

Kaija Saariaho

Io

**pour 16 musiciens, bande réalisée par ordinateur, et electronic-live
(1986-87)**

Commande de l'IRCAM

dédiée à Peter Eötvös

Instruments:

flutes (2 musicians): 2 flutes in c, 2 piccolos, 2 alto flutes in g

bass flute

2 horns in F

trombone

tuba

percussions (2 musicians):

1. marimba

xylophone (for both musicians)

glockenspiel

crotales (for both musicians)

tubular bells

suspended cymbals (medium, large, for both musicians)

bass drum (on side)

gongs (for both musicians)

maracas

2. vibraphone

(xylophone)

(crotales)

(suspended cymbal)

(gongs)

sandpaper blocks

timpani

piano/celesta (1 musician)

harp

2 violins

alto

violoncello

double bass

NOTATION

The bar lines serve mostly as a means of synchronization, so bar lines and beats never mean an accentuation. The music should flow smoothly.

Piccolo, xylophone and double bass are marked in the usual octave transpositions.

Crotales and Glockenspiel sound two octaves higher than written. Alto flute in G is written with its usual fourth and horn with its fifth transposition. The harp sounds should always be allowed to ring as long as possible. The sordino for the brasses is always straight.

When the dynamic mark is followed by "- - - -" the dynamic level should be kept as even as possible for the period indicated. However, when marked "pp" or "pp (sempre)" the pp should be considered a general dynamic level, within which the player can make the usual slight microvariations in dynamic.

When vibrato markings are not specified, players can use their usual vibrato. "Molto vibrato" always means a rapid and narrow vibrato, unless otherwise specified. Tremolo should always be as dense as possible.

GENERAL MARKS

—————→ change very gradually from one sound or one way of playing (etc) to another

∩ • diminuendo al niente

• ∪ crescendo da niente



S.V. senza vibrato

L.V. let vibrate (always as long as possible)

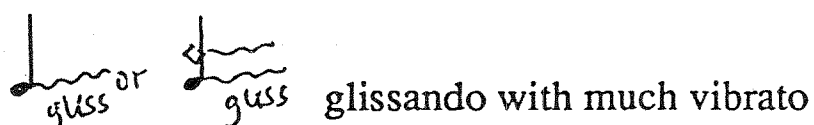
microintervals:

- ♯ note raised a 1/4 tone (between and upwards)
- ♯♯ note raised a 3/4 tone (between and upwards)
- ♭ note lowered a 1/4 tone (between and downwards)
- ♭♭ note lowered a 3/4 tone (between and downwards)

For glissandi there are three different notations:

 or 

this glissando should always be played very evenly, without vibrato and accentuations



for the strings:



glissando with artificial harmonics, in which the upper finger is constantly moving and thus creating a rich sound with vividly varying pitches, instead of one gliding pitch

All the glissandi should be started immediately at the beginning of the note value. The pitches within the brackets "()" during the glissandi are there to show the approximate speed of the glissandi, and are not to be played with any accentuation or tenuto.

STRINGS

S.P. always estremamente sul ponticello

S.T. sul tasto

N normal (used with S.P. and S.T., otherwise ord.)



always natural harmonic



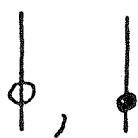
add bow pressure to produce a scratching sound, in which the audible pitch is totally replaced by the noise



as above but move back from noise to tone again

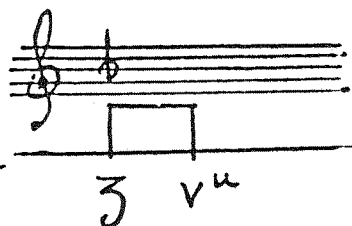
When playing long sustained tones the bow changes should always be made imperceptible and independently of the other players. During long slurs which include several long sustained notes a change of note should preferably not coincide with a change of bow.

FLUTES and BRASSES



breath tone: use the fingering needed to produce the marked pitch, however, don't produce the normal tone but just blow air through the instrument

FLUTES



whisper the given phonemes in a rhythm indicated into the instrument while simultaneously playing the pitches and other events as marked

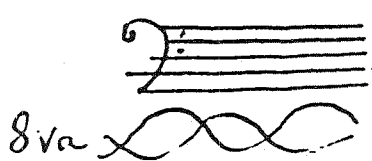
The phonemes are marked following the international phonetic alphabet, and are pronounced as follow:

f f as in English fife
 p p as in English pat
 b b as in English bat
 l l as in English aw
 k k as in English kast

v v as in English vife
 θ th as in English thy
 h h as in English hat
 s s as in English sue
 ʃ ss as in English mission
 ʒ s as in English vision
 z z as in English zip
 ʧ ch as in German ich
 ʁ ch as in German Ach
 R r as in German rein
 ʀ r as in French sur
 ɐ er as in English bird

The small vowels written before or after the phonemes are supposed to be pronounced as quickly as possible before/after the principal phonemes.

PIANO



stroke the strings with timpani mallets on the lowest register to produce a continuous soft tone field

pizz

pizz. pizzicato on the strings
 (mark the pitches beforehand)

Kaija Saariaho: IO / the electronic part

-amplification for 10 instruments:

- 2 flutes, bass flute, 2 vlms, va, vc, cb, celesta, harp
- Yamaha digital mixer **DMP7** and **MLA7** pre-amplifier
- digital reverb **Lexicon PCM-70**
- **1/2 or 1/4 inch 4 track tape recorder** with **DBX noise reduction**
- **six very high quality loudspeakers** to be placed in the room as marked in the drawing: the tape part will be sent quadrophonically to the loudspeakers A, B, C and D. The instruments and their modified sounds are sent to the four front loudspeakers A, B and a,b (see the drawing). If only four loudspeakers would be available, they are placed as A, B, C and D. In this case the instrumental sounds are sent only to the front speakers.
- **two small monitors** for the conductor
- **mixing table** for the tape, Lexicon stereo output, DMP7 stereo output, and for 3 premixed strings (which are sent to a common channel in the DMP7; see the drawings).

The cartridge for the DMP7 as well as all the other material including the tape are available from Edition Wilhelm Hansen (address below). The program changes of the DMP7 will be printed in the final score. If your score doesn't have the numbers of the programs to be changed, please ask for a renewed version.

