La torre de Chitor, for flute and electronics

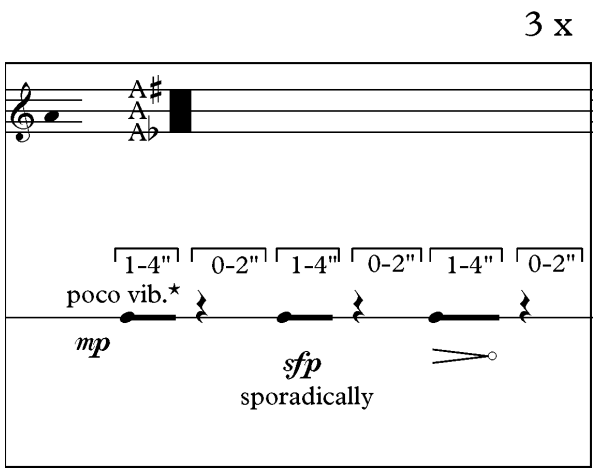
Christopher Luna-Mega (2016)

This piece is named after the short story *A Bao A Qu* by Jorge Luis Borges, included in *The Book of Imaginary Beings* (1968). The piece flows from the flute's bottom register progressively to the upper register, from a single band width to multiple band widths, from the unison to the micro-tonal cluster. As these elements gradually build, there is an ascension, an activation of a transcendental glow that emanates in the end of the piece.

Performer and electronics slowly build micro-tonal clusters around a single pitch. The idea is to gradually expand from the unison towards the immediate semitone or quarter tone above or below, as the electronics are playing back single flute sounds or groups of flute sounds. The performer's focused listening will allow to gradually fill the micro-pitch spaces played back by the electronics.

Performance notes

The score includes three staves. The upper and middle staves provide information for the flute performance. The bottom staff provides information about the electronics –texture build up and playback pacing.

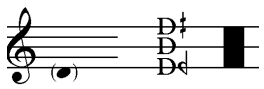


The upper staff shows the register and pitch range from which the performer must choose different micro-tones until reaching a dense micro-cluster. These may be freely alternating.

The middle staff shows: 1. Indeterminate durations (explained in the following page); 2. vibrato indication (must vary in rhythmic periodicity each time); 3. dynamic markings (explained in following page).

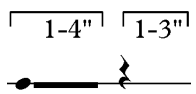
The bottom staff provides information about the electronics. Each horizontal line represents a flute sound that is being played back and repeated at random time intervals by the electronics.

Microtones



The performer must choose not only among the notes shown on the lines, but from the microtones within the lines, covered by the dark rectangle next to the pitch column in the example. The goal is to transform a unison starting from the middle note (D in the example) into a micro-tonal cluster as the material is repeated and played back by the electronics.

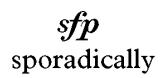
Durations

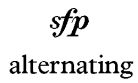


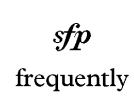
Most of the durations in the piece are flexible and determined by the performer. Durations must differ every repetition of a fragment or cell. In this example, to be repeated 5 times, each attack must be different in duration between 1 and 4'' long; each silence must be different in duration between 1 and 3''.

Durations of rests with fermatas are optional for the performer, who may take into consideration the playback durations of the electronics.

Dynamics

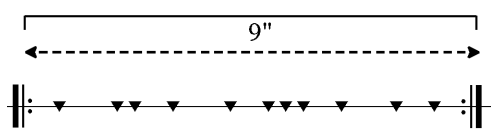






sfp dynamics are used *ad lib.* and intermittently over the assigned dynamic for the fragment played. For example, in a 5-sound fragment where ***mp*** is the dynamic marking and the ***sfp*** is marked "sporadically", 4 of those sounds should be ***mp*** and one should be ***sfp*.** If "frequently", 3 or 4 or those sounds would be ***sfp*** and 1 or 2 would be ***mp*.**

Reversible order and ▼ sounds



Two-directional arrows over repeat signs mean that the performer may choose to play the proportionally notated material in any order and from any point of between the repeat signs.

