

# Fata Morgana

Timothy Cooper

for Clarinet Quartet (3 Bb clarinets and 1 Bass Clarinet) and tape

## Programme Note:

The image you see and hear is always changing. The clarinets, both real and recorded, come in and out of focus in a fluid and illusory way. As the image dissolves, like a mirage, the real clarinets may appear closer or more distant than they actually are. As they melt and mix together the materials they carry are re-imagined creating new perspectives that whilst different, retain the same character and essence throughout. You can never be quite sure that what appears to be on the horizon is really even there.

'Fata Morgana' are unusually vivid, and complex mirages named after the Arthurian Sorceress Morgan La Fey. In my Fata Morgana the illusions are subtle; they are not grand tricks like a Houdini escape.

Fata Morgana was written for and dedicated to the Cameo Clarinet Quartet. I would like to thank them for the huge amount of work that they invested in the development of the piece. I would particularly like to thank Jenny Stephenson who worked with me from the outset recording materials for the tape and trying out the very earliest sketches.

## Notes to the score for the players:

The score is mostly notated proportionally. The “ticks” above the stave are used to represent various lengths of time which are made clear in the score at each moment. During the second half of the piece parts of the piece are notated metrically as I needed to access gestures and ways of phrasing rhythmically that are best represented metrically.

In proportionally notated sections each note lasts as long as its beam in relation to the timeline. Where the beams are completely joined from one note to another these should be played without a break.

Grace notes should be played as fast as possible. Mostly the style should still be quite light and bubbly to match the same kind of energy in the tape part. In this piece the grace notes are still represented in the rough proportion I expect them to same. The gestures should usually be active either side of any cadence they match in the tape.

In metrically notated sections the quartet can use the click provided. It is preferable that they do not. The “traffic lights” should aid synchronisation. Visual cues are notated in the tape stave above the clarinet parts.

Accelerating and decelerating trills are used in the piece. There are represented by the following two images:

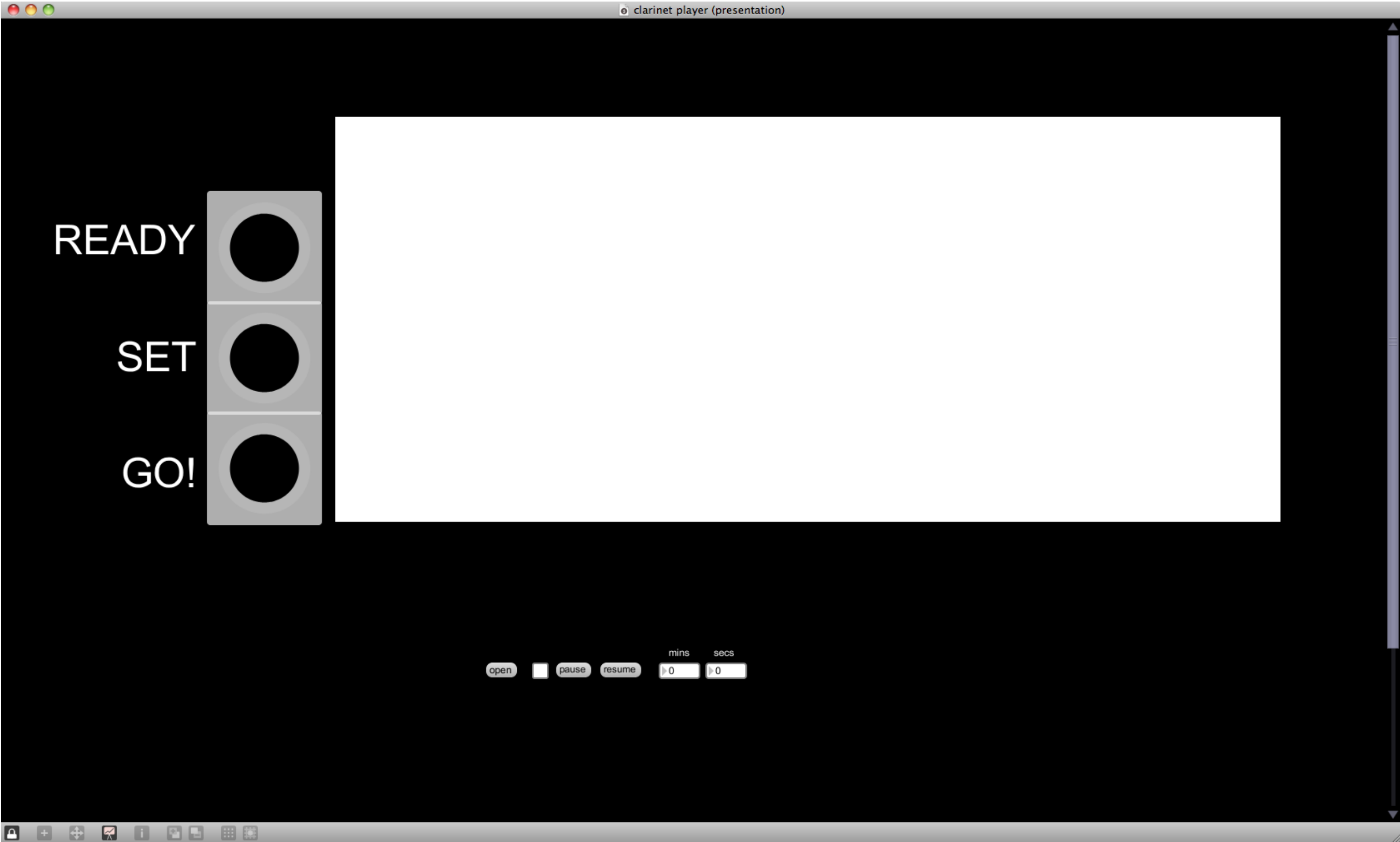
The trills should continue till the arrow head meets the vertical line.

