

Multiple Minds

An audio/visual performance with actant technology

My Artistic Research project 'Tipping Points' is situated in the field of live electronics and focuses on the exploration of tipping points in chaotic processes, related to sonic expression. These topics are investigated through the development of an iterative series of new chaotic electronic instruments, compositions and performances. My practice is thoroughly interdisciplinary and includes the design and building of the instruments, the development of compositional strategies and taking the role of the performer in the eventual piece. The activities related to these elements continually inform each other.

'Multiple Minds' is an audio-visual performance that poses questions about the origins of the creative mind behind the sonic behaviors and images that are produced. The instrument that lies at the heart of the performance is based on three sawtooth oscillators that are cross modulating each other. The recursive nature of this process is expressed through developing patterns, shapeshifting timbres and fragile frequencies all generated from deterministic yet unpredictable origins. Recursivity amplifies the slightest performative input to echo through the instrument, affecting the sound in unforeseen ways. Minor changes of a single parameter could start a chain reaction that completely readjusts sonic behaviors. The combination of a broad sonic lexicon combined with unpredictability suggests that the instrument can be interpreted as having its own form of agency, acting independently from the intentions of the performer. One of the pioneers of recursive electronics David Tudor has described his relationship with his instruments as follows.

"I try to find out what's there—not to make it do what I want, but to release what's there. The object should teach you what it wants to hear" - David Tudor [1]

Throughout the piece, the performer goes into an intricate dialog with the instrument, which, taking inspiration from Marcel Cobussens book on improvisation, functions as actant technology [2].

"[...] the audible result is, to a certain extent at least, unrelated to the corporeal actions of the performers. Hence, they are challenged to react to sonic developments taking place outside of their direct control. [...] Performers and audience share a space of surprises, discoveries, and unexpected sonic results; they encounter the un-fore-seen" - Paul Craenen (Craenen 2017, 115) [2]

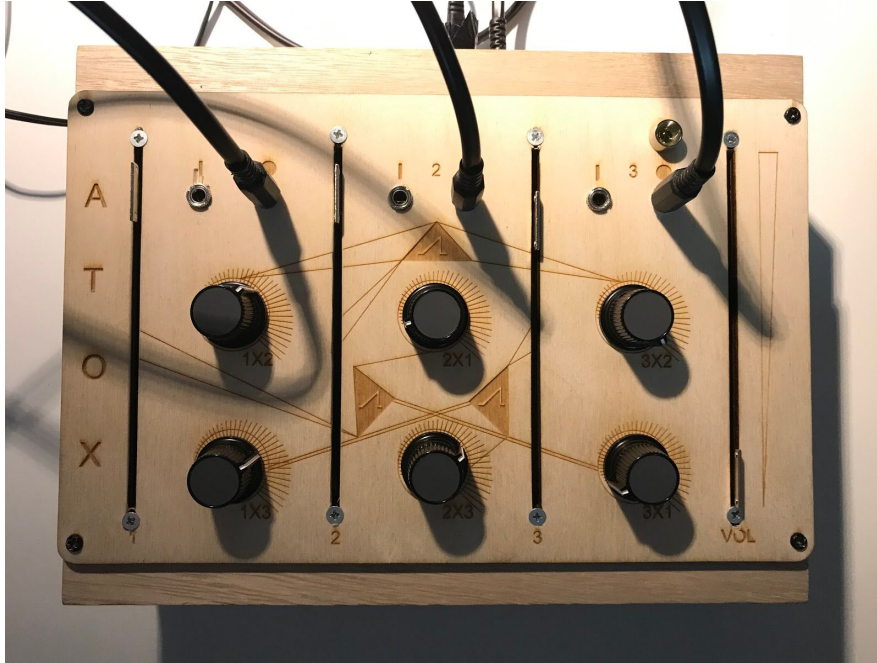
Another way to approach the relationship between the performer and the instrument is to take cues from the writing of Karen Barad and interpret the music and visuals as resulting from the playful *intra-actions* between the performer and the instrument, each embodying their own form of artistic agency [3]. An intricate dance of actions and reactions ensues, in acknowledgement that each step is fragile and irreversible, as the dance itself reshapes the dancefloor.