Two persons (minimum) are needed to take care of the electronics: one person for the tape recorder and general levels, the other for the program changes and levels of the DMP7.

+++

If the DMP7 digital mixer is **not** available, another configuration is possible. Here are needed

- **amplification for 10 instruments** as above
- digital reverb **Lexicon PCM-70**
- **Yamaha SPX90** or **REV5** digital effect processor or **Publison harmonizer** (used as harmonizer)
- possibly, if the hall is dry, another digital reverb (to be added permanently to the amplified sounds)
- **1/2 or 1/4 inch 4 track tape recorder** with **DBX noise reduction**
- **six very high quality loudspeakers** placed as indicated above
- **two small monitors** for the conductor
- **mixing table** minimum 16x4 (with 4 auxiliaires), larger if extra reverb is added

The harmonizer is set to produce microtonal pitch shifting, the transposition being about 50 cents (1/4 step) on the both sides of the input signal. In the current score the harmonizer is marked PUBLISON.

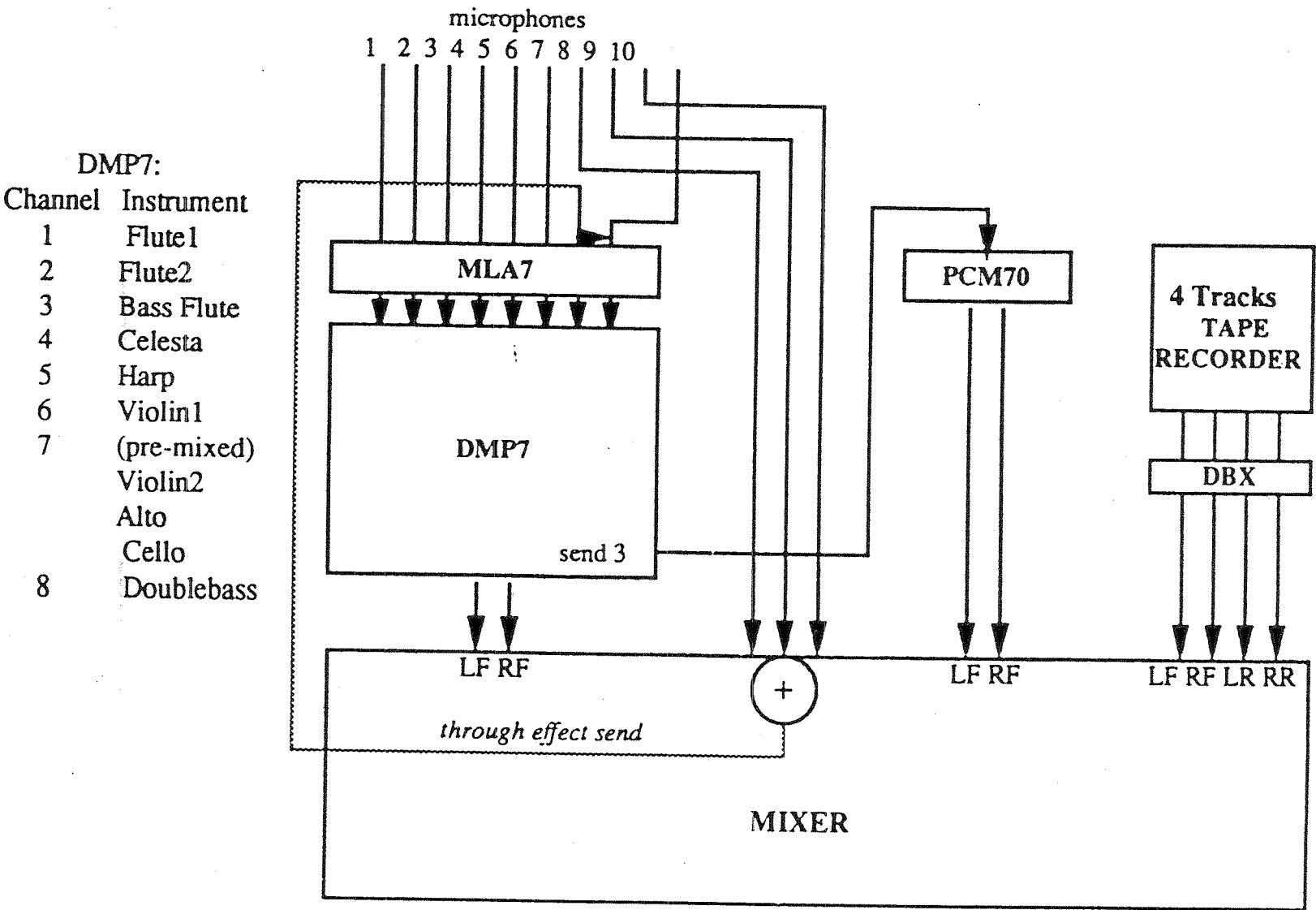
The reverb time of the Lexicon PCM70 (in the score PCM) is set in the beginning to 6 -11 seconds (depending on the hall).

For a realization of this version three persons are needed.