When a speed is not specified the trills should be very fast and very light. In these contexts the trills are a colouring and thickening of the clarinet sound.

Flattement is a finger vibrato. It is made by partly covering an open hole or slightly opening a hole that is covered.

When the tape is triggered the Green light will flash for go, the counter will also begin.

When you open the patch (called clarinet player.maxpat) this screen will appear:



## **Notes to the score for the sound projectionist:**

### **Requirements:**

**Computer** running MAX/msp/jitter 5 (a free runtime version of MAX/Msp /jitter is available from <http://www.cycling74.com/downloads> accessed 13/5/2012) a minimum of a 2.2 GHz processor and 2GB of RAM is recommended.

**Audio Interface** (eg. RME Fireface 800) with 3 outputs.

**Additional Monitors** it is recommended that the quartet have two monitors which are connected to the computer at the desk. This will allow them all to clearly see the display carrying the timecode and the “traffic light” signal

**Mixing desk** with a minimum of 4 microphone inputs, 3 line inputs and 2 outputs (if using more than 2 speakers further outputs will be required in order to balance the levels between the speakers). Depending on the preference of the players and the nature of the acoustic and speaker positioning they may need fold-back monitors carrying the tape part. If the players require the click for synchronisation during the metrically notated sections this should be sent to a headphone amplifier and then to, ideally, in ear monitors or single sided headphones. In this case it may help to send the tape part to the headphones.

**4 high quality condenser microphones** the microphones should be positioned directed at the middle of the clarinet to capture the overall sound of each instrument. They should then be panned to create a convincing stereo image. Additional microphones may be used, where necessary, to maximise the potential amplified levels. The balance between the amplified clarinets and tape should allow the players to balance themselves so that they can be above or below the level of the tape where appropriate.


**2 high-quality loudspeakers** (eg. Genelec 1032a) placed either side of the performer, just above ear height, with the performers around 3 feet behind them (this should help reduce the chances of feedback).

The projectionist should feel free to experiment with equalising the channels carrying the prerecorded audio cues with the same EQ they use to tune the clarinet microphones. In doing this you should look for a cleaner more precise sound. If it is not proving better then don't eq the tape channels.

