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Multiple Minds

Performance Paper

*Video of presentation can be found _here_*

Multiple Minds

An audio/visual performance with actant technology

Context

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.

Abstract

'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.

The unforeseen

As in much of my artistic work, 'Multiple Minds' is concerned with the *experience of sonic discovery*, shared directly with audiences. In other words, both the performer and audience will be exposed to an **encounter with the unknown** during a performance. These encounters are vulnerable situations, best to be approached with curious, open mindsets and a readiness to experience unexpected twists, turns and surprises.

> *"[...] 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. Rather than considering this as a negative or impractical side effect, 'Tubes' thereby creates a situation of experimentation and creativity. Performers and audience share a space of surprises, discoveries, and unexpected sonic results; they encounter the un-fore-seen" - Paul Craenen (Cobussen 2017, 115) [1]*

While it seems counterintuitive, this type of performance accumulates into a form of **designed surprise**. Although there may be only one human performer present, the situation feels much more like playing a duet. The instrument poses sonic suggestions, reacts to each touch according to its own determination. With each iteration the instrument functions more and more as an **actant technology**, capable of responding to performative gestures in perhaps *disobedient*, but nonetheless *intricate* ways. 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 [2]*

Play

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]. The use of the word *intra-action* instead of interaction, stresses the fact that the sound is the result from the **exchange** *between* the performer and instrument, neither of which are able to impose prior intentions on eachother. The actual sonic output can only be uncovered through the act of play. This requires that the prior intentions of both the performer and the instrument have to be unfinished and open to the suggestions that are offered through the performance.

> *"The notion of intra-action (in contrast to the usual "interaction," which presumes the prior existence of independent entities / relata) represents a profound conceptual shift. It is through specific agential intra-actions that the boundaries and properties of the "components" of phenomena become determinate and that particular embodied concepts become meaningful. " - Karen Barad (Barad 2003, 815) [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.

Multiple minds

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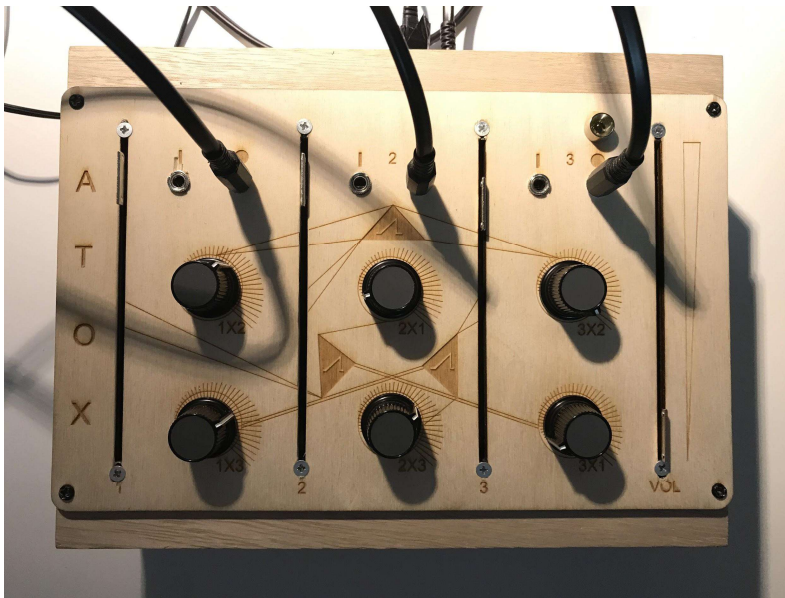
The analog chaotic synthesizer ATOX is part of the Multiple Minds Setup. The synth contains three sawtooth oscillators. Each oscillator has a master pitch slider and two knobs determining the amount of modulation of the other oscillators. Although this setup seems rather simple, it is capable of producing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

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]*

Conclusion

'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. These moments evoke a powerful sense that the instrument is allowed to express its own voice. 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.

References

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

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

[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