Zeitleben/Timelife

game piece
for double bass
and live audiovisual processes

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Concept

The piece explores the notion of Time in a staged, live audiovisual performance. It is based on the idea of representation of Time (past-present-future) with spatial properties (left-center-right). The bassist stands and plays under the projection screen, where the "Now" takes place. His/her sound/image is recorded/captured by a microphone/camera and reproduced/projected by stereo speakers/projector at the acoustic field of the concert hall/projection screen. His sound/image, which is technically a synchronized audiovisual delay line, starts above the player with zero delay time and moves to the left (past) with a constant speed. As the sound/image moves to the left, the delay time increases.

A pre-produced video is projected in the background showing a hand writing the word "now" ("jetzt" in German) and then drawing a wavy line. The hand and pen stay always at the same position, exactly over the bass player pointing the "Now".

The artificial sound/image is referred as "shadow". Five "shadows" appear in the piece successively. With the insertion of a new "shadow" the old one(s) remain, creating a multi-layered audiovisual texture. The bassist plays the piece in two modes. In the "shadow" mode he/she just plays freely the notated score, without trying to be synchronized with his delayed "shadows". In the game mode (designated as "game event" in the score) the bassist plays initially some percussive sounds, with some glissandi, which work as indicators. After a while, the delayed "shadows" repeat the percussive sounds, while the bassist tries to match exactly new percussive sounds with the delayed ones. The glissandi indicators help him/her to be synchronized. When the bassist succeeds in matching the new with the old percussive sounds, the corresponding "shadows" "jump" (move quickly but a bit at the right). With this game the bassist tries to bring back his "shadows" to the present and prevent them from being disappeared in the past (like a struggle to keep alive a valuable memory). The bassist has to understand perfect how the game works and find strategies in order to be more effective in the game. Also he/she has to differentiate his/her strategies between the five different "game events". The difficulty of the "game events increases successively.

At the last bar the bassist stands up, goes slowly to the right (to the left from his perspective) and exit. The idea is that he disappears in the future while he decelerates his tremolo movement. When he/she disappears a new background video is projected, showing the hand coming in the middle of the screen and writing some words. The sound of the five delay lines remain while being live feedbacked, resonating through the acoustic field of the concert hall, creating the "I am sitting in the room" effect.

Every performance of the piece is different, since the outcomes of the "game events" vary stochastically. As a result the delay times of the "shadows" also vary, changing the overall sounding result of the performance.

Stage
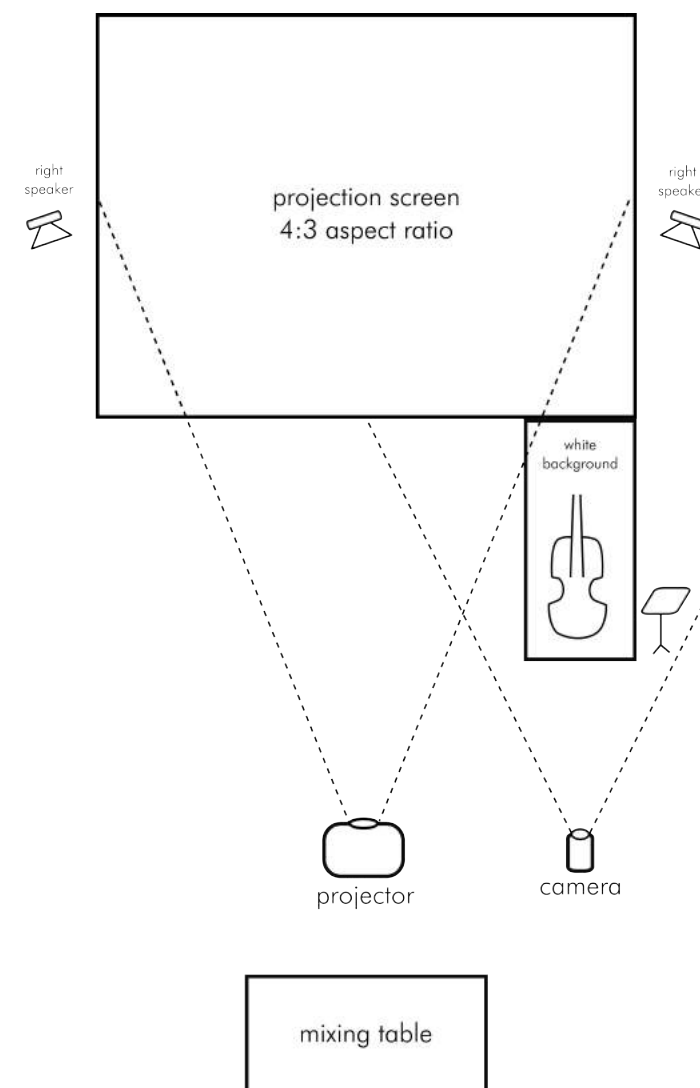
A stage with a projection screen is necessary for the performance. The bassist stands below and at the right side of the projection screen. The background, ehere he/she stands, is covered with white paper as shown in the photo. Lighting from multiple directions should be used in order to minimize the shadows of the bassist in the white background. The camera should be positioned directly facing the bassist, about 3 meters away, at about 1.50 meters high. The image of the camera is croped in the software and the resulting frame should contain only the bassist in the white background (note stand out of frame).

