

## **Contrastes (dispositif d'écoute / c'est moi qui souligne)**

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London, January 2013

These instructions explain how contrastes 1-3 were put together, and how listeners can generate their own versions. A version of contrastes is composed of several parts (the number is up to you to decide), each part resulting from an iteration of the procedure described below.

A field recording is the starting point of this piece: the total duration will be that of each part, the dominant frequencies will dictate the tones to play alongside the recording.

The recording plays and is silenced a certain amount of times during each part, while tones start and stop. The occurrences and durations are determined randomly as explained below.

Silencing the recording:

- determine a random\* amount of time-points
- if the seconds in the first time-point are an even number, then everything that precedes it has to be silenced, otherwise this time-point marks the beginning of the first silencing of the recording
- in case of an odd number of time-points, the part will end with the recording being silenced

The tones:

- with a spectrum analyser, find the dominant frequencies, for portions (wherever anything striking happens) or whole of the recording
- calculate the frequencies corresponding to the fourths and fifths of the dominant frequencies
- determine randomly\* (between 1-10) a number of tones to use for the part

For each tone, select randomly:

- 1 a frequency from the list of dominants, fifths and fourths
- 2 a start-time comprised anywhere between the beginning and the end of the recording
- 3 a duration, anything between the shortest possible and 1 minute.

\*random integer generator: <http://www.random.org/integers/>

\*random clock time generator: <http://www.random.org/clock-times/>

The parameters below also provide indication on the notes corresponding to the frequencies used, with in mind the performance of the piece with the tones played by acoustic instruments.

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Recording: 13'49

part 1

10 time points (parameters: 3-12):

- \* 00:20 sound on
- \* 00:23 sound off
- \* 02:20 on
- \* 04:15 off
- \* 05:13 on
- \* 05:49 off
- \* 07:13 on
- \* 09:02 off

\* 09:13 on  
\* 09:24 off

9 tones (duration: 1-120 seconds):

{time start (duration); pitch [frequency]; dynamic}

- \* 01:47 - 02:01 (14s); halfway between F4-F4# [358 Hz] very quiet
- \* 02:15 - 03:02 (47s); between B4-C5, 1/3 tone down from B4 [502 Hz]; same as recording
- \* 02:53 - 04:19 (86s); D6 [1170 Hz]; right above
- \* 03:19 - 04:42 (83s); halfway between C5-C5# [537 Hz]; below recording
- \* 03:41 - 05:13 (92); E6 [1317 Hz]; above
- \* 07:52 - 08:23 (31s); just below E4 [335 Hz]; right below recording
- \* 11:22 - 11:40 (18s); just below A4 [446 Hz]; right below
- \* 12:24 - 13:45 (91s); just above A5 [878 Hz]; right below
- \* 13:44 - 13:49 (5s); 1/3 tone down A4# [477 Hz]; right below

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part 2:

6 time points (parameters: 1 between 3-12):

- \* 00:11 off
- \* 00:33 on
- \* 04:22 off
- \* 06:32 on
- \* 09:33 off
- \* 11:15 on

8 tones (parameters: 1 between 1-10)

{time start (duration); pitch [frequency]; dynamic}

- \* 00:11 (110 sec); C4# [277 Hz]; slightly above recording
- \* 03:54 (11 sec); E6 [1317 Hz]; well below recording
- \* 04:06 (44 sec); C5 [524 Hz]; well below
- \* 04:26 (37 sec); slightly below D6 [1190 Hz]; above recording
- \* 05:39 (18 sec); slightly below C5 [526 Hz]; very quiet
- \* 10:22 (120 sec); A5 [878 Hz]; above
- \* 12:16 (82 sec); 1/3 tone down B4 [502 Hz]; well below
- \* 13:28 (30); F3# [185 Hz]; same level as recording

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part 3

9 time points:

- \* 00:06 on
- \* 00:40 off
- \* 01:17 on
- \* 03:15 off
- \* 05:44 on
- \* 07:23 off

\* 08:37 on  
\* 12:06 off  
\* 12:13 on

4 tones:

{time start (duration); pitch [frequency]; dynamic}  
\* 00:51 (53 sec); slightly above B5 [975.29 Hz]; right below the recording  
\* 07:12 (51 sec); F3# [185.01 Hz]; right below  
\* 10:54 (23 sec); D4# [313.47 Hz]; well above  
\* 12:04 (11 sec); little below G5 [786.16 Hz]; below