

M e l t i n t o i t

S a m L o n g b o t t o m

q u a r t e t & t a p e

2022

instrumentation

flute
clarinet in Bb
alto saxophone
bassoon

2 tape parts played through two separate pairs of stereo speakers (see below for more details)

general

All instrumental parts are doubled in tape 1 (see score). The ensemble and tape should sound as one.

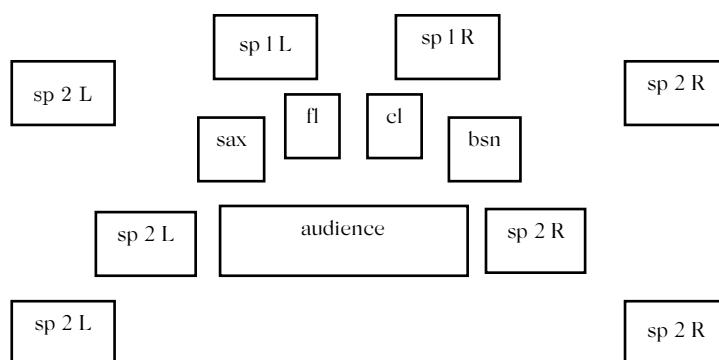
Tape 2 (not notated in the score) is independent of the ensemble and slowly fades in throughout the piece. By the end of the piece, it should completely bury the ensemble and tape 1.

The bassoon, saxophone, and tape 1 (and clarinet in the latter part of the piece) should sound as one, blending as much as possible together, think of the sound of an organ, attacks should be soft, with no emphasis at the beginnings of notes or diminuendo at the end of notes.

The flute and clarinet should be buried lightly under the saxophone and bassoon parts. The flute and clarinet play an octave apart, the instrument that is on top should be quieter than the lower one. A few instances of phrasing have been given, but otherwise it is left open to the performers interpretation.

Regarding the overall dynamic level of the piece: the music should be as loud as is possible without *sounding* loud, that is, as loud as is possible with the timbre of quiet playing. The tape part, being fixed, has an overall timbre that sounds quiet, but can be played as loud as the speakers can go. Together, the ensemble and tape should sound like quiet music turned up loud.

set up



The ensemble should be set up on stage similarly to the diagram above.

The amplification for tape 1 should be on stage, from within or slightly behind the performers to enable the ensemble and tape to emerge from one spacial location.

The distribution of the ensemble corresponds to the panning of each instrument's doubling in the tape part (i.e., sax positioned on the left is doubled by a tape part panned to the left).

Tape 2, which is not notated in the score, plays through a pair of speakers that are placed away from the ensemble. The ideal amplification is one in which an array of speakers are distributed through the seating area (more than one per stereo channel), surrounding the audience, and allowing them to be completely submerged in the sound from tape 2. However, where this is not possible, a stereo pair will do, placed at either side of the audience; behind the audience; widely spaced on stage compared to the ensemble; etc. (placements for the second set of speakers are shown in the diagram above).

intonation

The piece is tuned in just intonation. Pitches are notated using HEJI accidentals. Full explanation of accidentals can be found here: https://marsbat.space/pdfs/HEJI2_legend+series.pdf

Accidentals used:

♭ = aprox. -30 cents

♮ = aprox. +30 cents

♯ = aprox. +60 cents

Aggregate of pitches used in the piece and which member of the ensemble plays which pitch:

The image shows a musical score with five staves, each representing a different instrument. Above each staff is a series of numerical offsets for each pitch. The instruments and their corresponding offsets are:

- scale:** +0, B-32, +4, +31, -33, C#-29, +8, +35, -2, +39, +2, F#-30, +33, -31, G#-26, +37, -27
- flute:** +0, +4, -33, +35, -2, +39, +2, +33
- clarinet in Bb:** +0, +4, +31, -33, +35, -2, +2, +33
- alto saxophone:** +0, B-32, +4, -33, +8, +35, -2, +39, +2, F#-30, +33, +37
- bassoon:** +0, +4, -33, +35, -2, +39, +2, F#-30, +33, -31, G#-26, +37, -27

Following is a more in depth explanation of the tuning of the piece:

The tuning of each pitch corresponds to an interval from the harmonic series. There are several interconnected harmonic series' used in the piece where a harmonic from one may become a different harmonic of another. The notation used aims to inform the performer of the harmonic relationship of each pitch and specifies its exact intonation.

This piece of music is in a subset of just intonation known as septimal tuning, this is where all the pitches are related to the seventh harmonic. This tuning is distinct from the more common way of tuning in western music as major thirds are raised, rather than lowered; minor thirds are lowered, rather than raised; similarly, major sixths are raised, rather than lowered; and minor sixths are lowered, rather than raised.

In order to explain a little more, below are two sets of harmonic series: the first is a harmonic series on A, the second is a harmonic series on B \flat , where the 7th harmonic is the A from the first example.