The sound of the ▼ noteheads is produced by singing the word "tuk" loudly into the embouchure hole while pressing the fingering for the given note.

Technical requirements

The requirements for the piece are flexible depending on the possibilities of the event. While the live electronics version is preferable due to the open nature of the piece, a version with fixed media provides a simple and practical solution to performance while faithfully conveying the sound world of the piece.

For flute and live electronics:

- MacBook Pro laptop with OS 10.11, computer program Max 7.2, and flute audio sample folder for the patch to read
- Max patch for *La torre de chitor* (included in the folder with piece materials)
- Audio interface (MOTU 828 or similar) with 2-4 outs; optional mixing board
- Flute amplification: condenser microphone such as/similar to Shure SM-81. If using 4 loudspeakers, the live flute sound is only assigned to front speakers (1 and 2)
- 2 to 4 loudspeakers. When using 4 loudspeakers, they are spatialized in the auditorium

For flute and fixed media:

- Laptop and Digital Audio Workstation such as Logic, Reaper, etc.
- Audio interface (MOTU 828 or similar) with 2-4 outs; optional mixing board
- Flute amplification: condenser microphone such as/similar to Shure SM-81. If using 4 loudspeakers, the live flute sound is only assigned to front speakers (1 and 2). Flute amplification must always be slightly louder than the electronics.
- 2 to 4 loudspeakers. When using 4 loudspeakers, they are spatialized in the auditorium
- Fixed media track for *La torre de chitor* (included in the folder with piece materials)

La torre de Chitor, for flute and electronics

after the short story "A Bao a Qu", by Jorge Luis Borges

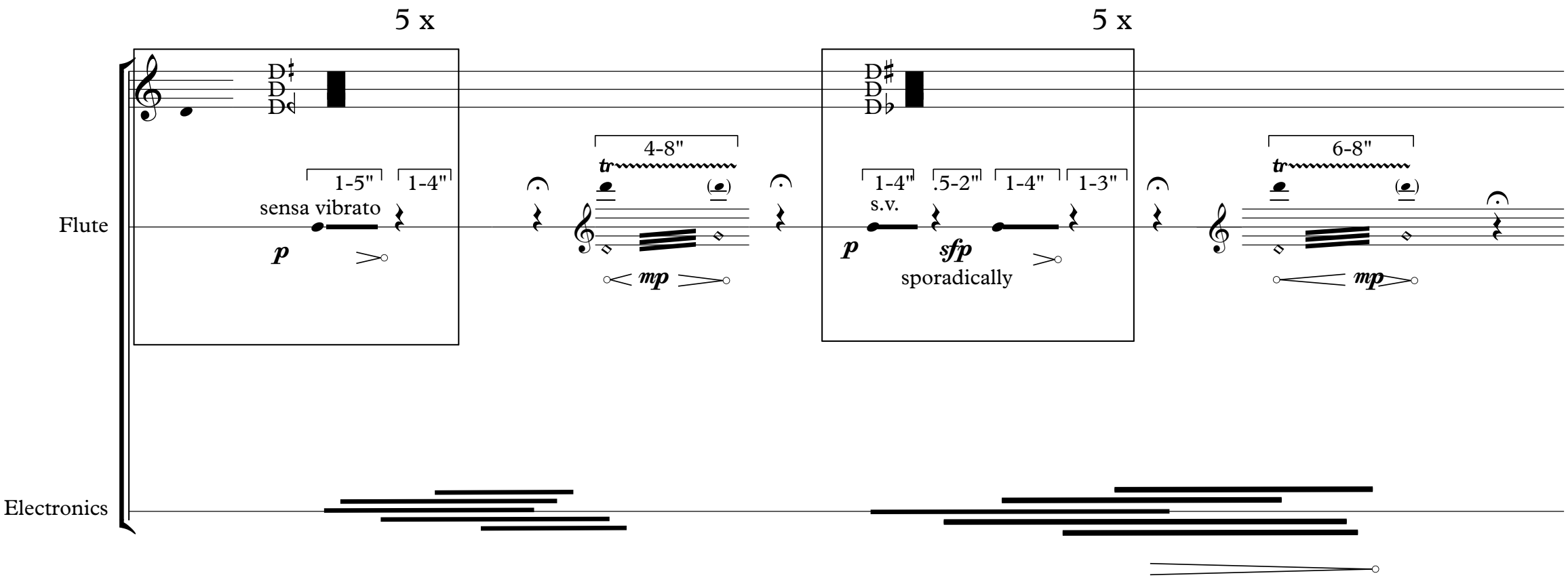
Christopher Luna-Mega (2016)