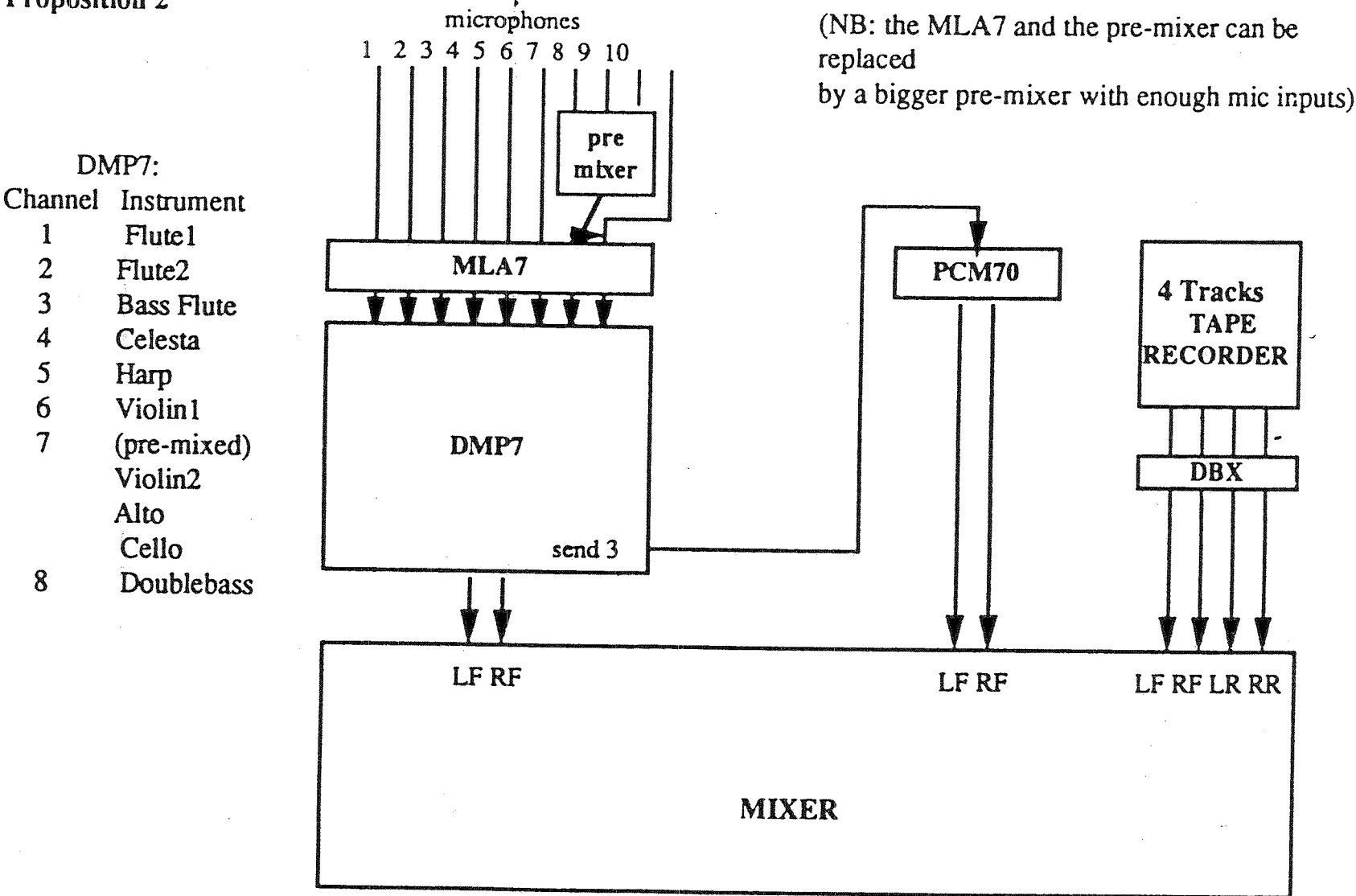
Edition Wilhelm Hansen Bornholmsgade 1 1266 Copenhagen K
tel (45 33) 11 78 88 fax (45 33) 14 81 78

Kajia SAARIAHO: " IO " (1986/87) / Propositions for the set-up of the electronics

Proposition 1



Proposition 2



Kaija Saariaho
IO / DMP7

1) The instruments are on channels 1-8 as follows:

channel 1 = flute1

channel 2 = flute2

channel 3 = Bass Flute

channel 4 = Celesta

channel 5 = Harp

channel 6 = Violin1

channel 7 = premixed Violin2, Alto, Cello

channel 8 = Doublebass

2) The programs marked in the score 1-26 are on the cartridge memory locations 31-56. DON'T modify these original programs, but copy them into DMP7 internal memory, and make then slight adjustments, if needed.

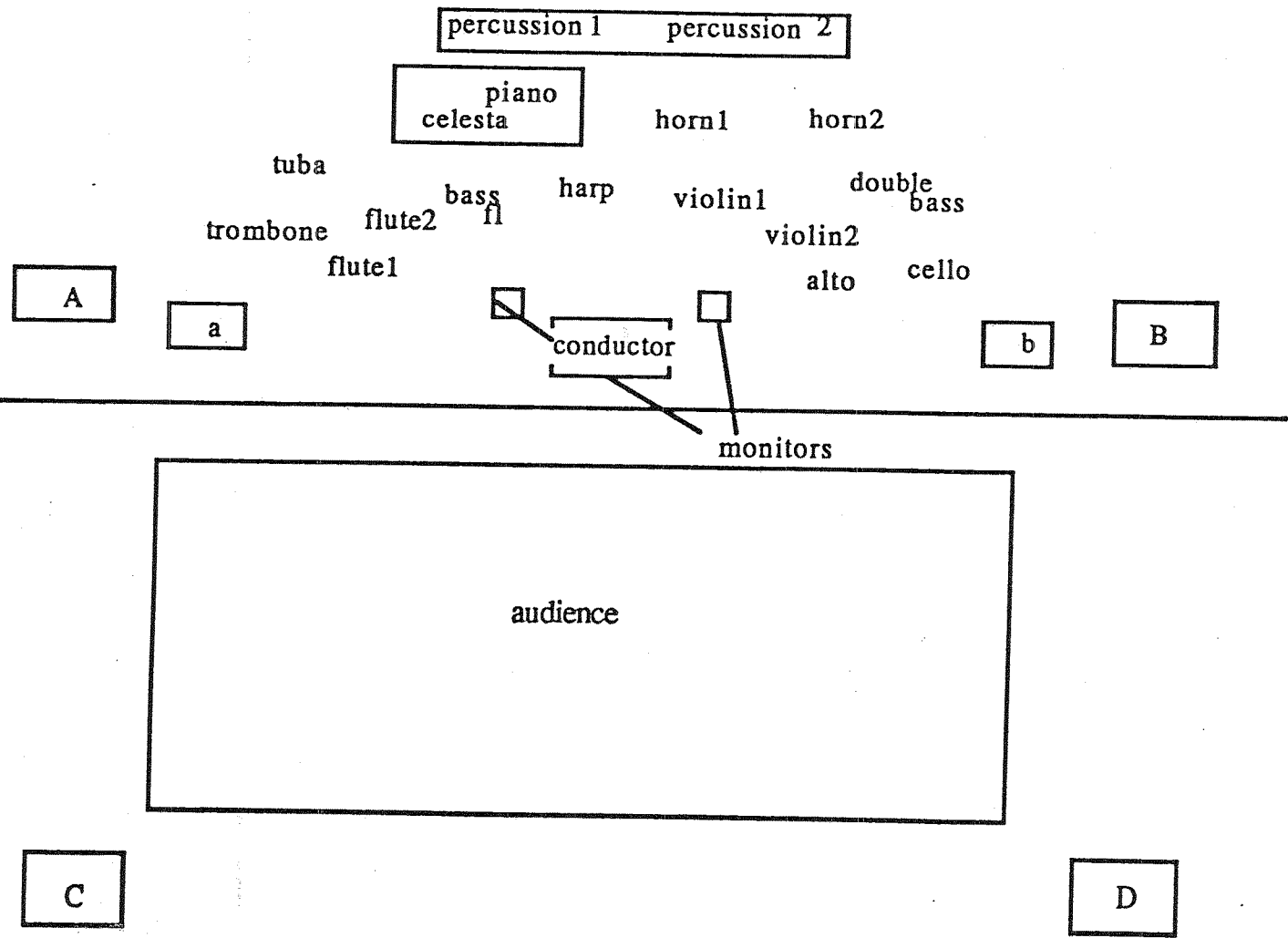
3) Change the programs exactly when marked in the score.

