

**UNIARTS
HELSINKI**

✕ SIBELIUS ACADEMY

Joy Against the Machine

**Libero Mureddu's
first doctoral concert**

**Maanantaina 08.02.2021 klo 19:00
Sonore-sali, Musiikkitalo**

**Monday 2 February 2021 at 7 pm
Sonore Hall, Helsinki Music Centre**

Septad ensemble:	Free improvisation performance	~30'
Libero Mureddu:	Joy Against the Machine	30'
	Libero Mureddu: piano, electronics and visualisation, concept and artistic direction, Livia Schweizer, flute Mikko Raasakka*, bass clarinet Veli Kujala, quarter-tone accordion Aino Juutilainen, cello, visualisation and additional concept Ville Herrala, double bass Janne Tuomi, drums and percussion	

*In this concert Mikko Raasakka substitutes Ville Lähteenmäki, who could not travel to Finland because of COVID-19 travel restrictions.

Anssi Vätö, sound engineer (streaming)
Jon-Patrik Kuhlefelt, sound engineer (FOH)
Jukka Kolimaa, light designer
Keijo Lahtinen, cameras and direction
Anna Huuskonen, producer

About the concert

1. Introduction

The knowledge of a free improviser is a highly specialised and complex knowledge, used to generate and elaborate musical material, musical structures, interaction strategies with other players, all of which at the same time of the performance. This knowledge is ‘practical, situated and embodied’ (McGuirk 2010), and operates simultaneously on a number of intertwined areas such as instrumental practice, formal choices, imagination and emotions, performer's corporeality and its connection with time and space. The numerous elements at play constantly inform each other and can be hardly organised in a hierarchical order. Evan Parker, one of the most influential living improviser, has succinctly and effectively said that ‘sometimes the body leads the imagination, sometimes the imagination leads the body’ (Parker 2018).

While its genuinely embodied quality makes free improvisation a unique artform, this same essential quality complicates the understanding of what we do when we improvise, how to define it, and how we learn new skills. A purely cognitive approach, such as Pressing's influential cognitive model of improvisation (Pressing 1988), might overlook the importance of emotional, spatial and social situatedness of free improvisation. Deciphering free improvisation requires the researcher-practitioner to shed light into a complex, emergent, at times self-organising matter while being immersed in it. My practice-led research proposes a multidisciplinary and holistic framework that seeks to reveal, to the performers and the audience alike, the multifaceted nature of this embodied knowledge and how it is used in an improvised performance. With *disembodiment* I define the process of analysis, virtualisation, translation and visualisation necessary to reveal and share the improviser's embodied knowledge.

In my doctoral work, a series of five concerts will be the laboratory settings in which the disembodiment process will take place in real-time, with the help of interactive software, visualisations, improvising machines and machine learning algorithms.

2. Joy Against the Machine, first doctoral concert

2.1. History of the project

The initial input for this project came in 2018 during a conversation with double bass player and improviser Antonio Borghini, in which we discussed the importance of *when* a certain musical action takes place versus *what* is the content of the same musical action. From this conversation, I started to envision a performance in which the *what* and the *when* would be decided by a machine, to observe the performers' reactions to this constrained setting and possibly give an answer to the question whether the *what* and *when* can be separated, and if it is possible to establish a hierarchy between the two.

Another important influence for this project has been witnessing numerous instant-composition performances during my residency in Berlin in 2019, in which I did a field study of some of the free improvisation trends present in the city. I have been particularly impressed by the performances of the Klub Demboh collective, a group that has developed an ‘an open and multiform music in which the unexpected often has drastic consequences. Improvisation on the verge of total collapse’, as defined by one of its founding members (Grip n.d.). I have been particularly impressed by the group's ability to create parallel threads at any time and the successful synthesis between musical and theatrical elements. Faithfully to their own presentation, they do embrace unexpectedness, risk taking, and their performances are constantly on the edge of failure. As an artistic researcher and performer, I have been interested in understanding why their performances seemed so fresh, liberating, joyful, chaotic yet organic.

Finally, starting from 2018 I began imagining a solo performance guided by a machine-generated score, in which the role of the software would be comparable to a training machine that would constantly challenge me by imposing randomly chosen combinations of musical elements taken from my own vocabulary.

2.2. About the concert

The influences described in the previous section strongly resonated with the subject of my research, in which I am looking for ways to isolate, analyse and visualise embodied knowledge in free improvisation, and merged into the realisation of the first doctoral concert. I devised a performance setting in which the players have to follow instructions played back by a software. The instructions are projected on a screen and are visible by the audience and the players alike. All the instructions are randomly chosen at the time of the performance from a common pool that contains over two hundred instructions. Each performer is assigned a separate colour-coded timeline in which the instructions are played back at different paces. All the timelines are divided in three sections, in which the instructions are played back respectively at a slow, medium and fast pace. The order of the sections is randomly decided by the software before the performance.