Practically, the setup for 'Multiple Minds' consists of three connected parts. An analog chaotic synthesizer developed specifically for the performance is plugged into a laptop via a soundcard. Inside the laptop, the sounds are digitally processed through software written in SuperCollider and visualized through software written in Vuo. These digital processes listen to the audio and CV outputs of the synthesizer and react according to its own logic which again complicated the question of the origins of the artistic agencies. The output consists of stereo sound from the soundcard and visuals via an hdmi port on the laptop. During the piece, the performer only engages with the analog synth, the laptop screen mirrors the visuals and is pointed towards the audience. The length of the performance is flexible and can be made to fit circumstances.

The unpredictable and non-linear nature of chaotic instruments forces us to reevaluate the traditional roles of the performer and the instrument. Where classical instruments allow for the development of mastery through rehearsal and repetition, chaotic instruments *refuse* to repeat the same thing twice, turning rehearsals into sonic explorations driven by *curiosity rather than virtuosity*. The instrument is responding to the performer as much as the performer responds to the instrument. The act of playing the instrument *changes* the instrument. Musicianship shifts towards a dialogical model, accepting the quirks and sonic gestures emanating from the instrument as being equally integral to the overall outcome as the intent of the performer.

"The unpredictability of the instrument requires an attitude of obedience and resignation to the system and the sounds it produces" -Toshimaru Nakamura [4]

'Multiple Minds' examines concentrated curiosity and adaptive methods of exploration as key factors in establishing new roles between the creative minds of the human- and the instrumental performer. During performances there are moments when the instrument is left untouched and given space to display its own sonic expressions. At other moments, when the instrument is actively played, its sonic behaviors and responses contain surprises and non-linearities. The instrument doesn't merely execute instructions, instead, it processes performative input through its own chaotic logic. Multiple Minds requires a deep and unaverted attention by the performer, who can not fully rely on the knowledge gained through prior experiences. The instrument has to be explored and discovered anew each time it is performed. The music of the piece itself begs to be uncovered, examined, inspected, extended, diminished and concluded. Performances take the shape of sonic expeditions where instrument, performer and audience explore the ever shifting sonic landscapes together, seduced by the tensions and expressions that are encountered along the way.



The analog chaotic synthesizer ATOX is part of the Multiple Minds Setup. The synth contains three sawtooth oscillators. Each oscillator has a master pitch slider and two knobs determining the amount of modulation of the other oscillators. Although this setup seems rather simple, it is capable of producing an extremely wide spectrum of sonic behaviors.



Multiple Minds Performed during the GRS Fjord Summer Course (June, 2019)

A sound recording of the setup can be accessed via the following link:

<https://www.dropbox.com/s/tgh8ff8r0z45362/Example%20Performance.mp3?dl=0>

A video excerpt of a performance at Blue Rinse can be accessed via the following link:

<https://vimeo.com/367843262/9ae0a4b192>

References

[1] Tudor, D., Schonfeld, V. 1972. "From Piano to Electronics". Music and Musicians. no. 20, 24-26

[2] Cobussen, M. 2017. The Field of Musical Improvisation. Netherlands. Leiden University Press

[3] Barad, K. 2003. Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter. Journal of Women in Culture and Society, vol. 28, no. 3, 801-831

[4] Toshimaru Nakamura webpage: <http://www.toshimarunakamura.com/bio>

Rider for 'Multiple Minds' performance by Tijs Ham at ICL

The following will be brought along by the artist/performer :

- ATOX analog synthesizer
- Laptop
- Soundcard (MOTU Ultralite mk3)

SOUND:

- My output will come from the soundcard: 2x mono jack.
- Short cables from jack to XLR but those will not be long enough to reach a mixer/PA

VISUALS:

- I will send out visuals via HDMI which should be projected behind me
- the screen of my laptop will also be visible for the audience, showing the same visuals



The following is expected to be present at the venue :

- Access to a power outlet at the performance place
- Table (minimum 0.5 by 1.5 meter tablespace) high enough for me to perform standing up.

SOUND:

- PA (stereo + subwoofers)
- DI's + cables to connect my setup to the PA

VISUALS:

- Beamer + hdmi cable long enough to connect my laptop (onstage) to the beamer
- Small light focused on the synth
- Otherwise dark space (only lit up by the beamer & laptop)

+/- 15 minutes setup time and +/- 45 minutes soundcheck time

The performance may contain 'flashing' visuals

The performance will last around 10 minutes