4) The amplitude levels recorded in the programs are to be considered as references: it can be necessary to adapt them according to the different types of microphones used or to a given room acoustics.

5) The general level should be set to be rather loud, nevertheless not painfully so!

H

Kaija Saariaho: Io/ proposition for the seating arrangement
and placing of the loudspeakers



♩ = 60

3 energico,
espressivo 4

3

4

alto FL1 in G voice s

alto FL2 in G voice h

BASS FL voice 8

f sempre f

tr

tr

tr

tr

COR1, 2 in F (con sord: straight)

TRB (con sord: straight)

TUBA (con sord: straight)

crotales sff

PERC1, 2 vibr (motor off) sff

L.V.

f

f

f

f

L.V.

celesta sff

L.V.

L.V.

L.V.

L.V.

L.V.

4 D4 E4 F#4 G4 A4 B4 HARP sff

L.V.

L.V.

sf Db sf sf

L.V.

L.V.

VL1 s.v. very slow bow

f

VL2 S.T.

f

VA

VC S.T.

f

CB S.T.

PUBLISON
→ flutes: pitch shifting

PUBLISON:
fls + strings

TAPE (transformed base flute sounds)

DMP7 ①

3⁶ 2 3 2^A 5/4

Handwritten musical score for various instruments and sections. The score is divided into measures by vertical bar lines. The instruments and sections listed on the left are:

- alto FL1
- alto FL2
- BASS FL
- COR1,2
- TRB
- TUBA
- crot
- PERC1,2
- vibr
- celesta
- HARP
- VL1
- VL2
- VA
- VC
- CB
- TAPE

Key markings and annotations include:

- Tempo/Style:** *Sempre espr.*
- Performance Instructions:** *gliss*, *f poss.*, *sempre*, *tr*, *energico*, *8va*, *tr*, *(ped.)*, *L.V.*, *very slow bow*, *S.P.*, *S.T.*, *N*, *mf*, *f*, *mp*, *pf*.
- Harmony/Chords:** D \flat C \sharp A \sharp , A \flat .
- Section Markings:** (con sord.), (PUBLISON: strings, flutes), (PUBLISON: only flutes).
- Measure Numbers:** 12, 17, 25, 31,5.
- Other:** Glockenspiel, DMP7:1, 2, 25, 31,5.

Handwritten musical score for a large ensemble. The score is divided into measures by vertical bar lines. Above the first measure, there are handwritten numbers: 2, 3, 3/4, 2, and 5/4. A box labeled 'B' is placed above the 2nd measure. The instruments and parts are listed on the left side of the score:

- alto FL1
- alto FL2
- BASS FL
- COR1,2
- TRB
- TUBA
- Glock
- PERC1,2 vibr
- PF
- HARP
- VL1
- VL2
- VA
- VC
- CB
- TAPE (DMP7:2)

The score includes various musical notations such as notes, rests, and dynamic markings (e.g., *f*, *mf*, *p*). There are also handwritten annotations and markings throughout the score, including:

- con fuoco* (sempre ϕ)
- f poss.*
- gliss*
- R* (sempre *f poss.*)
- s* (sempre *f poss.*)
- br*
- nt*
- tr*
- h*
- lt*
- tr*
- s.v.*
- P*
- mf*
- L.V.*
- près de la table*
- A#*
- A# C# G#*
- N*
- S.P.*
- S.T.*
- S.V.*
- (mf)*
- (con vibr)*
- trans*
- 16va*
- tr*
- DMP7:2*
- 31,5"*
- 44,5"*

At the bottom of the page, there is a handwritten number '3' inside a circle, and a page number '3'.

2C

3

2

5/

24

[illegible]

[illegible]

2

3

4

51

picc FL1

FL2

BASS FL

COR1, 2

TRB

TUBA

crot

PERC1, 2

vibr

celesta

HARP

VL1

VL2

VA

VC

CB

TAPE (DM7:7)

tr

mp

s.v.

mettere la sord. (straight)

8va

(ped)

sempre f poss.

S.P.

S.T.

gliss

mp

mf

N

3

loco

(sounds)

1'59,5"

2'12,5"

— 10 —

5/4

55 56

FL1

FL2

BASS FL

COR1, 2

TRB

TUBA

PERC1, 2

celesta

HARP

VL1

VL2

VA

VC

CB

TAPE (DMP 7:7)

tape solo 3'30"

L.V.

gless

mf

mp

mp

mp

2'12,5"

2'15"

2'30"

2'23"

-11-

(56 cont.)

FL1

FL2

BASS

FL

COR1,2

TRB

TUBA

(tape solo)

PERC1,2

PF

HARP

VL1

VL2

VA

VC

CB

TAPE

(DMP7:
7)

etc.

