Becoming

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'Becoming' recontextualizes a custom playable device as a living entity that responds to both interaction through an analog interface, and audiovisual stimuli detected from the surrounding environment. Using adaptive animations and ambient soundscapes, the piece creates a volatile space that evokes thoughts of transformation, growth, and destruction. It tells the story of a machine grappling with fate and embraces human nature through the eyes of something artificial. The visual component arises through layers upon layers of blood-red lines that coalesce into abstract shapes, mirroring processes of growth and decay. The accompanying soundscape layers mechanical noises with ambient sounds such as human voices from the surrounding space, emphasizing the tension between artificial systems and organic environments. Through its unpredictable behavior, the work challenges the audience to reflect on questions of agency, determinism, and the fluid nature of identity.

Additional Key Words and Phrases: audiovisual art, physical computing, custom software, generative graphics, algorithm, human-machine interaction, digital performance, experimental interface, agency, interactive

1 Program Notes

In an age where the line between human and machine is increasingly blurred, this audiovisual work explores themes of transformation, control, and the interplay between the organic and the artificial. Using a series of re-appropriated analog devices, algorithmically generated graphics, and evolving soundscapes, the piece creates a dynamic space that responds to viewer interaction and the surrounding environment. It utilizes overlapping ideas of machine and human needs to compare, contrast, and deliberately muddle forms of technological, biological, and spiritual being.

The machine's body doubles as a playable device, featuring two interactive control panels that correspond to core human drives and intangible perceptions of reality, depicting a never-ending journey of pursuit.

Fig. 1. Becoming: Custom playable device, 2024.

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The primary device is named after Descartes' famous quote, 'Cogito ergo sum' ('I think, therefore I am'), inviting reflection on the nature of existence and the subjectivity of reality. The name of the secondary device is taken from the Latin phrase 'Stratum Superstratum' ('layer upon layer') in reference to an important alchemical concept: the gradual refinement of a substance through multiple stages of chemical manipulation. The secondary box must be plugged into the first to form a complete rendering through an additional layering process, effectively allowing the machine to "remember" the past.

2 Project Description

'Becoming' is an interactive work consisting of a series of analog devices reprogrammed to algorithmically generate unique audiovisual outputs. This includes adaptive animations that respond to both interaction through the custom machine, and sound detected from the surrounding environment. The piece utilizes a combination of projection and screen displays to create an evolving, volatile space. The indeterminate nature of this entity allows it to be adapted for both installation and live performance through connection to varying sensory inputs including light and distance detection.

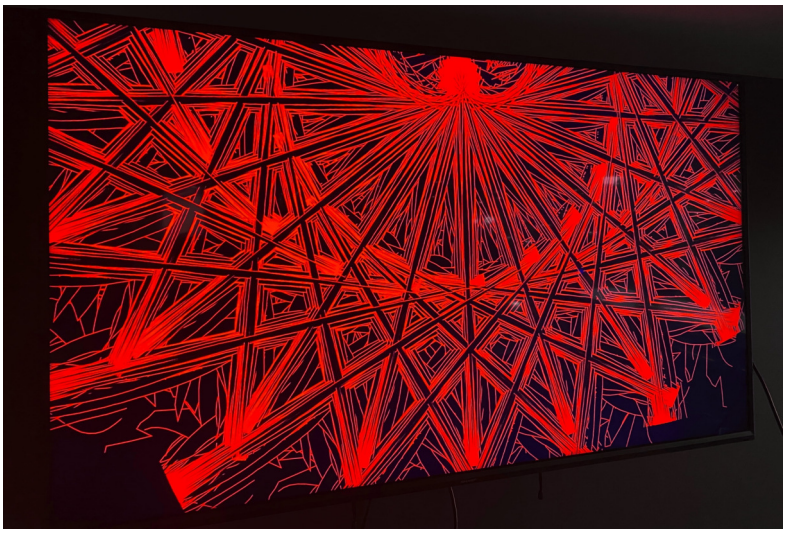

Fig. 2. Graphics digital TV screen display, 2024.

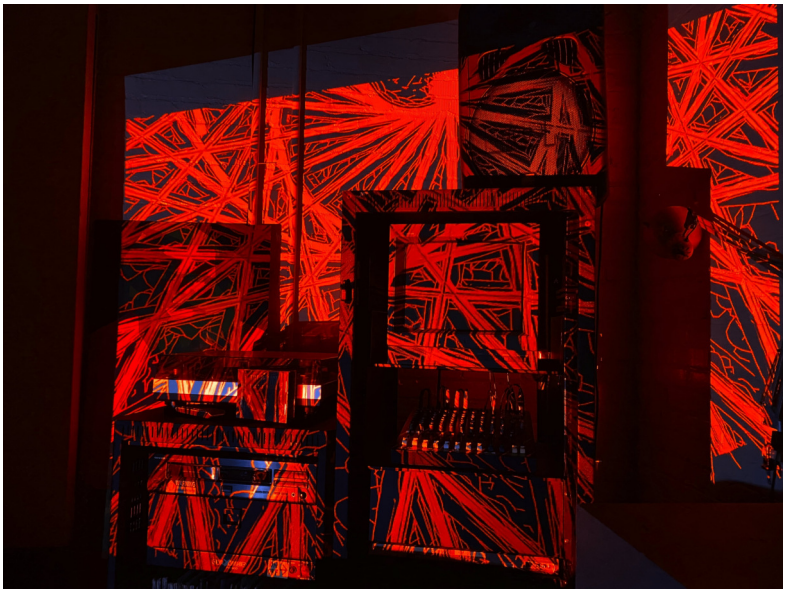

Fig. 3. Graphics projection onto AV screen and speaker system, 2024.