During the autumn 2019 I performed an initial version of this concert to test the validity of the concept in a duo setting with cellist Aino Juutilainen. We were both surprised by the results of the performance. The most evident reaction was a liberating feeling, the sensation of being freer than in a traditional improvised performance. Following the orders from a machine released us from at least part of the performers' responsibility, allowing us to enjoy even the most challenging combination of instructions. Moreover, we purposely included commands that forced us to use our voice and body, as those elements are absent in our artistic practice. Being forced to extend our vocabulary felt surprisingly easy, and I personally have begun to include my voice in my improvisations. During summer 2020 the concept was further tested by extending it to an instrumental quartet composed of myself, Aino Juutilainen, flutist Livia Schweizer and double bass player Ville Herrala. The experiment yielded similar results, the only difference being the increased difficulty of following the other players' timelines, because of the greater amount of information.

In this doctoral concert I am further expanding this concept as I will extend the experiment to seven players, the members of the Septad ensemble that I founded in 2019. The performance is divided in two parts. In the first part we will perform a traditional free improvisation performance, while in the second the players will perform by following the instructions played back by the machine. This formal diptych, with the two parts having roughly the same duration of 30 minutes each, was chosen to realise the laboratory setting previously described, and allow the audience and the performers to compare a free performance with a constrained one. Differently to the previous versions, an additional global timeline has been added. This timeline contains events that influence all the performers such as instructions to play solos, duos, trios, and actions that are given to all the players at the same time. Similarly to the other seven timelines, the events in the global timeline are randomly assigned at the time of the performance.

2.3. Title of the concert and research questions

The title I have chosen for this concert is 'Joy Against the Machine'. While being a clear reference to the rock band 'Rage Against the Machine', there is no musical connection with that band and the title was chosen for its literal meaning and its efficacy. However, I definitely sympathise with the band's criticism of our late capitalistic society. Because during the concert the performers are forced to obey to instructions coming from a higher and invisible entity, the Machine, I initially envisioned an outcome in which the performers would have been struggling to find solutions to the constantly changing situations generated by the software. The liberating, joyful feelings of the preliminary tests were unexpected. This fact, if confirmed after the performance with the septet, generates various questions: do we humans, or at least the subgroup of free improvisers, enjoy obeying to a machine, rather than to a fellow human? Could it be that free improvisers are able to create meaningful performative actions even if the *what* and *when* are dictated from the outside – thus at least partly disembodied from the players – and if yes, where this ability comes from? My answer to the last question is that under a constrained situation as the one I created for this concert, a free improviser is particularly forced to rely on its embodied knowledge, as there is no time to think in advance what to do and how to do it. The visualisation of the instructions will

allow on one hand the audience to follow in real time the reactions of the performers, and on the other will help me to analyse the performers' choices after the concert, as the concert will be video recorded. Finally, during the rehearsals and after the concert I will gather the impressions and feedback from the performers, initially in the form of an informal conversation with the ensemble, and later, as an interview.

3. Software implementation

In order to realise the software, I had to understand how to formalise a free improvisation performance similar to the one I was interested in realising. I began by deciding some properties for the score: it should have had a definable overall duration and should have contained multiple timelines with randomly placed triggers for the instructions. The main question that I had was whether a further organisation of the inner structure of the timelines was needed or not. On one hand I did not want to *compose* a piece but simply create a framework for the improvisers, but on the other hand I wanted to create a form with a certain internal coherence. While in an improvisation context is impossible to establish the duration of a certain section, a fully randomised approach seemed contrasting with the formal developments I have witnessed in my experience as an improviser. After analysing various performances of free improvisation, I decided to organise the performance in three subsections, in which the pace of the instruction is respectively slow (between 1 and 2 minutes), medium (between 30 seconds to 1 minute), and fast-paced (between 5 and 15 seconds). The alternative would have been a unique section in which the pace was randomly chosen between the minimum value, 5 seconds, to the maximum, 2 minutes. I programmed a Max patch that randomly decides the order of the three subsections, generates the seven individual timelines and an additional one common to all the performers. The same patch exports the resulting timelines as MIDI files.

Those MIDI files are manually loaded in a digital audio workstation that takes care of the playback. An additional Max patch, separated from the one that generates the timeline, receives the MIDI information from Reaper and converts it into triggers that in real time randomly extract the instructions for the players. The same patch takes care of the visualisation of the instructions that will be projected on a screen placed behind the performers and the visualisation of the instructions for the performers. In the current scenario the instructions' timelines are therefore generated offline in a process separated from the playback, differently from the solutions implemented in the preliminary tests. This choice was dictated by the necessity of easily testing and adjusting the timelines' paces and densities. On the concert day, the sound engineer will generate a new set of timelines before the performance, to ensure that I will not be influenced by knowing in advance the order of the three main sections.