(♩ = 60) 4 H 58 calmato

57 (10)

FL1

FL2

BASS FL

COR1,2

TRB

TUBA

PERC1,2

PF

HARP

VL1

VL2

VA

VC

CB

TAPE

3'20"

DMP7 ⑧

3'30"

PCM → vl1

-13-

3'38"

Handwritten musical notation and performance instructions:

- BASS FL:** *dolce*, *tr* (trill), *mp* (mezzo-piano).
- VL1:** *SOLO*, *8va espressivo*, *S.P.* (Soprano Part), *mf* (mezzo-forte), *p* (piano), *dolce*, *tr* (trill), *S.P.*.
- VL2:** *molto vibr.* (molto vibrato), *mp* (mezzo-piano), *S.P.*.
- VA:** *molto vibr.*, *mp*, *N* (Natura).
- VC:** *S.V.* (Soprano Voice), *molto vibr.*, *mp*, *S.T.* (Soprano Tenor).
- CB:** *molto vibr.*, *mp*, *S.T.*.
- TAPE:** *16va* (16th octave), *3'30"*.

60

- 14 -

3'49"

5/4 I

63

FL1 inc

FL2 inc

BASS FL

COR1,2

TRB

TUBA

PERC1,2

PF

HARP

VL1

VL2

VA

VC

CB

TAPE

(PCM: VL1)

(PMP: 8)

3'49"

(3 4)

-15-

4

5/4

68

FL1

FL2

BASS FL

COR1, 2

TRB

TUBA

PERC1, 2

celesta

poco furioso sempre legatissimo

SOLO

(ped.) f

HARP

VL1

VL2

VA

VC

CB

TAPE

PUBLISON → strings

PCM → celesta

↓ 4' DMP 7 9

3 2 3 4 [J]

FL1 inc
FL2 inc
BASS FL

COR1,2 (con sord.)
TRB (con sord.)
TUBA

PERC1,2

celesta
L.V.
→ -p-f

HARP
E4 F4 B4

VL1
VL2
VA
VC
CB

TAPE (DMP7:9)
(vol:ison:strings)
(PCM: celesta)
4'10,5"

DMP7 (10)

espr. s.v. vibr ord.
espr. s.v. vibr ord.
s.v. mf vibr ord.
mf
senza sord.
senza sord.
S.T. gliss → N (4±) espr. (sul A) f
S.T. → N espr. (sul D) f
S.T. → N
S.V. gliss (4±) S.V. → ord. f
S.T. S.V. gliss → N S.V. → ord. f

-17-

4'22,5"

[illegible]

4 ⁵ K $\text{♩} = 75$ dolce

3

4

84 S.V. (vibrord.)

FL1 inc C mp

FL2 S.V. inc C mp

BASS FL tr mf

COR1,2 I + 7 + + +

TRB → senza sord.

TUBA → senza sord.

Glock mf L.V.

PERC1,2

PF espr. mp mp mp mp

HARP D#FBB mf mp

VL1 S.V. gliss → S.P.

VL2 S.V. S.T. → N → S.T. S.V. N mp

VA N S.V. → S.P. S.V. → con vibr.

VC S.V. S.P. gliss → S.T. con vibr.

CB S.V. N gliss → S.T. con vibr.

TAPE (DMP7: 10) 4'47'5"

-20-

4'59,5"

2 3 4 7/8

88

FL1 inc (mf) P gliss mf

FL2 inc gliss mf gliss mf

BASS FL tr mf

COR1,2 mp

TRB (senza sord.) mf

TUBA (senza sord.) mf

Glock mf

PERC1,2 vibr (ped) p mf

PF mp mf

HARP espr. mp mf

VL1 (S.P.) N S.T. mf

VL2 molto N vibr. (suld) p gliss mf S.T.

VA S.P. molto vibr. S.T.

VC N molto vibr. S.T. mf

CB (S.T.)

PUBLISON → fl 2, bass fl, strings

TAPE (DMP7: 10) 4'59,5"

DMP7 (11)

— 21 —

5'09,5"

3
2

L

4 $\text{♩} = \text{♩}$ (♩=60)

FL1 inc

FL2 inc

BASS FL

COR1,2 (mf)

TRB (mf)

TUBA (mf)

glock (sempre mf)

PERC1,2 vibr (sempre mf)

PF (sempre mf)

HARP (sempre mf)

VL1 S.T. mf

VL2 S.T. mf

VA S.T. very slow bow mf

VC S.P. very slow bow f

CB S.P. very slow bow f

TAPE (DMP7: 11) (PUBLISON: fl2, bass fl, strings)

5'09,5"

5'16" (5'15,9")

5'20"

- 22 -

3
4
3

legatissimo, calmato

96

SOLO

gliss

FL1 inc

FL2 inc

BASS FL

COR1,2

TRB

TUBA

PERC1,2

celesta

HARP

VL1

VL2

VA

VC

CB

TAPE

(PUBLISON: fl 2, bass fl, strings)

(DMP7: 11) 5'20"

PUBLISON → strings

DMP7 (12)

5'33"

-23-

Handwritten musical score for orchestra and tape. The score includes parts for Piccolo Flute 1 (picc FL1), Flute 2 in C (FL2 inc), Bass Flute (BASS FL), Cor Anglais 1 & 2 (COR1, 2), Trumpet B (TRB), Tuba (TUBA), Glockenspiel (Glock PERC1, 2 vibr), Celesta, Harp (HARP), Violin 1 (VL1), Violin 2 (VL2), Viola (VA), Violoncello (VC), Contrabass (CB), and Tape.

The score features various musical notations including dynamics (mf, mp, f, p), articulation (accents, slurs), and performance instructions such as "mettere sord." (mute) and "sempre simile (legatissimo)".

A box at the bottom right contains the instruction: "stop the tape and wind the tape on to next start".

At the very bottom, there are handwritten notes: "DMP7 (13)", "* keep the keys pressed down always as long as possible", and the page number "-25-". A time signature "5'44.3''" is also present.