In certain concert situations it may be possible, and advantageous, to use further pairs of speakers to project the sound. For this piece the amplification should be sent only to speakers at the fronts of the stage (amplification to speakers 1 and 2). The tape part can be sent to any loudspeakers on stage (speakers 1, 2, 3 ,4, 5 and 6). Speakers behind the audience should never be used. The tape part should be diffused. Side and rear speakers can be used but should only be very carefully added. The image should always be principally frontal.

To start the patch scroll down where the audio information is displayed. Select the correct driver and then turn on the audio. If the audio is on the speaker image will turn this orange. Otherwise it will be a light blue. You should then click open, then navigate to where the tape part is saved. The tape is then ready to be initialised. To start the tape press the spacebar.

As the players move through the piece the “traffic lights show major changes of section (marked in the score). This should aid in the synchronisation with the fixed tape. The cues are automatically made and do not require intervention from the projectionist.

 CoreAudio Digidesign Mb..

CPU

%

Max Sched. in o/d

On

Sched. in Audio Int

Off

I/O Vector

1024

Signal Vector

1024

open a soundfile  
press space to start and stop,  
P to pause, then R to resume;  
set minutes & seconds to resume



# Fata Morgana

Timothy Cooper

♩ = 60

dark, close sounding, clarinets alone

tr slow → fast

tr fast → slow

tr slow

Clarinet 1 in B♭

pp

mp

pp

Clarinet 2 in B♭

pp

mp

pp

Clarinet 3 in B♭

pp

mp

pp

Bass Clarinet in B♭

pp

mp

mp

pp

broader sounding

fast → slow

broader sounding

fast → slow

broader sounding

fast → slow

broader sounding

fast → slow

intimate

tr slow

intimate

slow → fast

intimate

slow

Cl. 1

mp

ppp

Cl. 2

mp

ppp

Cl. 3

mp

ppp

B. Cl.

mp

ppp

intimate, fade up from nothing, the start of the note doesn't have to be co-ordinated directly

Cl. 1

Cl. 2

Cl. 3

B. Cl.

*mp*

*mp*

*mp*

*mp*

Lead ensemble and sound projectionist

Handwritten musical score for a woodwind ensemble, featuring parts for Tape, Clarinet 1, Clarinet 2, Clarinet 3, and Bass Clarinet. The score is divided into two systems, each with a timeline at the top. The first system spans from 0:00 to 0:30, and the second system spans from 0:30 to 0:56. The score includes dynamic markings (pp, mp, p), articulation (tr), and performance instructions (slow, fast, throbbing, wide and slow).

**System 1 (0:00 - 0:30):**

- Tape:** A long, sustained, textured sound that tapers off towards the end of the system.
- Clarinet 1:** Starts with a "Go" instruction. The part is marked *pp* (pianissimo) and *mp* (mezzo-piano). It includes a trill (tr) marked "tr slow" and a tempo change to "fast" around 0:21, returning to "slow" at 0:25.5.
- Clarinet 2:** Starts with a "Go" instruction. The part is marked *pp* and *mp*. It includes a trill (tr) marked "tr slow" and a tempo change to "fast" around 0:21, returning to "slow" at 0:25.5.
- Clarinet 3:** Starts with a "Go" instruction. The part is marked *pp* and *mp*. It includes a trill (tr) marked "tr slow" and a tempo change to "fast" around 0:21, returning to "slow" at 0:25.5.
- Bass Clarinet:** Starts with a "Go" instruction. The part is marked *pp* and *mp*. It includes a trill (tr) marked "tr slow" and a tempo change to "fast" around 0:21, returning to "slow" at 0:25.5.