Scordatura

The following tuning should be used for the performance:

It is recommended that the bassist tunes the double bass with this scordatura when he starts practicing the piece, and don't change the tuning until the performance. The score is written with the normal tuning. The piece can be easily adapted for a cello version.

Performance notes

The piece explores the notion of continuity in the performance. Except the "game events", all movements of the right (direction change of the bow) and left hand (glissandi) should be as continuous as possible. The bassist touches the instrument with both hands (right hand through the bow) constantly (except the "game events"). The tempo is relative to the physical bodily gestures. He/she can vary slightly the tempo for each "shadow".

In the "game events" the bassist initially plays percussive sounds preceded by indicators glissandi in a relatively free tempo. He/she has to memorize exactly how he/she played this first wave of percussive sounds in oder to be able to match the second wave of percussive sounds (scored inside the box). He/she has to play the exact number of written percussive sounds for every "game event". As the "game events" proceed, more "shadows" and percussive sounds are present, so he/she has to use some stochastic strategies in order to be more effective. For example in the last and more complicated "game event", all "shadows" are very closed and he/she has to match 25 percussive sounds. So he/she would be more effective if he/she just play randomly a flow of percussive sounds in a small time interval.

The symbol ⬚ introduced in the third "shadow" designates a relative grip on all four strings as shown in the photo:

Technical notes

The background videos as well as all shadows are triggered by the computer musician through the software. He/she also amplifies the live sound from the double bass in the fourth and fifth "shadow". In the last part he/she controls the delayed feedback, makes it audible but not uncomfortably loud.

A clip instrument microphone should be attached in the double bass as shown in the photo:

Preferably a radio transmitter should be used to send wirelessly the microphone signal to the mixer. If this option is not available, a long audio cable could be used but should stay out of sight.

The game is conducted through the software (pure data). A bonk~ object tracks the percussive sounds. It is crucial that the sound from the loudspeakers doesn't trigger the live bonk~, which should be triggered only by the live bassist. The sensitive balance between the acoustics of the concert hall, position of the loudspeakers, position of the bassist, exact placement of the clip microphone, level of amplification and parameters of the bonk~ object should be found, in order to prevent false triggerings.

Required software:

- Pure Data (0.45.4) and Gem library (0.93).
- Linux or OSX operating system (possibly working on Microsoft Windows).

Required hardware:

- 2 processors, at least 2.0 GHz each.
- 4 GB memory RAM.
- graphic card (1 GB memory).
- two screen display outputs (for projector and monitor).
- USB ports.

Required equipment:

- Audio interface which supports 2 inputs and 2 outputs.
- Mixer which supports 2 inputs (pre-fader and aux send) and 2 outputs.
- Radio transmitter (optional).
- Clip instrument microphone.
- Condenser microphone for the feedback (optional).
- Two concert loudspeakers (left-right).
- USB Web-Camera.
- Projector.
- Projection screen.

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