3

2

113

pice FL1 *mp*

FL2 *mp*

BASS FL *mp*

COR1,2

TRB

TUBA

Glock

PERC1,2 vibr

celesta *f pass* *mf*

HARP

VL1 *N* *S.T.* *dolce, leggiero* *mp*

VL2 *S.P.* *mp*

VA *S.T.* *dolce* *mp*

VC *S.P.* *mp* *S.P.* *mp* *Sempre S.P. dolce* *gliss* *mp* *(S.P.)* *gliss* *mp* *(S.P.)* *gliss* *mp* *(S.P.)* *gliss* *mp*

CB *S.T.* *(mp)* *S.P.* *gliss* *P*

(DMP7: 13) (5'54")

(6'02")

118

pochiss. rit. $\frac{3}{4}$ = ♩ (60) 2 3 sostenuto (♩ = ~54)

FL1 dolce tr. $\frac{3}{4}$ = ♩ (60) FL2 $\frac{3}{4}$ = ♩ (60) BASS FL $\frac{3}{4}$ = ♩ (60)

COR1, 2 TRB TUBA

glock PERC1, 2 vibr celesta

HARP C# D4 Eb

VL1 VL2 VA VC CB

TAPE PUBLISON → Strings (PCM: celesta) (DMP7:13)

start the tape

6'04" 6'07" 6'15"

-27-

2

123

Handwritten musical score for a large ensemble, featuring various instruments and vocal parts. The score is written on multiple staves, with measures numbered 123 and 124. The instruments listed on the left include:

- picc FL1
- FL2 inc
- BASS FL
- COR1,2
- TRB
- TUBA
- maracas
- PERC1,2
- gongs
- PF
- HARP
- VL1
- VL2
- VA
- VC
- CB
- TAPE

Key performance instructions and markings include:

- vibr.* (vibrato)
- molto vibr.* (much vibrato)
- S.V.* (Soprano Voice)
- gliss* (glissando)
- pp* (pianissimo)
- mp* (mezzo-piano)
- mf* (mezzo-forte)
- sempre* (always)
- con sord.* (with mutes)
- L.V.* (Left Voice)
- S.P.* (Soprano Part)
- S.T.* (Soprano Tenor)
- N* (Note)
- P* (Piano)
- etc.* (et cetera)

At the bottom of the page, there is a handwritten note: "DMP7: (PUBLISON: strings) 13) 6'15"

3

2

129

molto vibr.

S.V.

molto vibr.

pice

FL1

FL2

BASS

FL

(S.V.)

COR1,2

TRB

TUBA

(con sord.)

pp

maracas

PERC1,2

gongs

sandpaper

blocks

3

mp

L.V.

mp

PF

(ped.)

L.V.

HARP

(mf)

mf

mp

VL1

S.P.

S.P.

S.T.

molto vibr.

(sempre p)

S.T.

VL2

gliss

(sempre p)

molto vibr

S.P.

S.T.

molto vibr.

(sul A)

VA

(sempre p)

S.T.

gliss

(sul A)

(sul E)

VC

molto vibr.

S.P.

S.V.

S.T.

CB

N

S.V.

S.T.

S.P.

(p)

gliss

p

stop the tape
wind on
to next start

TAPE

(DMP7: 13)

8va

(PUBLISON: strings)

6'28"

-29-

(6'39")

[illegible]

2
3
4
3/4
4
P

picc FL1 139 *very evenly*

alto FL2 *(mp) 4:3* *molto vibr.*

BASS FL *very evenly*

COR1,2

TRB

TUBA

Glock *(marimba)*

PERC1,2 *very evenly*

xyl *very evenly*

FF *very evenly*

HARP *F# Ab*

VL1 *molto vibr.*

VL2 *8va very evenly*

VA

VC

CB

TAPE *(DMP 7; 14)*

6'52.5"

-31-

7'03"

7'07"

4

2

3

 $2R$

149

tr

leggiere, calmo

Picc FL1

Alto FL2

mf

tr

BASS FL

mf

COR1, 2

TRB

TUBA

Glock

PERC1, 2

vibr

mf

12

12

12

12

12

12

12

12

f

marimba

xylophone

PF

mf

9

9

9

9

9

9

9

9

f

mp

(ped.)

HARP

L.V.

L.V.

VL1

mf

9

9

N

tr

S.T.

gliss

leggiere, calmo

VL2

mp

S.T.

gliss

leggiere, calmo

VA

mp

S.T.

leggiere, calmo

VC

mp

S.T.

gliss

P

f

P

CB

(mp)

TAPE

(DMP7: 14)

7'18"

7'20"

7'29"

7'31"

-33-

3

2

3

154

154

picc
FL1

alto
FL2
in G

BASS
FL

COR1,2

TRB

TUBA

mar

PERC1,2

xyl

PF

HARP

VL1

VL2

VA

VC

CB

TAPE

(DMP7;
14)

7:31"

-34-

7:44"

S

3/4 = 120 energico

159

3/4

3/4

3/4

2/4

3/4

pica

FL1

alto

FL2

fl ing

BASS

FL

COR1,2

TRB

TUBA

mar

PERC1,2

xyl

PF

HARP

VL1

VL2

VA

VC

CB

TAPE

(DMP7:

14)

Handwritten musical score for a large ensemble, featuring various instruments and dynamic markings. The score is divided into measures, with time signatures (4/4, 3/4, 2/4) and dynamic markings (ff, f, mp, mf, p) indicating volume and intensity.

Instrumentation:

- picc FL1
- alto FL2
- in G
- BASS FL
- COR1,2
- TRB
- TUBA
- mar
- RC1,2
- xylo
- PF
- HARP
- VL1
- VL2
- VA
- VC
- CB
- TAPE (DMP7: 14)

Handwritten Annotations:

- 4/4, 3/4, 4/4, 2/4, 3/4, 3/4, 3/4
- ff, f, mp, mf, p
- L.V.
- (growing cluster)
- 7'49,8"
- 7'55,5"
- (7'55,4966")

Handwritten musical score for a symphony orchestra, featuring various instruments and vocal parts. The score is written on multiple staves, including Piccolo (picc), Flute 1 (FL1), Flute 2 (FL2), Bass Flute (BASS FL), Cori (COR1, 2), Trumpets (TRB), Tuba (TUBA), Maracas (mar), Percussion 1 & 2 (PERC1, 2), xylophone (xyl), Piano (PF), Harp (HARP), Violin 1 (VL1), Violin 2 (VL2), Viola (VA), Violoncello (VC), Contrabass (CB), and Tape (TAPE). The score includes dynamic markings (mf, f, ff, mp, sf), articulation (gliss, tr, etc.), and performance instructions (e.g., "energico, con fuoco", "f poss. (sempre)", "use much bow 1)", "1) bow changes always imperceptible and separately"). The score is divided into measures, with some measures marked with "Solo" or "voice". The score is written in 3/4 time, with a tempo marking of "F = 120 (♩=60)". The score is numbered 179 at the top left and 15 at the bottom center. The score is written in black ink on white paper.