A 00:00

B 00:40

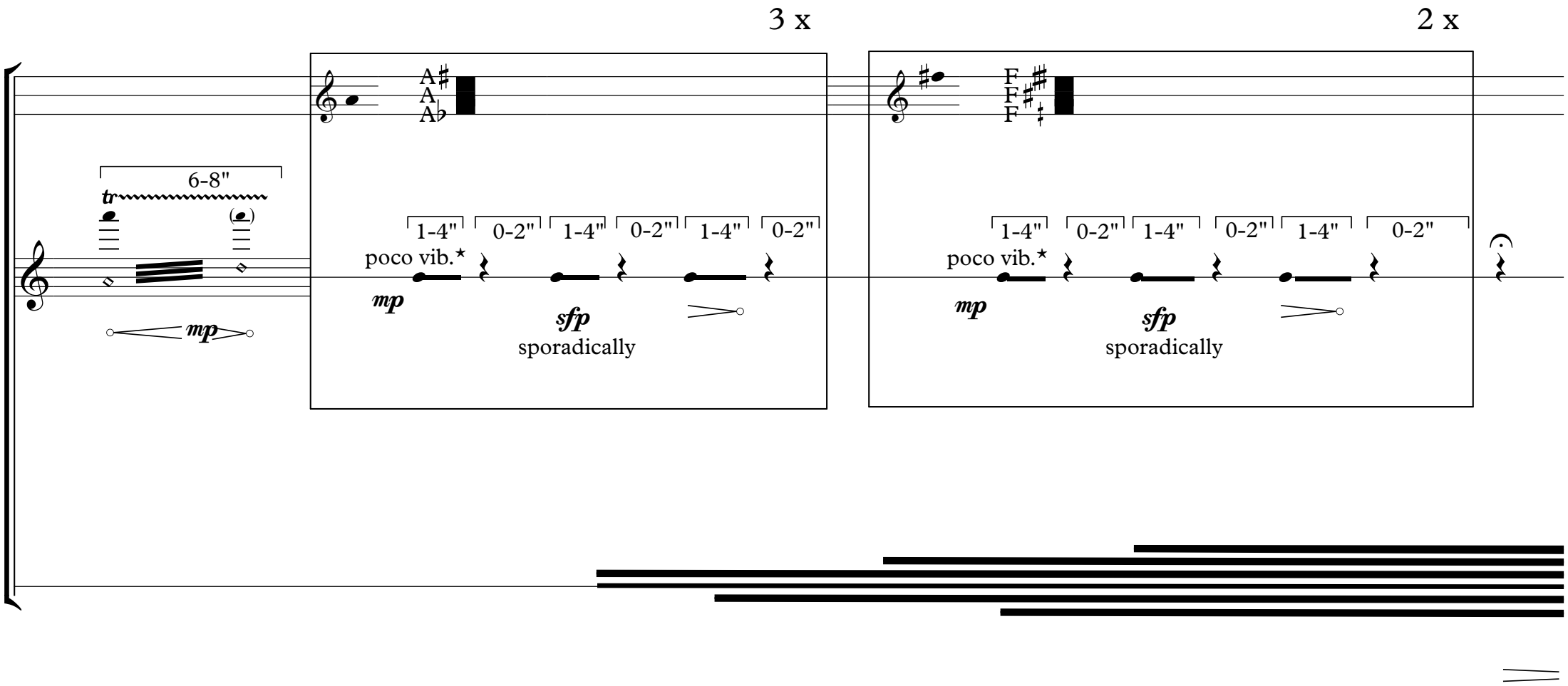
C 00:50

D 02:00



E **F**

2:10 2:18



* Vary rate of vibrato ad. lib. each sound.

