

The Echo I Touch

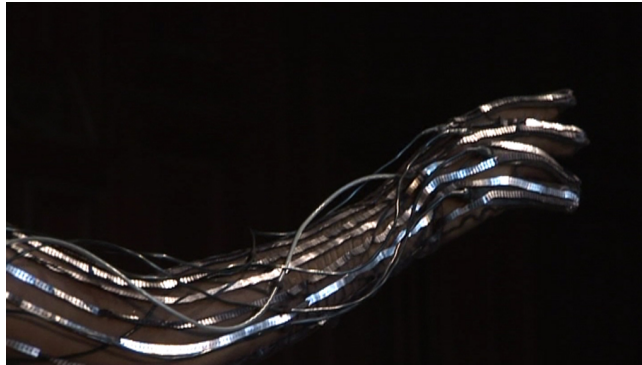
De- & Embodiment in spatial Vocal Performance Art

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"The disembodied voice speaks to me, sings to me, enchants me, screams for my attention as if it is asking: listen to me, hear me, feel me! Don't be 'afraid of vocal experimentation! Come and sing with me! Touch the riddle of my body! Feel the skin of my resonance! Dance with me in the space! Throw me in the air and catch me again! Together we will be in the momentary of voice, body and space. I welcome that invitation, as much as I can."

Have a vision, be fearless, experiment, play!
Michel Waisvisz



SensorGlove

Interface in Vocal Art Performance – a Hybrid in the Aesthetic Perception

I would like to present and share early-phase research and receive feedback and discussion regarding *De- & Embodiment in spatial Vocal Performance Art* by means of gestural communication via Sensor interface.

When using technology such as gesture-controlled live electronics, an expanded field of vocal art performance opens up with the potential to reveal a multitude of vocal extensions and compositional strategies that question the relationship between body, gesture and sound as we know it. The boundaries between the human voice, on the one hand, and the computationally manipulated, bodily and in realtime controlled, but yet disembodied voice, on the other, become increasingly blurred.¹ Through this practice a hybrid in the aesthetic emerges. Motion sequences, which are visible, can add an additional meaning to the sound creation. The gestural communication can serve the understanding, but can also contrast it, put it in a different light or even create a false conclusion (Trugschluss).

In this hybrid field I am looking for a framework offering modalities for gesture composition in spatialized vocal processes of embodied and disembodied voice. In a further step, this conceptual framework is also intended to provide a basis for gesture compositions in the field of gestural vocal live performance and artificial intelligence.

¹ Compare Franziska Baumann: *Interfaces in der Live Performance*, in Harenberg/Weissberg: Klang (ohne) Körper, p.75: "Die Grenze zwischen natürlicher und elektronischer Klangerzeugung verschwimmt. Der Körper kann nicht mehr alleiniges 'Interface für die Lesbarkeit der Musik sein' [The boundary between naturally and electronically generated sound becomes blurred. The body cannot be the sole 'interface for interpreting music' anymore.]

History of the SensorGlove

My special focus lies on the application of gesture-controlled live electronics, namely the SensorGlove, the first version of which I built in collaboration with Frank Baldé and Jorgen Brinkman 2001 at STEIM, Studio for electro-instrumental music, Amsterdam. Their philosophy of body-close electronic instruments corresponded to my idea of combining electro acoustic composition & live processing with vocal performance on stage without being tied to a mixing console and faders. As I experience gestures as musical extension of the voice, I opted for an interface with sensors, built into a glove.



STEIM's SensorGlove & Belt
Krakau AudioArt Festival 2005

Since with the years the possible amount of processed data could be realized on smaller and smaller chips, it was possible to realize the former SensorLab application on one small Arduino chip. In 2016 the live electronic equipment has been completely new built from the bottom by Berne based Electro engineer Andreas Litmanowitsch and Arduino Programmer Stephan Rothe. If I had to wear additional to STEIM's SensorLab Glove a belt with several boxes, it has become possible to fix sensors and all electronic parts in the SensorGlove itself. This allows me to switch more flexibly between myself as an acoustic singer and a singer with live electronics.



SmartGlove Torun- PL, 2017

Another advantage of the new application is that with the new equipment I independently can compose gestures variabilities coupled to the sound process. With the old SensorLab software C++ every small change of compositional ideas between gesture and sound I had to let reprogram by programmer Daniel Repond. The STEIM's software JunXion endows me with great flexibility and playfulness regarding compositional ideas of gesture and related sound control and creation as I can compose the mapping of gestures and connected sound process myself. Nevertheless, even if it is possible to technically implement every idea we imagine, the respective surfaces of software guide our creative thoughts and form part of the respective "digital score"².

² Craig Vear describes "The Digital Score" as a paradigm shift from a place of documentation to a

Interface as a BlackBox

Digital instruments and their respective interfaces are, with regard to gesture and sound, to a certain extent *Black Boxes* as the connection between gesture and sound is random and can be arranged freely. In the case of interface applications which permit gestural control, they force the performer to consciously opt for an artistic decision concerning relationship between gestures, sound production and control. Whether a poker-faced musician with a laptop generates high-energy music or a performer stages an imaginary sound ballet by using sensors: the connection between gesture and sound no longer reveals itself to the audience through the 'surface'.

Interface as an Object

The SensorGlove interface itself creates an aura that creates certain expectations. The visual appearance creates affordances of inherent purpose, expected function and intention of the object itself.