Handwritten musical score for a symphony orchestra, featuring staves for Piccolo Flute 1 (picc FL1), Flute 2 (FL2), Bass Flute (BASS FL), Cori (CORI), Trumpets (TRB), Tubas (TUBA), Glockenspiel (Glock), Percussion 1 & 2 (PERC 1, 2), Celesta, Harp (HARP), Violins 1 & 2 (VL1, VL2), Viola (VA), Violoncello (VC), Contrabass (CB), and Tape (TAPE). The score includes various musical notations such as notes, rests, trills (tr), glissandos (gliss), and dynamic markings (mp, mf, f, pp). Performance instructions like "dolce", "very evenly", and "f poss." are present. A large bracket labeled "U" spans the top of the score. The bottom of the page features a large number "38" and a time signature "8'20".

195

8'39"

200

200

pic FL1

FL2 inc

BASS FL

COR1,2

TRB

TUBA

Glock

PERC1,2

crot

celesta

HARP

VL1

VL2

VA

VC

CB

TAPE

16ra

PCM: FL1

PUBLISON: strings

8'39"

8'51"

41

W

$\text{♩} = \text{♩} (\text{♩} = 90)$

206

picc
FL1

FL2
in C

BASS
FL

COR1,2

TRB

TUBA

mar

PERC1,2

vibr

celesta

HARP

VL1

VL2

VA

VC

CB

TAPE

(DMP7: 17)

(PUBLISON: strings)

8'51"

8'53"

DMP7 (18)

2

9'12"

Y

poco rubato
(♩ = ~56)

dolce,
espr.

10

12

mp

217

picc
FL1

FL2
inc

BASS
FL

COR1,2

TRB

TUBA

PERC1,2
vibr

PF

HARP

VL1

VL2

VA

VC

CB

TAPE
(DMP 7:
18)

Stop the tape
wind on
to next start

- 44 -

9'12"

(9'22")

222

- 45 -

DMP7 (19)

(9'32")

2

9'44,5"

3/4

232

FL1

FL2

BASS FL

COR1,2

TRB

TUBA

PERC1,2

PF

HARP

VL1

VL2

VA

VC

CB

(PCM: strings)

TAPE (DMF 19)

9'44,5"

9'56"

-47-

AA

2 sostenuto, molto calmo 5/8

2 3/8

FL1 inc 8va mp

FL2 inc mp

BASS FL mp

COR1,2 P

TRB P

TUBA P

Glock mp

PERC1,2 nbr mp (ped)

PF

HARP tr mf

VL1 S.P. Very Slow S.V. (N) S.V. mp

VL2 S.P. Very Slow S.V. (N) S.V. mp

VA S.P. Very Slow S.V. (N) S.V. mp

VC S.P. Very Slow S.V. (N) S.V. mp

CB S.P. S.V. (N) S.V. mp

TAPE stop the tape wind on to next start

DMP7 (20) 956"

3

4

start the tape

49—

10'21"

248

FL1

FL2

BASS FL

COR1,2

TRB

TUBA

PERC1,2
timp

PF

HARP

VL1

VL2

VA

VC

CB

TAPE
(DMP 7:20)

10'21"

10'41"

— 50 —

Handwritten musical notation and performance instructions:

- FL1: Trill (tr) with *mp* dynamic.
- FL2: Trill (tr) with *mp* dynamic.
- VA: Trill (tr) with *mp* dynamic.
- VC: Trill (tr) with *mp* dynamic.
- VL1: Trill (tr) with *mp* dynamic. Includes instruction: "(gliss. concerns only the upper note of the trill)".
- VL2: Trill (tr) with *mp* dynamic. Includes instruction: "(gliss. concerns only the upper note of the trill)".
- VA: Trill (tr) with *mp* dynamic. Includes instruction: "(gliss. concerns only the lower note of the trill, the upper remains d.)".
- VC: Trill (tr) with *mp* dynamic.
- PERC1,2: Timpani part with *p* dynamic.
- PF: Piano part with *l.v.* (left hand) and *p* dynamic.
- TRB: Trumpet part with *pp* dynamic.
- TUBA: Tuba part with *pp* dynamic.
- HARP: Harp part with *pp* dynamic.
- TAPE: Tape part with *pp* dynamic.

2

5

253

FL1

FL2

BASS FL

COR1,2

TRB

TUBA

gongs

PERC1,2

timp

PF

HARP

VL1

VL2

VA

VC

CB

TAPE

mp

L.V.

tubular bells

vibr (motor off)

tape solo

S.P.

(sul G)

gliss

(sul D)

(sul G)

f

S.P.

(sul D)

gliss

(sul G)

f

S.P.

(sul D)

gliss

(sul G)

f

S.P.

gliss

f

PUBLISON: strings

DMP7 (21)

10'41"

10'51"

10'56"

10

12

14

10

2 CC

3

1

2

257

FL1
in C

FL2
in C

BASS
FL

COR1, 2

TRB

TUBA

tub. bells

PERC1, 2
vibr

PF

HARP

VL1

VL2

VA

VC

CB

TAPE
(DMP 7: 21)

PUBLISON: strings

10'56"

11'06"

11'08"

3

—53—

11'19"

268

2

EE

FL1 inc *mf*

FL2 inc *mf*

BASS FL *f*

COR1,2 *mf*

TRB *mf*

TUBA *mf*

Xyl *f*

PERC1,2 tim *mf* L.V. *f* (ped.)

PF *tape solo* *vibraphone*

HARP (S.T.)

VL1 *mf* (S.T.)

VL2 *mf* (S.T.)

VA (S.T.) *mf*

VC (S.T.) *mf*

CB *mf*

TAPE (DMP: 21) (PUBLISON: strings) 11'19"

PUBLISON: strings 11'30"

-54-

FF

273

FL1 in C voice *f* *s* → alto flute in G

FL2 in C voice *f* *s* → alto flute in G

BASS FL voice *f*

COR1,2

TRB

TUBA

Xyl PERC1,2 *f* *L.V.* → Gong. → Glockenspiel

Vibr *f* *L.V.*

PF *f* *L.V.* *P* *tape solo*

HARP (S.T.)

VL1 *f* (S.T.)

VL2 *f* (S.T.)