G

03:53

8-12"

4-7"

6-8"

tr

p *mp* *p*

H

4:28

uneven durations ⋆

8-13"

vib.⋆

mp *sfp*

alternating

4:45

10-15"

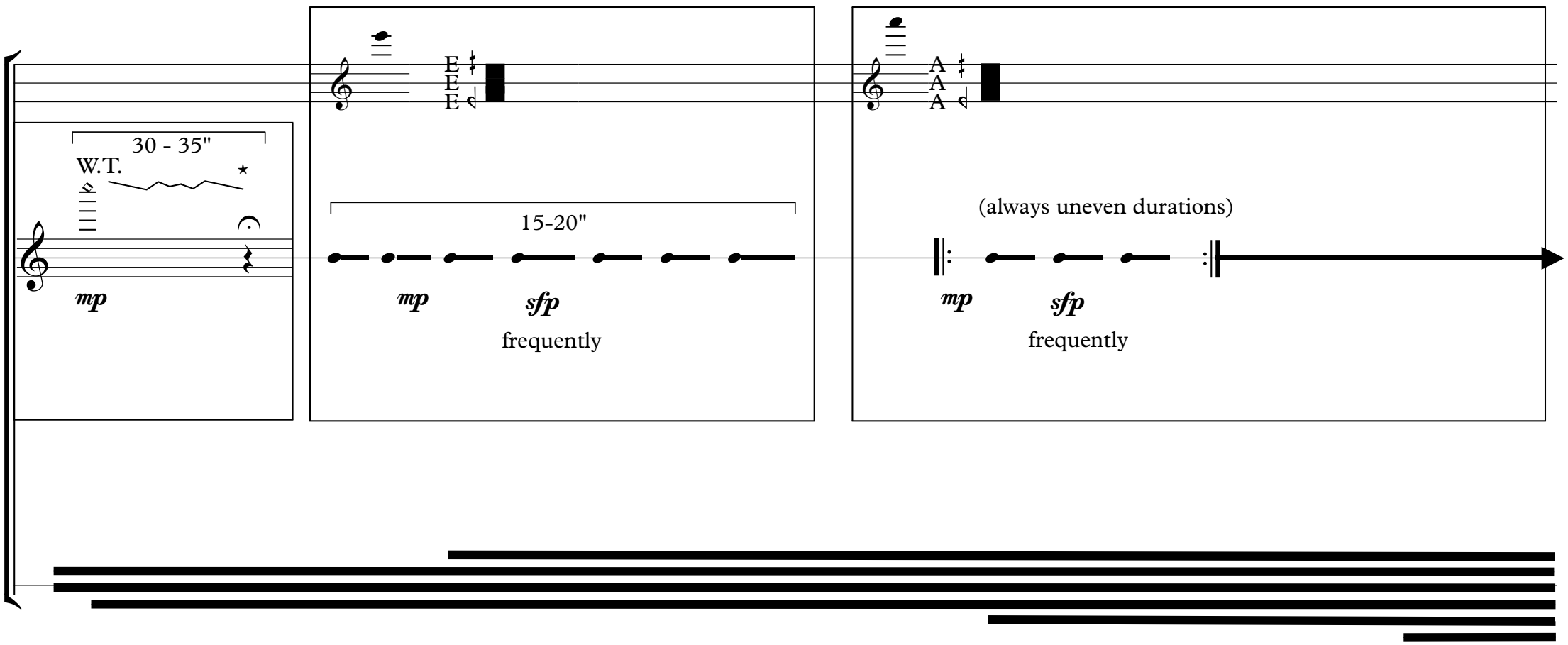
mp *sfp*

alternating

⋆ 1) Durations must always be uneven until the end of the score

⋆ 2) Vary the rate of vibrato ad. lib. for each sound until the end of the score

5:15 5:35 5:55



* Breathe when necessary throughout the gesture

I

6:10

Ad libitum flow between the pitches and microtonal neighbors provided in Section H (notated above). Improvise rhythms, durations and dynamics.