**System 2 (0:30 - 0:56):**

- Tape:** A short, sustained, textured sound that tapers off towards the end of the system.
- Clarinet 1:** Starts with a "Go" instruction. The part is marked *pp* and *mp*. It includes a trill (tr) marked "tr slow" and a tempo change to "fast" around 0:37, returning to "slow" at 0:44. The instruction "throbbing, wide and slow" is written below the staff. The part ends with a "Ready" instruction at 0:52.
- Clarinet 2:** Starts with a "Go" instruction. The part is marked *pp* and *mp*. It includes a trill (tr) marked "tr slow" and a tempo change to "fast" around 0:37, returning to "slow" at 0:44. The instruction "throbbing, wide and slow" is written below the staff. The part ends with a "Ready" instruction at 0:52.
- Clarinet 3:** Starts with a "Go" instruction. The part is marked *pp* and *mp*. It includes a trill (tr) marked "tr slow" and a tempo change to "fast" around 0:37, returning to "slow" at 0:44. The instruction "throbbing, wide and slow" is written below the staff. The part ends with a "Ready" instruction at 0:52.
- Bass Clarinet:** Starts with a "Go" instruction. The part is marked *pp* and *mp*. It includes a trill (tr) marked "tr slow" and a tempo change to "fast" around 0:37, returning to "slow" at 0:44. The instruction "throbbing, wide and slow" is written below the staff. The part ends with a "Ready" instruction at 0:52.

0:58 1:05.5 1:08.5 1:10.5 1:14.5 1:18.7 1:28

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

sub tone  
trn

Ready GO

sub tone  
trn

Ready

sub tone  
trn

Very resonant

Ready

1:29 1:32 1:34 1:37.5 1:41.5 1:48.5 1:50

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

trn

trn

trn

1:50

2:01.5

2:02.5

2:03.5

2:04.3

2:05.3

2:06

2:07

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

Bubbling

Bubbling

Bubbling

Bubbling

pp

pp

Gathering Energy

Gathering energy

mp

mp

Each tick = 0.5 seconds 2:07

f 2:12.5

2:21

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

f

p dim.

p dim.

pp

cresc.

cresc.

f

6

2:21

2:22.7

2:24.3

2:26.8

2:28.8

2:31.3

2:32.3

2:34

2:36

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

2:36

2:38.2

2:40.25

2:41.2

2:42.3

2:43.4

2:44.7

2:51

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

sim

cresc.

sim

cresc.

sim

cresc.

f

2:51 2:51.6

2:59.6

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

relaxed

relaxed

relaxed

relaxed

mp

mp

mp

mp

3:12.5

3:15

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

Very Relaxed

Very Relaxed

Very Relaxed

Very Relaxed

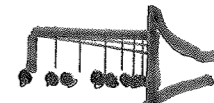
p

p

p

p

Tape



Clarinet 1

Very Light

Ready

intimate

tr

pp

mp

Clarinet 2

Very Light

Ready

intimate

tr

pp

mp

Clarinet 3

sub tone, intimate

Ready

tr

pp

mp

Bass Clarinet

sub tone, intimate

Ready

tr

pp

mp

Each tick = 1 second

3:29.3

3:34.4

3:36.8

3:40.3

3:44.8

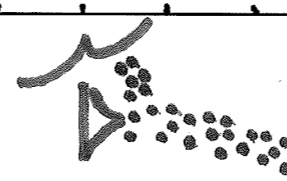
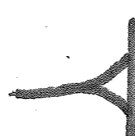
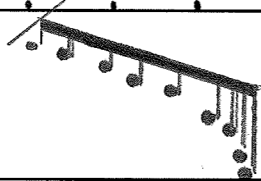
3:49.9

3:52.9

3:55.7

3:58

Tape



Clarinet 1

(tr) Slightly bring out trills

Ready

tr

pp

mp

Clarinet 2

(tr) Slightly bring out trills

Ready

tr

pp

mp

Clarinet 3

(tr) Slightly bring out trills

Ready

tr

pp

mp

Bass Clarinet

(tr)

