

# Title: Breathing III

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Additional Key Words and Phrases: trauma-informed practice; bilateral coordination; embodiment; wearable gestural performance

## 1. PROGRAM NOTES

*“Time is the objectification of a biological organism’s act of breathing, which is sensitive and conscious” [1, p. 25]*

Breath is more than survival—it is memory, movement, and connection. *Breathing III* is the final piece in a three-part series that externalizes emotional responses to trauma, exploring the body’s search for reconnection and resolution.

Through midline-crossing and sequenced movement patterns, the performer traces a path from psychological fragmentation to unity. MiMU datagloves capture gestural movement in real time, transforming hand and arm motions into a layered soundscape of live vocal sampling. Open-hand gestures extend outward and draw inward, mapping to sustained melodic lines, while bird-like formations—fingers flexing and unfolding—trigger harmonic layers and spatialized echoes. Prayer-hand movements send reverberant waves through the sound field, reinforcing themes of unity and self-reintegration.

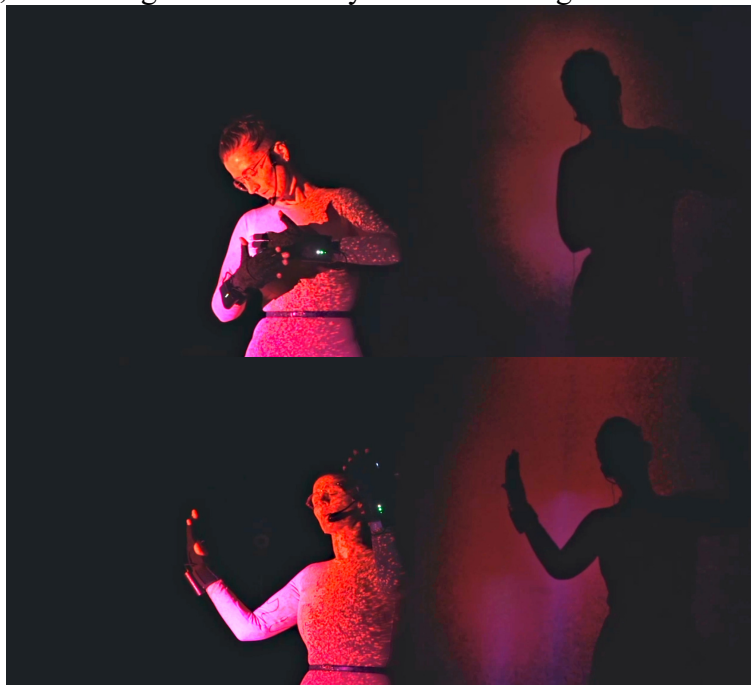


Fig. 1. Projections of the performer showing movements referencing animist practices and mimicking shadow puppetry/against the firelight vibe.

Real-time particle cloud projections, generated from movement data, swirl and converge around the performer, evoking shamanic ritual and animist traditions.

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As breath, movement, and sound merge, *Breathing III* invites the audience into a space of transformation—where embodied memory dissolves, and a new sense of self begins to take shape.

## 2. PROJECT DESCRIPTION

*Breathing III* is the last work in a three-part series (*Breathing I-III*) that externalizes emotional responses to trauma through breath and bilateral coordination [2], [3] in multichannel audio environments. Bilateral movement techniques, widely used in trauma therapy [4], [5], engage both hemispheres of the brain, promoting bodily unification and focused attention [6], [7], [8]. This work represents reconnection and preliminary emotional resolution through midline-crossing and sequenced gestures derived from bilateral coordination and animist practices [9], [10], [11].

*Breathing III* integrates wearable gestural control with real-time audio and visual processing. The performer wears datagloves [12], [13] to map hand and arm movements to sound transformations in Max [14] and Ableton Live [15]. Fig. 2 shows the data and sound flow.

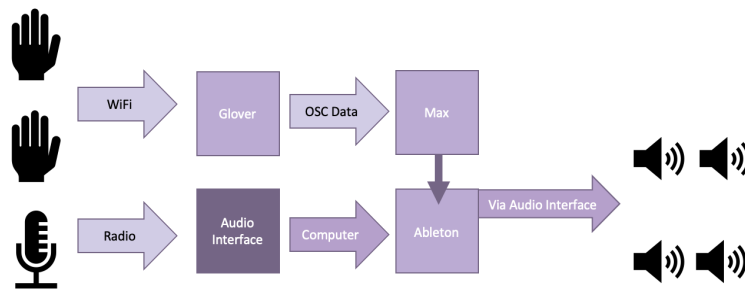


Fig. 2. Projections of torus meshes over the performer.

Gestures in *Breathing III* are choreographically designed to represent the transition from mental fragmentation to integration. It incorporates emblematic gestures — such as open hands, one-finger point, and so on — to harken bird-like formations, which are sonically linked to melodic and animalic vocalizations. Open-hand gestures, performed with both hands extended outward and slowly drawing inward, are mapped to sustained melodic vocalizations, representing emotional reintegration. Bird-like formations, where the performer's fingers mimic the motion of a bird's wings through controlled flexion and extension, trigger harmonic layering and spatialized echoes, symbolizing transcendence and self-reconnection. The prayer-hand gesture, where both palms press together at the chest before extending outward, initiates deep reverberant textures, reinforcing themes of unity and resolution. These movements collectively act to symbolize emotional reintegration and engage the performer's and audience's sense of physical and emotional presence.

The multi-channel spatial audio system amplifies these gestural interactions, allowing breath-derived sound elements to move dynamically across the

performance space. Table I contains the tech requirements from the venue and artist.

Audio and visuals reference magical/shamanic undertones through the real-time generated projections cast over the performer and produced through the data captured from datagloves. These particle cloud visualizations converge and explode around the performer to reinforce emotional and spiritual reconnection themes.

*Breathing III* contributes to NIME by demonstrating how trauma-informed practices, specifically bilateral coordination, symbolic gesture, and embodied sound control, can be adapted into a live gestural music interface that prioritizes emotional and psychological reconnection. Rather than simply using the interface as a tool, *Breathing III* positions the device as a co-agent shaped by long-term use and the performer's bodily awareness. This aligns with techno-animist frameworks, challenging the notion of instrumental neutrality and asserting that wearable interfaces evolve through long-term embodied use. The choreography (featuring open hands, bird-like gestures, and prayer formations) derives from symbolic movements grounded in trauma recovery and animist ritual, reinforcing the link between gesture, meaning-making, and healing. This work and the research behind it advance NIME discourse by integrating personal ritual, embodied performance, and wearable technology, highlighting how interfaces can support both artistic expression and emotional reconnection.

Table I. Performer requirements.

Channels:	4-10
Space required	Solo performer, roving 1-2m
Equipment Requirements from Venue	Small table or table space for electronics Projector HDMI connection Snake to receive audio outs Wireless microphone, if possible
Performer to bring	Audio interface Computer Wireless Mic System (662-686M frequency band if allowable in this region) Datagloves

Source: Performer requirements

### 3. PERFORMANCE NOTES

This piece is designed for live performance. The performer manipulates sound and visuals through gestural control, using a 4–10 channel circular speaker setup with real-time audio and visual projection processing.

### 4. MEDIA LINK(S)

- Supplementary file provided in CMT.

### ETHICAL STANDARDS

This paper conforms to NIME's Code of Practice on Ethical Research. Funding was received from the University of Melbourne for this project. The creative output of this research deals with sensitive content and was conducted with specialist guidance. Audience members were informed of this content prior to performances. Furthermore, performances were open/relaxed, so that any person could exit if necessary.

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