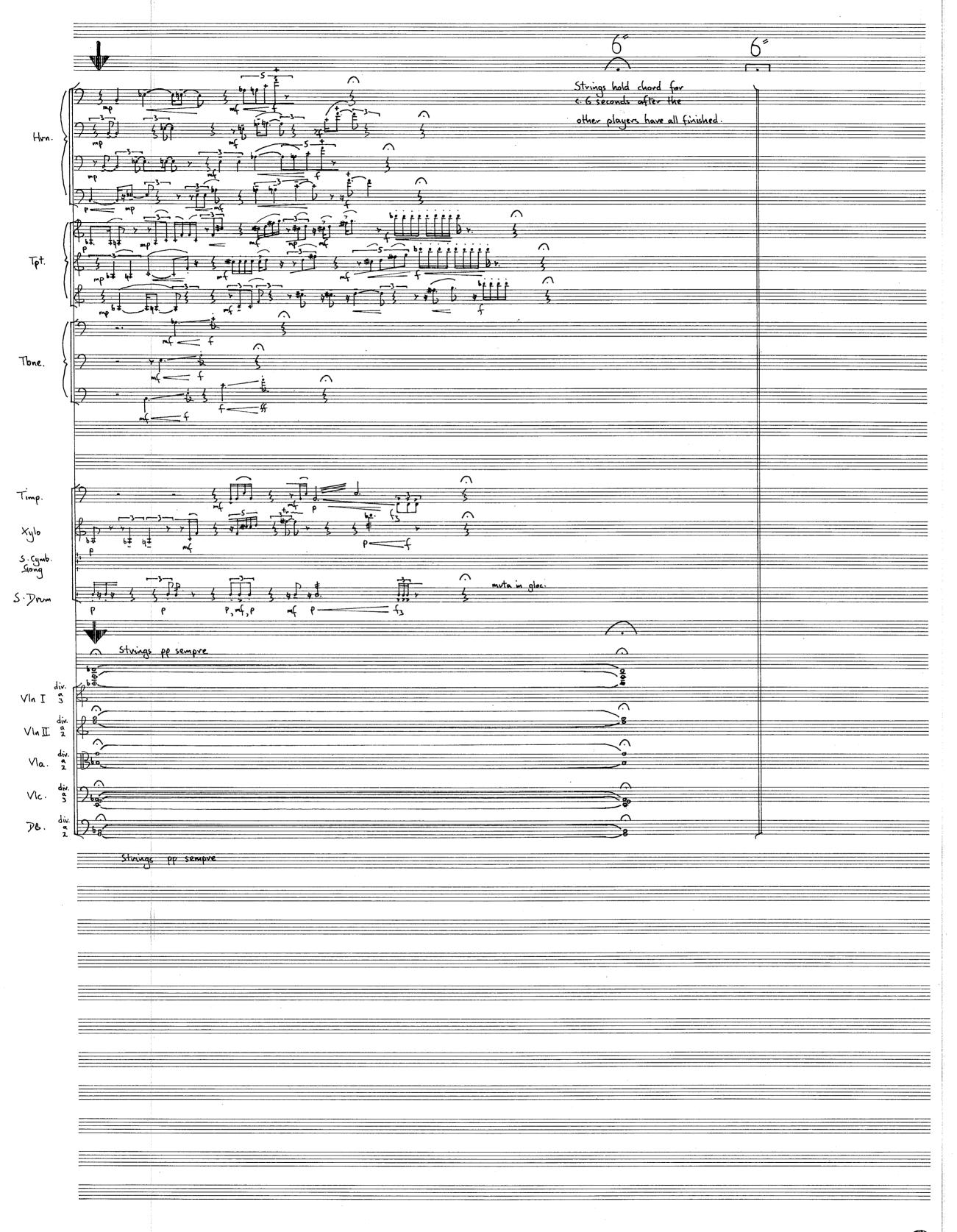