J

7:30

D
C
B

7-14"

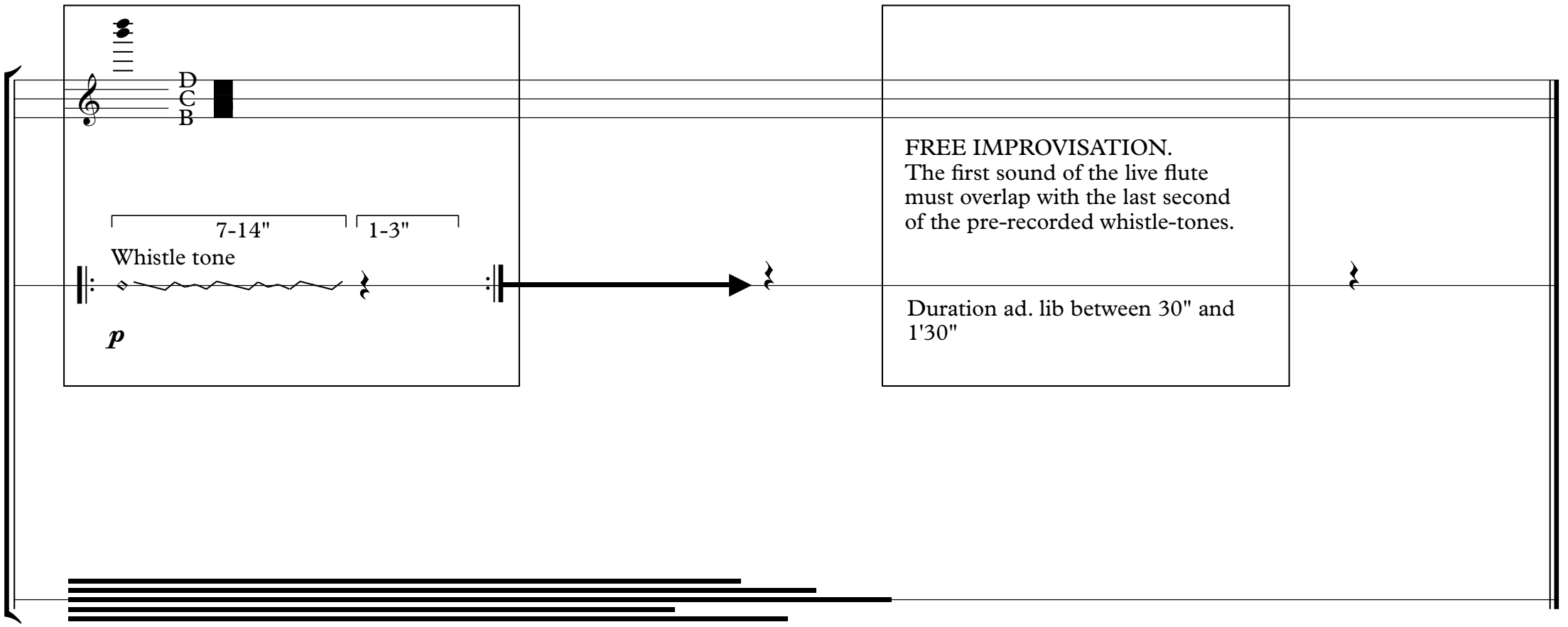
1-3"

Whistle tone

p

J

(continued)



K

8:54

Arrival at the terrace of the Tower of Victory,
and A Bao a Qu attains its perfect form.

FREE IMPROVISATION.
The first sound of the live flute
must overlap with the last second
of the pre-recorded whistle-tones.

Duration ad. lib between 30" and
1'30"