It is through these mechanisms the machine attempts to express itself. The resulting visual arises through layers upon layers of blood red lines that coalesce into abstract shapes, each responding to both the surrounding environment and the viewer. The accompanying audio in turn consists primarily of layered machinery noise, contrasting with the occasional heartbeat.

When a viewer approaches the machine entity, it reacts to the detected increase in proximity with responses such as increased layering of generated audio, a quickening heartbeat, and transformation of the projected graphics. Up close, the viewer can interact with the machine's body and influence its perception of the world directly through a control panel of switches and dials. The machine also responds to organic sounds such as human voices in the surrounding environment, contrasting with the artificial sounds emitted by the machine itself. The entangled nature of this experience prompts the audience to draw connections between the machine's body and their own. It encourages examination of the nature of agency, raising questions about the relationship between our subjective sense of self and objective state of being.

The audiovisual displays are erratic and constantly changing, creating an intensive, ever-shifting space that challenges preconceptions of sentient life. The audience does not have total control over what is produced, guaranteeing a unique viewing experience meant to evoke questions regarding determinism, illusions of control, and the never-ending process of becoming who (or what) one is.

3 Media Links

- Narrated Video: https://youtu.be/WGYg-UNLEUU?si=YKj4n9LjQJNHlhEp
- Video & Audio (no narration): https://youtu.be/ksYax6dD-38?si=5L7ld1cRHcNHOfZt

4 Technical Notes

4.1 Materials/Equipment

4.1.1 Equipment Provided by Artist.

- Computer capable of running Processing 4.0
- Small computer speakers
- Sensor components
- Arduino circuit boards
- Misc. (wires, cables, power supplies, etc.)

4.1.2 Site Specific Equipment.

- Power source (outlet)
- Pedestals or tables
- One of the following
  - Projector
  - Analog TV screen(s)
  - Digital TV screen(s)
- Speaker system/Headphones

4.2 Software

Processing 4, custom script

4.3 Lighting

Ambient lighting around the displayed/projected graphics should be as dark as possible for best visibility. If applicable, the custom performable device should be backlit or placed under focused lighting that illuminates it without compromising the visibility of the graphics.

4.4 Sound

Any amplified speaker system compatible with a computer, or headphones if applicable.

4.5 Installation Details & Dimensions

Set-up is flexible—configuration can range from a simple wall projection or screen to a setup with multiple screens.

- Minimum space (1 analog screen): 30cm x 30cm x 90cm
- Maximum space (Large projection): 3m x 3m x 3m

Example installation configurations:

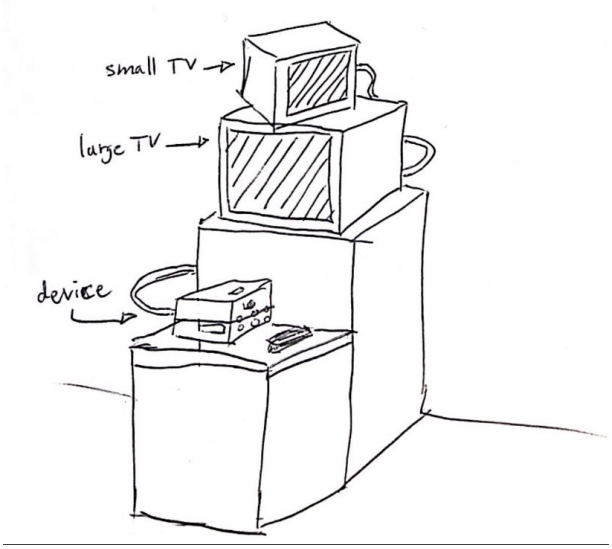

Fig. 4. Installation sketch: 2 analog screens, 2024.

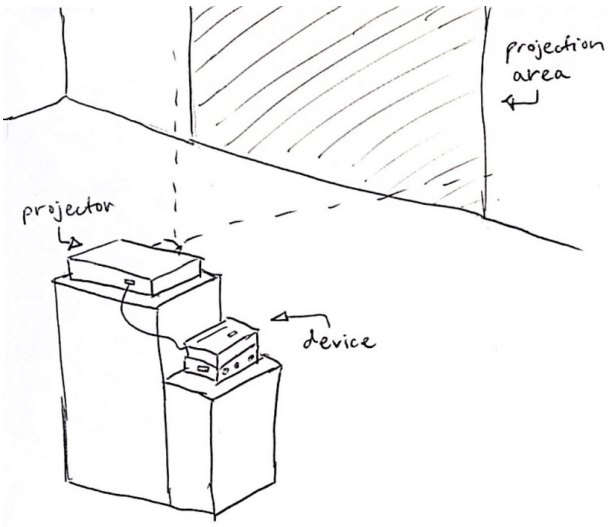

Fig. 5. Installation sketch: Large wall projection, 2024.

5 Acknowledgments

The authors would like to thank Professor Fabian Winkler for his extensive assistance and support in the fabrication of this work.

6 Ethical Standards

This project was independently developed without external funding or sponsorship. The interactive elements of the installation utilize passive sensors that do not record or store personal data, ensuring participants' privacy. The author declares no conflicts of interest related to this project.

References

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