Ready

tr

pp

mp

3:58 4:02 4:04.5 4:09 4:25.3

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

Ready

Ready

Ready

Ready

Each tick = 0.5 seconds 4:27.5 4:29.8 4:32.8 4:35.5 4:36.7 4:38.2 4:39.5 4:42

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

Bubbling

Ready

Ready

Ready

Ready

f

4:42 4:42.7 4:44.5 4:45.3 4:47.5 4:49.7

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

Ready

Ready

Ready

Ready

Tape

open sound

tr

Cl. 1

Cl. 2

Cl. 3

B. Cl.

ff

mf

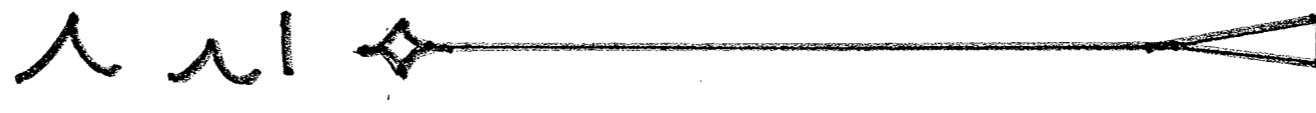
p

mf

ff

mf

Tape



Cl. 1 (tr) READY *fp* *mf*

Cl. 2 (tr) READY *fp* *mf*

Cl. 3 (tr) READY *fp* *mf*

B. Cl. *f* *mp* *mf*

Tape



Cl. 1 (tr) READY *tr* slow → fast *mf* *fp* *subito p*

Cl. 2 (tr) READY *tr* slow → fast *mf* *fp* *p*

Cl. 3 (tr) READY *tr* slow → fast *mf* *fp* *p*

B. Cl. *mf* *f* *subito p*

5:43.5

5:47

5:49.5

Handwritten musical score for four clarinets and a tape part. The score is written on five staves. The top staff is labeled "Tape" and contains two large, curved lines. The four staves below are labeled "Clarinet 1", "Clarinet 2", "Clarinet 3", and "Bass Clarinet". Each staff contains handwritten musical notation, including notes, rests, and dynamic markings. Dashed lines connect the notation across the staves, indicating musical relationships or phrasing. The notation is in treble and bass clefs, with various accidentals and articulation marks.

Tape



open sound  
tr

Cl. 1

pp open sound  
tr

Cl. 2

pp open sound  
tr

Cl. 3

pp

B. Cl.

mf

READY

READY

READY

READY

Tape



close sounding, intimate  
tr slow —————> fast

Cl. 1

fp close sounding, intimate  
tr slow —————> fast

Cl. 2

fp close sounding, intimate  
tr slow —————> fast

Cl. 3

fp

B. Cl.

f

READY

READY

READY

Tape



Clarinet 1

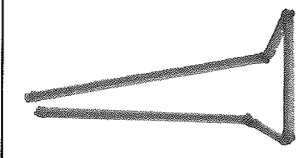
Clarinet 2

Clarinet 3

Bass Clarinet

Handwritten musical score for the first system, featuring staves for Clarinet 1, Clarinet 2, Clarinet 3, and Bass Clarinet. The score includes various musical notations such as notes, rests, and trills, along with the word "Ready" written in multiple places. The time signature is 4/4.

Tape



Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

Handwritten musical score for the second system, featuring staves for Clarinet 1, Clarinet 2, Clarinet 3, and Bass Clarinet. The score includes various musical notations such as notes, rests, and trills, along with the word "Ready" written in multiple places. The time signature is 4/4.

6:38

6:39

6:40

6:41

6:42.5

6:43.5

6:44.5

15

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

6:44.5

6:54

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

Like being  
suspendedLike being  
suspendedLike being  
suspendedLike being  
suspended

7:26

7:42

7:55

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

flattement

pp

pp

pp

flattement

placed

throbbing

7:57

8:14

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

(flattement)

mp

mp

8:26

8:31

8:48

8:54

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

Tape becomes very held and textural.

tr ~  
b (40)

open  
tr ~  
(b0)

open  
tr ~

open  
tr ~  
(b0)

18

8:56

9:07

9:15

9:18

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet

9:38

Tape

Clarinet 1

Clarinet 2

Clarinet 3

Bass Clarinet