I have investigated various solutions to visualise the instructions to the players, as the main projection screen is placed behind them. The solution implemented for the performance consists of a TouchOSC layout that receives the instructions from the Max patch, and sends them as OSC messages to seven iPads, one for each performer.

4. Language of the instructions

The instructions used in the performance are written by me and cellist Aino Juutilainen, with some contribution by members of the Septad ensemble. In preparing the list, we were guided by the intention of ensuring variety in the resulting performed actions, as well as by following an intuitive and creative process. The instructions can be approximately divided into the following categories:

- Musical actions, such as 'Make contrasts', 'Play softer', 'Play staccato',
- Actions that suggest a specific interaction with the other players, such as 'Accompany', 'Imitate another player', 'Focus on togetherness',
- Actions based on emotions, such as 'Play sadly', 'Be scared', 'Be brave', 'Be bossy',

- Actions based on non-instrumental sounds, such as ‘Imitate a crow’, ‘Imitate a blackbird’, ‘Imitate a cat’, ‘Imitate a Formula 1 car’,
- Actions based on non-musical, including abstract, imagery, such as ‘Imagine you are a worm’, ‘Make the impossible possible’, ‘Melt’, ‘Think about colours’,
- Actions that suggest the use of the body and/or the voice of the performer, such as ‘Whisper’, ‘Mimic playing’, ‘Sing a song’, ‘Imitate a drunk person in a club’.

5. References

Grip, Joel. n.d. “Klub Demboh.” Klubdemboh.Com. Accessed January 10, 2021. <https://klubdemboh.com/klub-demboh-1>.

McGuirk, Tom. 2010. “Knowing by Hand: Embodied Knowledge in Higher Education in the Disciplines of Art and Design.” <https://helda.helsinki.fi/handle/10138/15278>.

Parker, Evan. 2018. *De Motu*. Lenka Lente.

Pressing, Jeff. 1988. “Improvisation: Methods and Models.” *John A. Sloboda (Hg.): Generative Processes in Music, Oxford*, 129–78.

Libero Mureddu

Born in Milan in 1975 and based in Helsinki since 2003, he has studied composition at the Conservatory "G. Verdi" of Milan and music technology at the Centre for Music and Technology, Sibelius Academy, University of the Arts Helsinki. He is currently doing his artistic doctorate at the MuTri Doctoral School at the Sibelius Academy. In his research, Libero Mureddu investigates the role of embodied knowledge in a free improvisation performance, and how this knowledge can be observed, analysed, and used to develop free improvisation languages. Libero Mureddu's doctorate is generously supported by the Kone Foundation.

A versatile musician, during the past twenty years his musical experiences in the European scene have ranged from contemporary and experimental music, to jazz and popular music. He is currently leading 'Septad' and 'Hexad', two Helsinki-based ensembles that gather together improvisers coming from jazz and contemporary music backgrounds. Other active projects are the duos 'Chamber Music from Mars' with cellist Aino Juutilainen and 'Tiny and Anxious' with flutist Livia Schweizer. Since 2017, he regularly visits Berlin to perform within the local improvisation scene.

His current artistic practice intersects between free improvisation languages, composition, algorithms, and artificial intelligence, to create innovative, unexpected and challenging performative frameworks.

Since 2009 Libero Mureddu is the general manager of the NYKY Ensemble, the contemporary music ensemble of the Sibelius Academy. The NYKY Ensemble is nowadays considered as an important member of the Finnish contemporary music scene.

Active as a teacher, he has taught contemporary and interdisciplinary improvisation at the Sibelius Academy and Theatre Academy in Helsinki. Moreover, he is the Sibelius Academy's representative of the METRIC (Modernising European Higher Music Education through Improvisation) project, a cooperative forum between several European conservatoires that focuses on curriculum development and cooperation in the field of improvisation in higher music education.

www.liberomureddu.com

Septad ensemble

In 2018 I founded the Hexad ensemble, with the intention of bringing together professional

improvisers coming from a wide albeit often overlapping range of experiences, from classical contemporary to experimental and jazz music. In the ensemble's practice the performers are given complete freedom in placing themselves at any point between those different approaches, without any limitation to the musical material they wish to contribute with. Therefore, the ensemble creates and explores in real-time the unexpected possibilities emerging from the coexistence of highly diverse materials. The Septad ensemble shares most of the players of Hexad, and the artistic practice is exactly the same, the only difference being the higher number of performers and the fact that all the members are based in Finland. The performers of the Septad ensemble are chosen among the best improviser from the Finnish scene, they are all coming from different albeit overlapping backgrounds, different generations and nationalities.

The lineup of the ensemble is:

Libero Mureddu: piano, electronics and visualisation, concept and artistic direction,

Livia Schweizer, flute

Mikko Raasakka*, bass clarinet

Veli Kujala, quarter-tone accordion

Aino Juutilainen, cello, visualisation and additional concept

Ville Herrala, double bass

Janne Tuomi, drums and percussion

<https://www.liberomureddu.com/septad>