Sensors and their respective expressiveness

To a certain extent the specific characteristics of sensors and their respective expressiveness ask for certain gestures. For example with an accelerator it may be difficult to initiate precise controlling over a continuous linear parametrization. As this sensor measures acceleration it is better suited to hit something on or switch off with a gesture whereas for example with an ultra sound sensor one can measure something precisely within a linear distance.

This interplay of 'necessary movements' and communication of ideas through music and gesture opens up various artistic perspectives on body sculptures³ in movement and sound.

Sensor Interface as an Instrument or Medial Body Extension

Over the course of centuries, we have become used to a certain kinds of relationships between sound, the instrument and what we see in a concert. On a violin, the pressure and speed of the bow plays a major role in regulating the volume. The interpreter's images of movement and gestures, which are linked to the instrument have been established. In the process, the body itself has become the interface to the 'interpretability' of the music.

Depending on the characters of gestures and related sound processes during a performance the SensorGlove Interface oscillates between instrument and body extension. As an object with its visual appearance it may refer instrumental character or a medial extension of the body. When I use instrumental gestures such as stroking, plucking, beating, the instrumental character comes to the fore. When the imaginary of voices in space and my physicality meet in gestural communication, the SensorGlove is rather an extension of the body.

The SensorGlove is an interface that I have to practice to articulate preconscious musical intentions, in the field of creative intention, acquired praxis, instinct, intuition and the magic of the moment. Technical processes have to be transferred to body-consciousness and I have to know all possible technical traps and mistakes in order not to fall out of the creative flow of making music during a performance.

space for creativity. He says that older traditional methods of score.

See Vear, Craig. 2019. *The Digital Score: Musicianship, Creativity and Innovation*. London & New York: Routledge

³ The term "body sculpture" defines choreographic, instrumental geometrical and meta ideas of gestures.

Voice as a Special Case

The voice is in musical sense a special case as it provides us our most physical instrument without an external interface, while instruments are always used as a medial extension of the body. The breath in the function of the exciter is mediating between internal and external space of the human body. The interior of the body acts as resonance space, which is projected into the external space.

The acousmatic and spatialized voice opens up a more radical vocality than that of the acoustic voice alone. The voice decoupled from the body, from the person, could be seen as a new imaginary persona. The performer lends his or her body to the voices released into space. These voices are not only a sound emission of the performer's body, this disembodied voices may produce an imaginary body, a vocal double: bodyless voices in the room invite the listener to conjure up various imaginary bodies. These imaginary bodies can act as invocations brought to life by certain attitudes, gestures, facial expressions, hand, arm, and shoulder movements, as well as by the acoustic gestures that go beyond body images and visible attitudes. It is a virtual experience in which the vocal bodies created, respectively the echo of my own voice can be touched in space. The interactive technology, the interfaces, serve, among other things, to leave voiced fingerprints, or to express several acoustic personalities and manipulate them vis à versa.

In this sense I would like to claim that in interactive interface performance a combination of third person perspective (in my case the imaginary vocal sounding body of the disembodied voices) and first person perspective (in my case me as a singer) is fundamental to reveal the position between body and sound.

The second person perspective would then be the relationship of me as a singer to the vocal body that is created in virtual space. This is done by composing gestures which locate my own body and gesture movement in the environment, so that I understand the vocal sound objects and their movements in space quasi physically as the action of a counterpart. This ego-you relationship may provide a framework for the gesture as a communicative act or act of social interaction, entertainment and intentionality.

Myths of Disembodied Voices – The Echo I Touch

In the myths we know disembodied voices such as those of Sybillen, Sphinx, Narcissus and Echo. Imaginary bodies can act as invocations brought to life by certain attitudes, gestures, facial expressions, hand, arm, and shoulder movements, as well as by the acoustic gestures that go beyond body images and visible attitudes. The nature of these vocal sound bodies, however, depends on the reception of the viewer, or listener.

As a singer I quasi lend my body to the voices released into space. The interactive technology - the interfaces - serve, among other things, to leave voiced fingerprints, or to express several acoustic personalities and manipulate them reciprocal. Therefore disembodied vocal bodies remind us that the imaginary, the phantasy, is not only the result of a spiritual disorganized attitude, but always also an embodiment of it. The Echo I touch.

De- & Embodiment in spatial Vocal Performance Art ...and the attempt to classify modalities of gesture composition for live electronic interfaces

Spatially expressed gestures and the sound processes coupled to them allow for many relationships of vocal embodiments and disembodiments and open up multi-layered staging categories and parameters of gestures controlling vocal sound or compositional parameters.

Based on my earlier categorization of gesture qualities result from instrumental, geometric, choreographic gestures and meta ideas I would like find possibilities to evaluate and categorize the shifting nature of gesture qualities between embodied and disembodied voices.

- Gestural concepts of acoustic instruments: stroking, beating...
- Gestures as embodiment of meta ideas: stirr, show, throw, sweep, wipe
- Geometric gestures: moving along lines, raising and lowering arms, etc.
- Choreographic game: quasi logical contents that are broken and contrasted again and again

How can they convey meaning in a new imaginary way apart from instrumental, gestural, geometric and meta-idea gestures? Is it about what the gestures mean or what they do with the recipient? Is there a difference between act and meaning?

What are the aspects of shape-shift between 1st, 2nd and 3rd person perspectives within my imaginary realm created through making music?

What could be a possible approach and development of modalities of such relationships which are conveying the meaning of the act. How do these relate as journeys of interwoven connections and meanings?

How can a hierarchy in framework be developed in this hybrid system?

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