

Steve Reich's

PENDULUM MUSIC

FOR MICROPHONES, AMPLIFIERS, SPEAKERS AND PERFORMERS

2, 3, 4 or more microphones are suspended from the ceiling by their cables so that they all hang the same distance from the floor and are all free to swing with a pendular motion. Each microphone's cable is plugged into an amplifier which is connected to a speaker. Each microphone hangs a few inches directly above or next to its speaker.

The performance begins with performers taking each mike, pulling it back like a swing, and then in unison releasing all of them together. Performers then carefully turn up each amplifier just to the point where feedback occurs when a mike swings directly over or next to its speaker. Thus, a series of feedback pulses are heard which will either be all in unison or not depending on the gradually changing phase relations of the different mike pendulums.

Performers then sit down to watch and listen to the process along with the audience.

The piece is ended sometime after all mikes have come to rest and are feeding back a continuous tone by performers pulling out the power cords of the amplifiers.

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Alvin Lucier «**I Am Sitting in a Room**» for voice and electromagnetic tape (1969)

Necessary equipment:

one microphone, two tape recorders, amplifier and one loudspeaker.

- Choose a room the musical qualities of which you would like to evoke.
- Attach the microphone to the input of tape recorder #1.
- To the output of tape recorder #2 attach the amplifier and loudspeaker
- Use the following text or any other text of any length:

I am sitting in a room different from the one you are in now.

I am recording the sound of my speaking voice and I am going to play it back into the room again and again until the resonant frequencies of the room reinforce themselves so that any semblance of my speech, with perhaps the exception of rhythm, is destroyed.

What you will hear, then, are the natural resonant frequencies of the room articulated by speech.

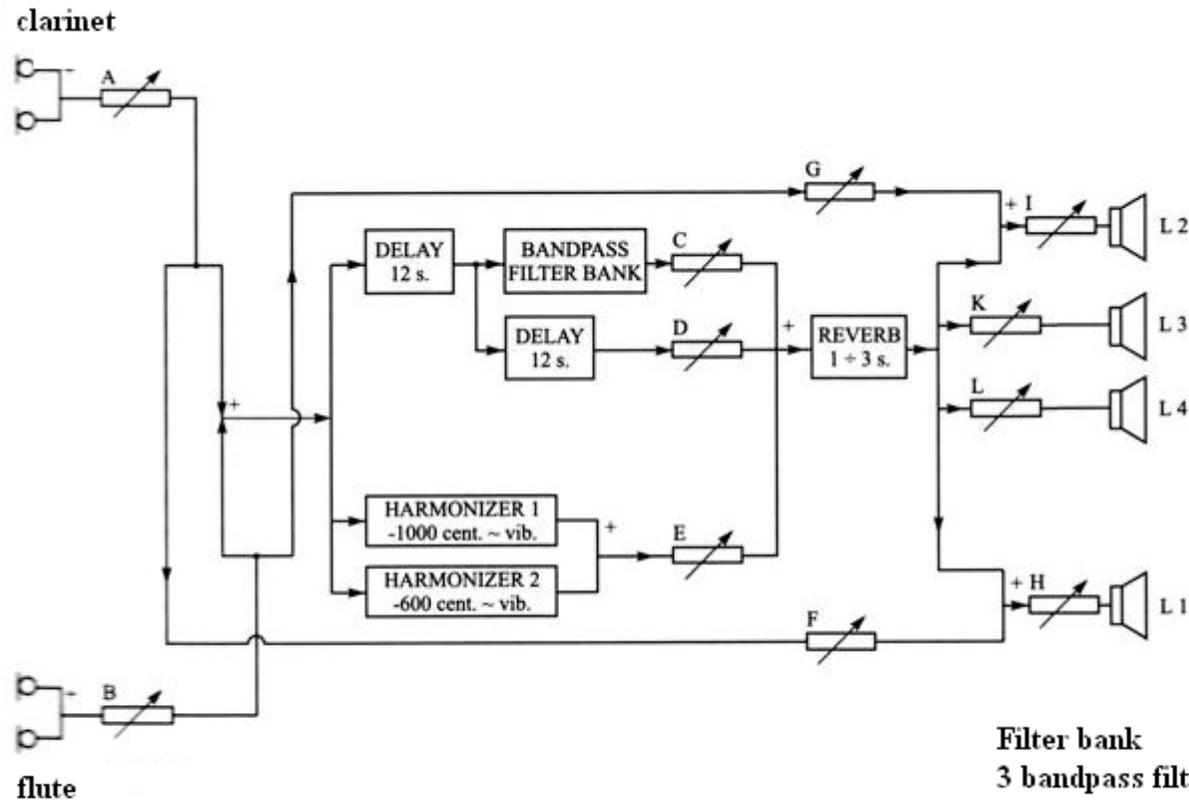
I regard this activity not so much as a demonstration of a physical fact, but more as a way to smooth out any irregularities my speech might have.

- Record your voice on tape through the microphone attached to tape recorder #1. Rewind the tape to its beginning, transfer it to tape recorder #2, play it back into the room through the loudspeaker and record a second generation of the original recorded statement through the microphone attached to tape recorder #1. Rewind the second generation to its beginning and splice it onto the end of the original recorded statement on tape recorder #2. Play the second generation only back into the room through the loudspeaker and record a third generation of the original recorded statement through the microphone attached to tape recorder #1.
- Continue this process through many generations. All the generations spliced together in chronological order make a tape composition the length of which is determined by the length of the original statement and the number of generations recorded.

- Make versions in which one recorded statement is recycled through many rooms.
- Make versions using one or more speakers of different languages in different rooms.
- Make versions in which, for each generation, the microphone is moved to different parts of the room or rooms.
- Make versions that can be performed in real time.

Source: Gisela Gronemeyer/Reinhard Oehlschlägel: Alvin Lucier. Reflexionen, Interviews, Notationen, Texte, Köln 1995, S. 321.

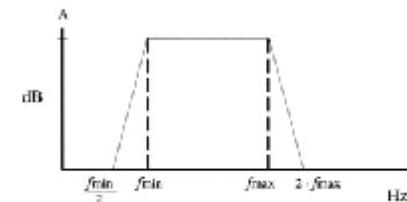
instructions from the score to Luigi Nono's **A Pierre. Dell'azzurro silenzio, inquietum** for doublebass clarinet, double bass flute, live-electronics



Delay
 delay time1: 12 sec
 delay time2: 12 sec
 Reverb
 reverb decay time: 1-3 sec, depending on room acoustics

Filter bank
 3 bandpass filters, -60 dB / octave

	f_{min} (Hz.)	f_{max} (Hz.)
1	40	300
2	675	1012
3	2278	3417



Harmonizer (2 pitch-shifters)
 1 a 7th- lower
 2 a 4th+ lower