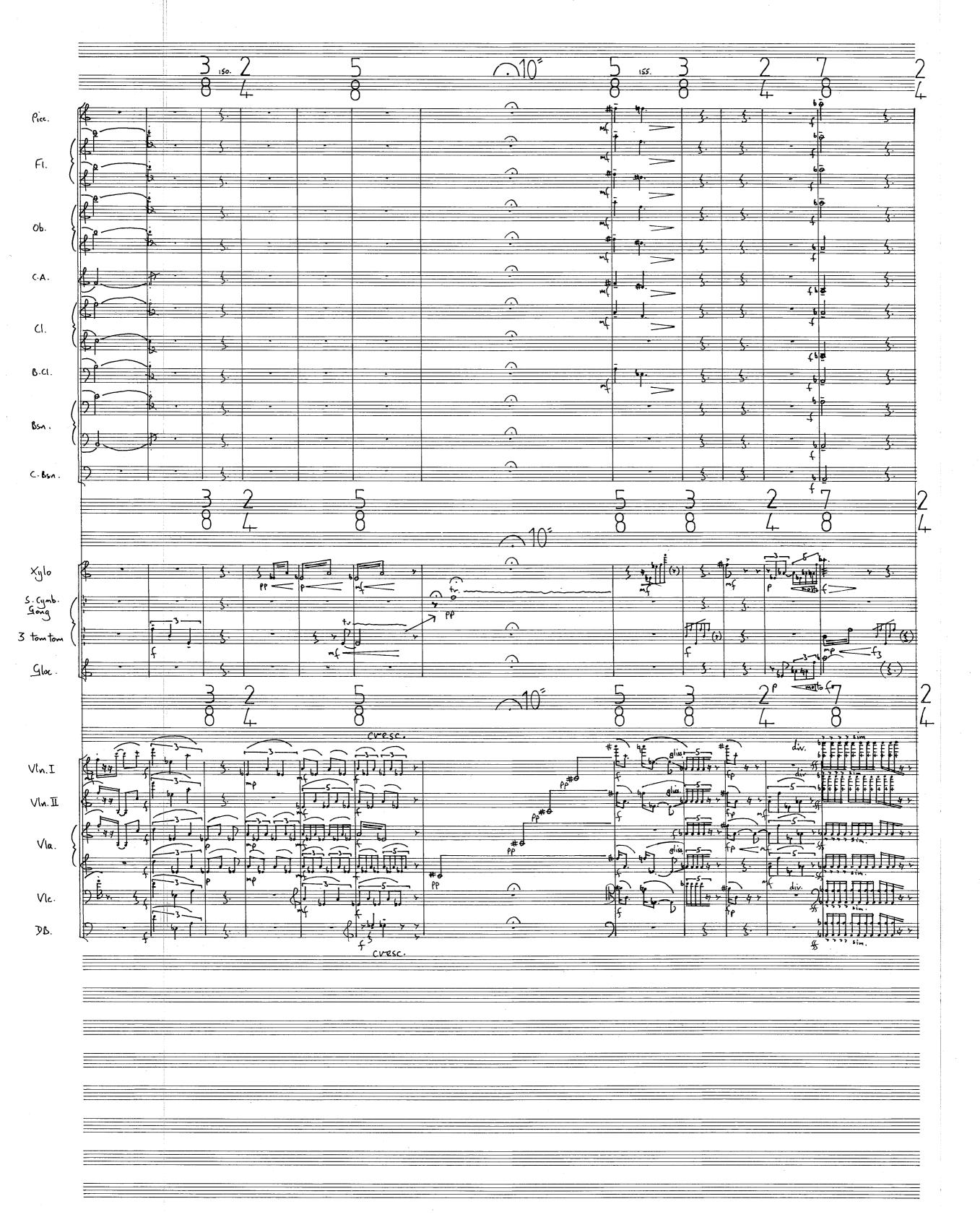






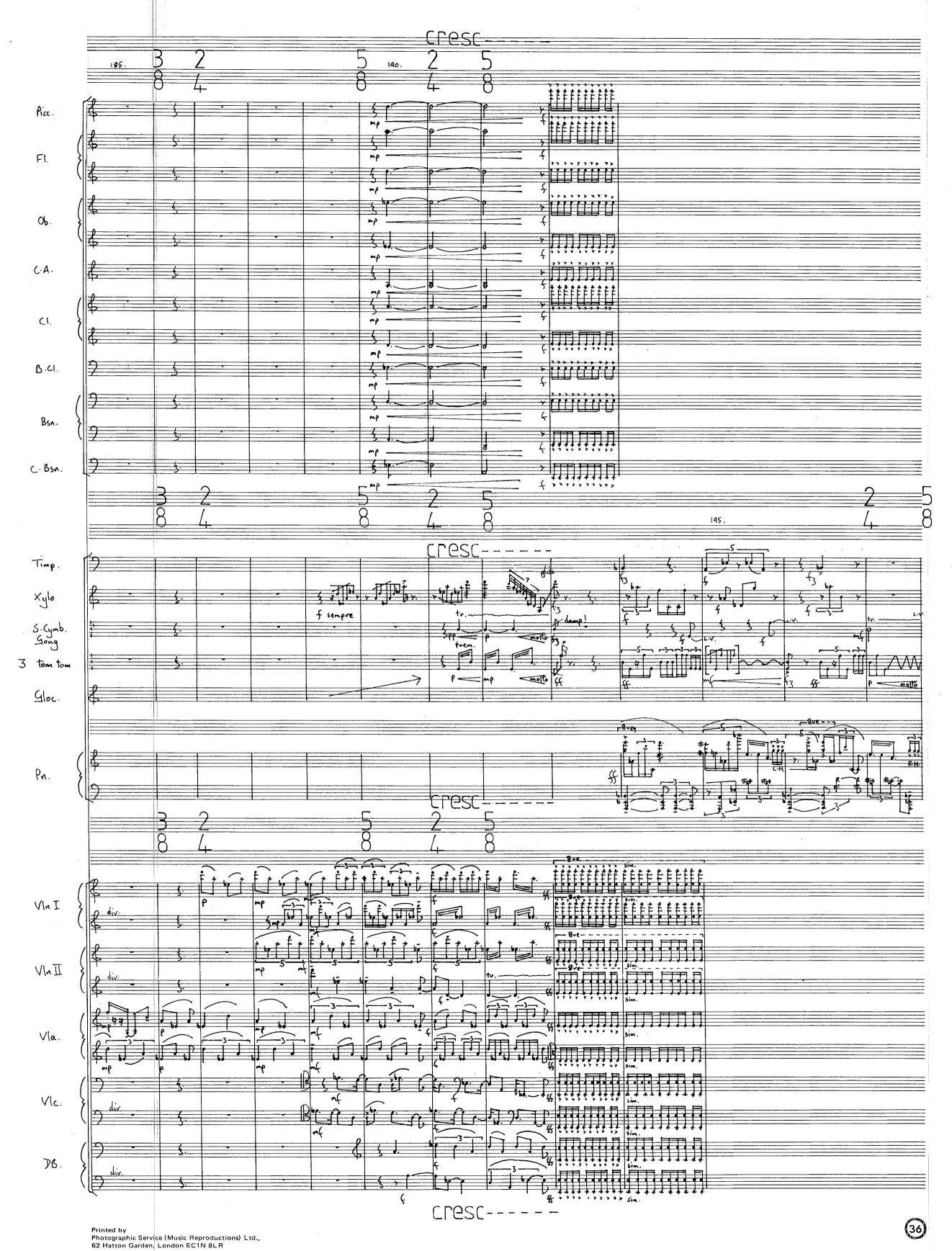


