Mizuki Ishikawa
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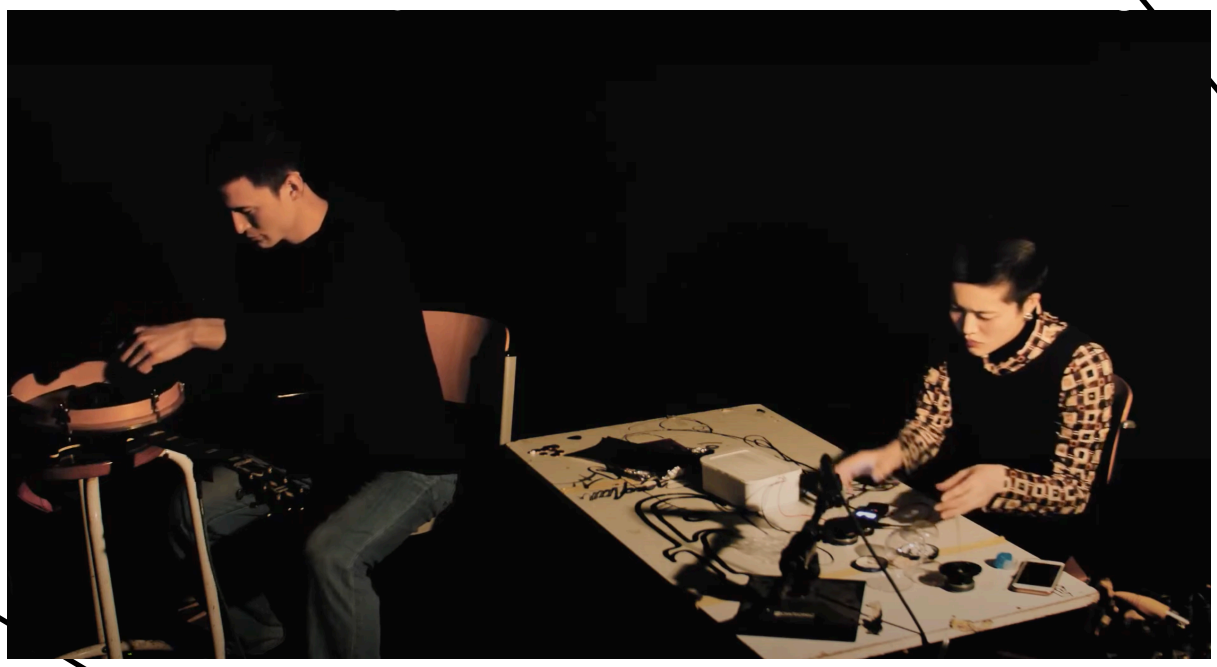
Acoustic feedback for live music



Description of the project

Mizuki Ishikawa and Shun Momose have been working on experimental music/ sound art performance with feedback interference since 2022. There are three characteristic points.

1. Feedback as music elements

Although feedback has been seen in early experimental music composition such as “pendulum music” by Steve Reich, our performance elastic. Each of our instruments sets have own ecology of acoustic feedback with microphones/pickup and speakers. By means of materials/objects between inputs and outputs or position of microphones, we bring musicality independently in own feedback by controlling the pitch of the resonant frequency of feedback.

2. Room acoustics as musical elements

“feedback is an oscillation at a resonant frequency of your sound system and the room.”[1] Not only condition of our music instruments but also room acoustic environment and sound absorption of the audience have much influence on the quality of feedback and its operation. Thus, our performance engages in perceiving the resonant of the room and the sound traveling into space, which allows us to have distance from conventional composing process.

3. Interference

To point out as referential phenomenon for the phenomenon, Flux artist, sound artist Takehisa Kosugi coined a term “catch the wave”, which refers to the usage of phenomenon called “heterodyne” (the production of a lower frequency from the combination of two almost equal high frequencies in electric circuit.) as musical elements. Although, strictly speaking, the heterodyne phenomenon happens within electric circuit, we interact with each other feedback ecology (not only in PA circuit but also acoustic room)and it makes interferes and heterodyne phenomenon that the audience can hear as beat sound.

[1] Shure website “FEEDBACK-FACT AND FICTION” https://www.shure.com/en-US/performance-production/louder/feedback-fact-and-fiction

Figure of sound environment of our performance