

## Motivation

Contrary to the artist's own suggestions [6], the extension of the visceral body with technological devices in performance artist Stelarc's 'Amplified Body', heightens the (perception of the) relevance of the visceral body [5]. Accordingly, this project is aimed at developing a performance setup, which is specifically aimed at heightening the perception of the interaction between the visceral body and the technological components of the performance setup itself.

## Goals

- Analyze Stelarc's 'Amplified Body' from a media theory perspective.
- Develop a performance setup for sound synthesis with biometric data, in response to this analysis.
- Define an appropriate sound synthesis method for the developed performance setup.

## Analysis

- From aposthuman perspective the sound in Amplified Body is prosthetic [2].
- A sonic prosthesis can be considered as a medium [1].
- Since transparent immediacy cannot be achieved, the interest of performance with sonic prosthetics should lie in the interaction between body and its technological extensions (heightened signs of mediation --> hypermediality) [1].

## Technical developments

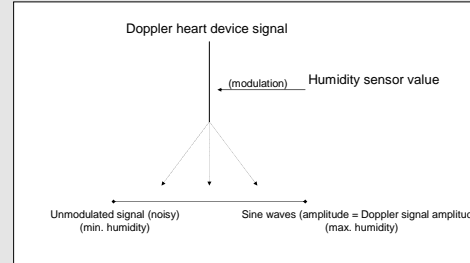
- A PVC performance suit equipped with a Doppler heart measuring device, humidity sensor, loudspeaker and sensor interface was developed.
- This suit mediates its own interaction with the body; sweating & heart rate increase because of the suit --> these parameters are registered by the sensors --> the synthesized sound is based on this data.

## Realization & Practical Application

Photos of the suit in proto typing stage and in test performance setup (hanging from metal bar installed in door frame)



Sound synthesis algorithm used in test performances



Application of the suit in performance installation 'PLAY & PRODUCTIVITY' KipVis Art Space, Vlissingen, NL, 2009

- The signal of the Doppler device is modulated by the registered humidity level. When the humidity is lowest, the Doppler signal will be directly transmitted. When humidity is highest, sine waves with an amplitude according to the Doppler signal are synthesized.

## Experiments

- Informal performance experiments were performed in front of a small audience.
- After several experiments, the humidity sensor was placed inside a small plastic box and covered with cotton wool to extend the amount of sweat (and time) it takes to reach maximum humidity.
- Spectator feedback suggested that the addition of a bodily interaction parameter, which is both clearly visible (touching the metal bar in the test performance) and leads to an obvious sound change (switching the sound on and off), heightens the overall perception of the interaction between body and sound.

## Conclusion

- The developed PVC suit can effectively be used in performances with sonic prosthetics mediating their own presence.
- Future developments will include theorization of, and experimentation with the experienced proximity of the visceral body and its sonic prosthesis, drawing from E.T. Hall's theory of Proxemics [3] and N. Katherine Hayles's concept of the posthuman body [4].

## References

- [1] Jay David Bolter, Richard Grusin, *Remediation: Understanding New Media* (Cambridge MA, MIT Press, 1999)
- [2] Gregory Bateson in Steve Dixon, *Digital Performance* (Massachusetts: MIT Press, 2007)
- [3] Edward T. Hall, *The Hidden Dimension* (Garden City, N.Y.: Doubleday, 1966)
- [4] N. Katherine Hayles, *How We Became Posthuman, virtual bodies in cybernetics, literature, and informatics* (Chicago: University of Chicago Press, 1999)
- [5] Amelia Jones, Stelarc's technological 'transcendence'/Stelarc's wet body' in Marquard Smith (ed.), *Stelarc, the Monograph* (Cambridge MA: MIT Press, 2005)
- [6] Stelarc, 'Prosthetics, Robotics and Remote Existence: Postevolutionary Strategies', *Leonardo* 24 (1991), pp. 591-595.