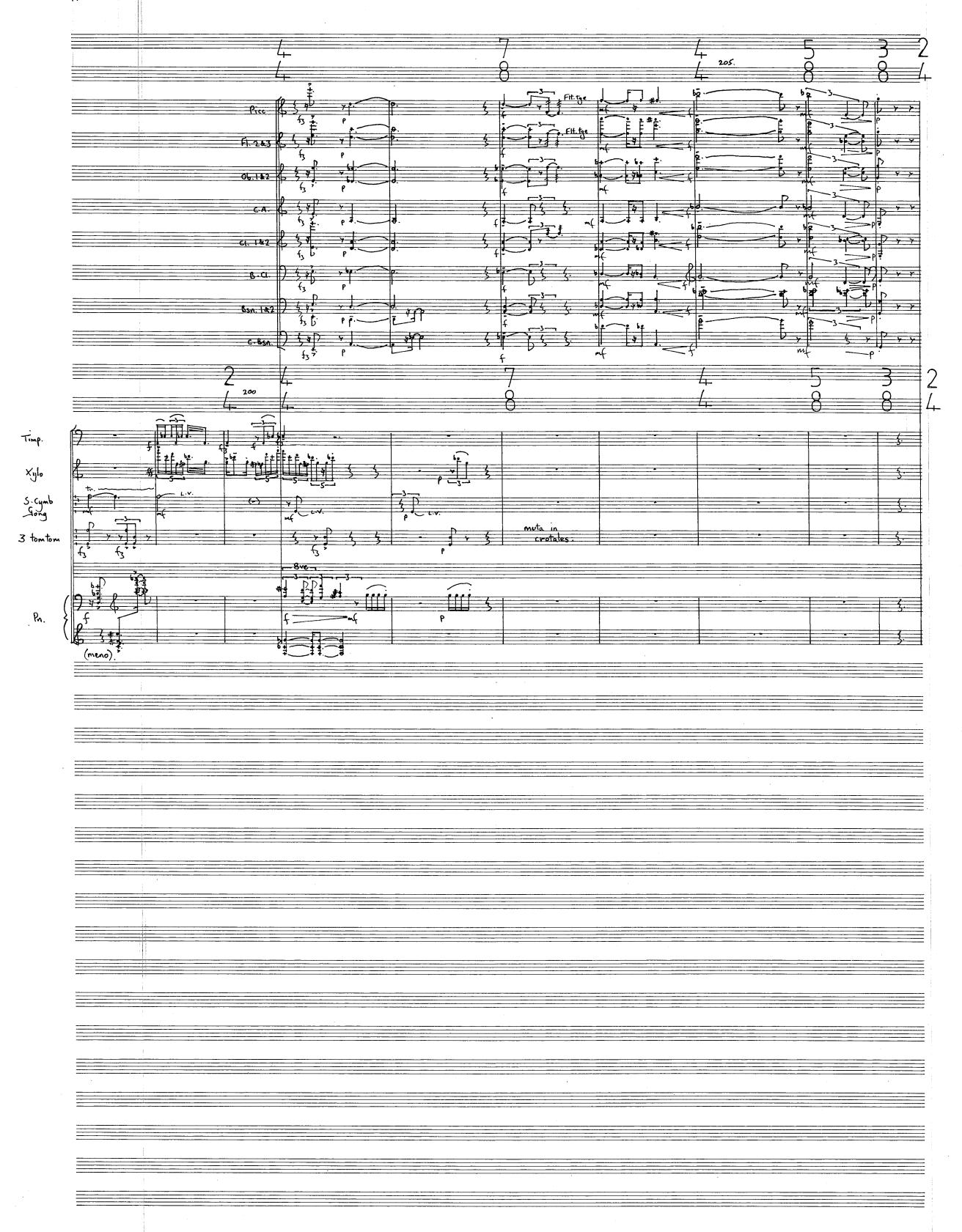