VA *f* (S.T.)

VC *f* (S.T.)

CB *f* (S.T.)

TAPE (DMP7: 21) (PUBLISON: strings) 11'30"

55 -

PUBLISON flutes, strings DMP7 (22) 11'42"

8va

f *poss.* *h* *f* *h* *R 2* *tr* *rs* *v3*

3

279

281

alto
FL1
in G
alto
FL2
in G

BASS
FL

COR1, 2

TRB

TUBA

Glock

PERC1, 2

vibr

large
suspended
cymbal

PF

HARP

VL1

VL2

VA

VC

CB

TAPE
(DMP 7:
22)

(PUBLISON:
flutes, strings)

→ flute in C

mettere
Sord.

tape solo

15'

11'42"

11'45"

-56-

281 cont.

FL1

FL2

BASS

FL

COR1,2

TRB

TUBA

PERC1,2

(tape solo)

PF

HARP

VL1

VL2

VA

VC

CB

TAPE

(DMP7:
22)

GG

4 rubato, molto calmo

3 $\text{♩} = \sim 40$

dolce, leggiero
Subito $\text{♩} = \sim 120$

Handwritten musical score for a large ensemble, featuring staves for various instruments and vocal parts. The score is divided into three measures, each with a tempo change indicated by a large number (4, 3, 2) and a tempo marking (rubato, molto calmo; dolce, leggiero; Subito $\text{♩} = \sim 120$).

Instrumental Parts:

- FL1 inc alto FL2 inc**: Flute 1 (inc), Flute 2 (inc)
- BASS FL**: Bass Flute
- COR1,2**: Cor Anglais 1 and 2
- TRB**: Trumpet B
- TUBA**: Tuba
- Glock**: Glockenspiel
- PERC1,2 vibr**: Percussion 1 and 2 (vibrato)
- PF**: Piano
- HARP**: Harp
- VL1, VL2**: Violin 1 and 2
- VA**: Viola
- VC**: Violoncello
- CB**: Contrabasso
- TAPE**: Tape recording

Performance Instructions and Markings:

- Tempo Changes:** 4 rubato, molto calmo; 3 $\text{♩} = \sim 40$; 2 dolce, leggiero; Subito $\text{♩} = \sim 120$.
- Dynamic Markings:** *pp* (pianissimo), *p* (piano), *mf* (mezzo-forte), *mp* (mezzo-piano), *f* (forte).
- Articulation and Expression:** *molto vibr* (molto vibrato), *gliss* (glissando), *tr* (trill), *con sord.* (con sordina).
- Other Markings:** *S.V.* (Sordina), *S.T.* (Sordina), *mp* (mezzo-piano), *pp* (pianissimo), *f* (forte).
- Rehearsal Markers:** $\sim 14'36''$, $\sim 14'42''$, $\sim 14'47''$, $\sim 14'52''$.
- Page Number:** 58
- Page Footer:** DMF7 (23), stop the tape

5/4

2

4 ♩ = ~40

HH

poco rit.---

sostenuto

286

molto vibr

FL1 *p* *mp*

alto FL2 *piccolo*

W G

BASS FL *molto vibr* *p*

COR1,2 (con sord.) I *mp*

TRB

TUBA

Glock *mp* *L.V.* *tubular bells* *mp* *L.V.* *crotales* *L.V.*

PERC1,2 *mp* *L.V.* *mp* *L.V.* *mp* *L.V.*

vibr *mp* (ped) *mp* *L.V.*

PF *mp* *mp* *L.V.*

mp (ped) *L.V.*

HARP *mp* *L.V.*

VL1 (S.P.) (S.V.) *N* *mp* *N* *mp* *S.P.*

VL2 (S.P.) (S.V.) *N* *mp* *N* *mp* *S.P.*

VA (S.P.) (S.V.) *N* *mp* *N* *mp* *S.P.*

VC (S.P.) (S.V.) *N* *mp* *N* *mp* *S.P.*

CB *S.P.* *S.V.* *molto vibr* *S.T.* *N* *mp* *S.P.*

291

3/4

2

subito

$\text{♩} \approx 80$, leggiero

tr.

adce

adce

(con sord.)

(con sord.)

(con sord.)

L.V.

S.P.

S.P.

mp

mp

mp

(S.P.)

mp

(DMP 7:23)

3 $\downarrow = \sim 60$

.. 3/4 4 J = ~40 II

3 $\downarrow = \sim 60$

DMP7 (24)

DMP7 (25)

2 5/4 2 3

302

FL1
Sempre p
gliss (b2) gliss (H2) gliss gliss (H2) gliss (H2)

FL2
picc
Sempre p
gliss gliss gliss gliss gliss gliss

BASS
FL
Sempre p
gliss gliss gliss gliss gliss gliss

COR1,2
→ senza sord.
→ senza sord.
→ senza sord.

TRB
→ senza sord.

TUBA
→ senza sord.

tub.
bells
crot
PERC1,2
Sempre p (sempre L.V.)
Sempre p L.V.
Sempre p L.V.
Sempre p L.V.
Sempre p L.V.
Sempre p L.V.
Sempre p L.V.
Sempre p L.V.
Sempre p L.V.

PF
(ped.) pp

HARP
A4

VL1
(s.p.)
pp

VL2
(s.p.)
pp

VA
(s.p.)
pp

VC
(s.p.)
pp

CB
(s.p.)
pp

(PCM: flutes)

(DMP7:25)

Handwritten musical score for a symphony orchestra. The score is divided into measures by vertical bar lines. Above the first measure, the number "2" is written. Above the second measure, the number "4" is written, followed by a box containing "JJ". Above the third measure, the number "2" is written. Above the fourth measure, the number "3" is written.

The instruments and parts are listed on the left side of the score:

- FL1 in C
- FL2 picc
- BASS FL
- COR1, 2
- TRB
- TUBA
- tub. bells
- crot
- PERC1, 2
- vibr
- PF
- HARP
- VL1
- VL2
- VA
- VC
- CB

Dynamic markings (p, mp, mf) are present throughout the score. Some parts have handwritten notes like "alto flute in G" and "alto fl in G". The PF part has a wavy line with the note "(sempre ped.)". The CB part has a note "S.P.". The bottom of the score has a box containing "PUBLISON -> strings".