The image shows two musical staves, each representing a harmonic series. The first staff is for A and the second is for B \flat . Each staff has 16 notes with numerical offsets above them. The offsets for the A series are: +0, +0, +2, +0, -14, +2, -31, +0, +4, -14, D#-49, +2, F+40, -31, -12, +0. The offsets for the B \flat series are: +31, +31, +33, +31, +18, +33, +0, +31, +35, +18, F-18, +33, G#-28, +0, +19, +31.

It's possible to view the septimal intervals used in the piece through the above example: the narrow minor third is the interval between harmonics 7 and 6; the wide major second is the interval between harmonics 8 and 7; the wide major third is the interval between harmonics 9 and 7; the wide major sixth is the interval between harmonics 12 and 7 (the inversion of the narrow minor third); the narrow minor sixth is the interval between harmonics 14 and 9 (inversion of wide major third); and so on.

Melt into it

S a m L o n g b o t t o m

lethargic, idle, loose, as if improvised, just about holding together

♩ = 80

flute

clarinet in Bb

alto saxophone

bassoon

tape

$\text{♩} = 80$

diffuse, with noise; non vib. +35

with a pure, filtered tone; non vib. +35

pp blended with tape, buried underneath sax & bsn. above cl

pppp nearly inaudible

non vib. F#-30

p blended with tape

non vib. +37

p blended with tape

p each note in bottom staff extends 4 beats after duration noted

5

fl.

cl. in Bb

a. sax.

bsn

tp.

3

3

3

8

fl.

cl. in Bb

a. sax.

bsn

tp.

12

fl.

cl. in Bb

a. sax.

bsn

tp.

15

[illegible]

fl. 30

cl. in B \flat +35

a. sax.

bsn

tp.

fl. 34

cl. in B \flat

a. sax. F#-30

bsn +35 +37

tp.

6

B

38

fl.

+35

cl. in B♭

+33

+35

+35

+35

a. sax.

bsn

+33

tp.

42

fl.

+35

+33

+35

+35

+31

-33

cl. in B♭

+35

+33

+35

+35

a. sax.

bsn

tp.

46

fl.

cl. in B \flat

a. sax.

bsn

tp.

Trills: +35, +35, +35, +35, -33, +37

Triplet: 3

Piano: *p*

50

fl.

cl. in B \flat

a. sax.

bsn

tp.

Trills: +35, +33, +35, +39

Triplet: 3, 3

[illegible]

60 **C**

fl. +35 somewhat diffuse, with noise +35 +33 -33 +35
3 *pp* above *cl*

cl. in B \flat +35 with a pure, filtered tone +35 +35 -33 +35
ppp below *fl* 3

a. sax.

bsn +37

tp. duration as written 3 3 3

64 +35 +35 +35

fl. *p* 3

cl. in B \flat -33 +35 +35 -33 +35 +35
3

a. sax.

bsn +33

tp. 3 3 3

[illegible]

72

fl.

cl. in B \flat

a. sax.

bsn.

tp.

-33 +35

+35

+37

F#-30

3

3

75 +35 +35

fl.

cl. in B♭

a. sax.

bsn

tp.

78 **D** +35 +31 +35

cl. in B♭

a. sax.

bsn

tp.

p with sax & bsn

85 (+4) +35

cl. in B♭

a. sax.

bsn

tp.

F#-30

+37

E

92

cl. in B \flat

+35

+31

+35

+31

mp (*non cesc.*)

a. sax.

+35

mp (*non cesc.*)

bsn

+33

mp (*non cesc.*)

tp.

mp

99

cl. in B \flat

+35

+35

+37

F \sharp -30

a. sax.

bsn

tp.

F

106

cl. in B \flat

+35

+39

+37

G \sharp -26

a. sax.

bsn

tp.

113

cl. in B \flat

a. sax.

bsn

tp.

114

115

116

117

118

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120

cl. in Bb

a. sax.

bsn

tp.

+35

-31

+33

The image shows a musical score for measures 120-124. The instruments are Clarinet in Bb, Alto Saxophone, Baritone Saxophone, and Trumpet. The key signature is one flat (Bb). The tempo is marked 'mod.' (moderato). The score includes various musical notations such as notes, rests, and dynamic markings. A large bracket on the left side of the score indicates a section starting at measure 120. A vertical line separates measures 120-124 from measures 125-129. The measure numbers 120, 125, and 129 are written at the top of the score. The instrument names are written to the left of their respective staves. The tempo marking 'mod.' is written below the trumpet staff. The key signature is indicated by a flat symbol on the B line of the first staff. The score includes various musical notations such as notes, rests, and dynamic markings. A large bracket on the left side of the score indicates a section starting at measure 120. A vertical line separates measures 120-124 from measures 125-129. The measure numbers 120, 125, and 129 are written at the top of the score. The instrument names are written to the left of their respective staves. The tempo marking 'mod.' is written below the trumpet staff. The key signature is indicated by a flat symbol on the B line of the first staff. The score includes various musical notations such as notes, rests, and dynamic markings.

127

cl. in B \flat

+31

a. sax.

+35

bsn

tp.