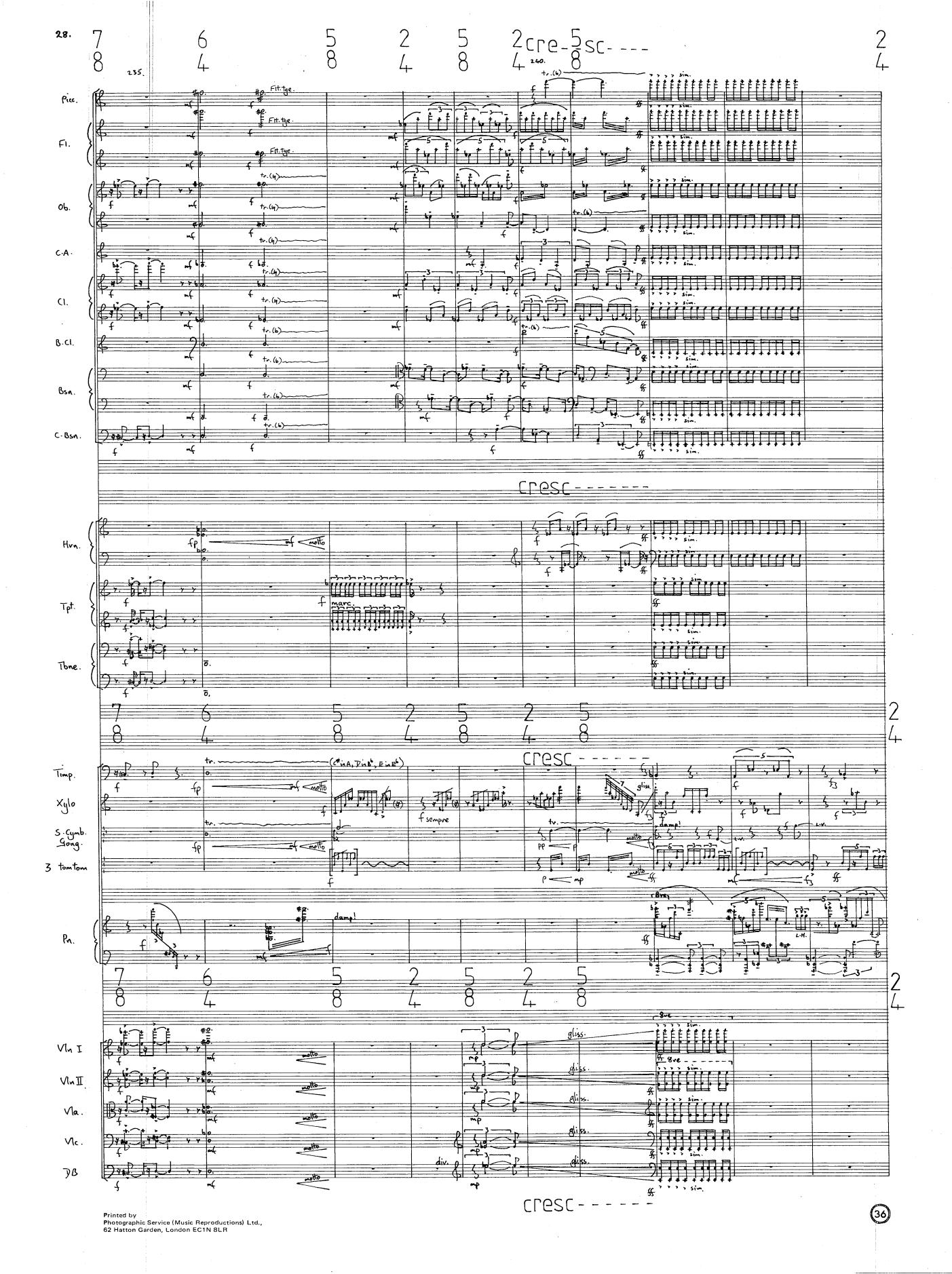








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