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The mi.mu Gloves: Finding agency in electronic musical performance through ancillary gestural semiotics

Technological innovation has revolutionized the ways in which we consume music. While most of these applications have contributed to the dissemination and accessibility of music, live electronic musical performance has inversely become increasingly disengaged from its audiences. Technology prioritizes the aural components of performance over the visual, despite many scholars who assert that both senses play vital roles in our ability to communicate (Davidson, 1991). Electronic equipment creates a visual barrier between the performer and audience, which indicates that a listener is a witness to rather than a participant in a musical experience. Additionally, large synthesizers bind the performer to a stationary position on stage so they can control the audio. While gestures are required to change the musical effects on a synthesizer, these movements are divorced from any semiotic significance (Iazetta, 1997). These restrictions on a performer's space and movements mitigate ancillary gestural semiotic communication. Recognizing this disconnect, Imogen Heap and a team of engineers developed a set of technologically enhanced MIDI gloves that allow a performer to sculpt music through gesture and movement (Heap, 2013). The gloves, called mi.mu gloves, track a performer's spatial and temporal inflections to filter, parse, and add effects to music during live performance. However, the mi.mu gloves do not create a gestural syntax by ascribing sounds to particular movements; rather, they are programmed to reflect the unique timbral pallet and physical language of individual performers. In this way, the artist's body becomes a techno-biological instrument. This enhances a performer's every movement, transcribing the rhetoric of their gestures into an aural experience. Musicians, whose movements are normally dictated in part by the instrument or equipment, are given a certain agency over their body. Additionally, the location-oriented functions of the gloves allow the performer to become the architect of their space. This provides an additional layer of autonomy that can only be achieved through the use of the mi.mu gloves. As an audience member begins to recognize the aural topography of the stage, they enter a spatial world created by the artist through gesture. A commonly cited metric for agency in performance is the ability to improvise. While performance captures the fleeting and transient nature of music, improvisation asserts an agency over that time when live performance contrasted with its recorded counterparts. Because the mi.mu gloves use the organic gestures of an artist to generate sound, musical improvisation becomes an intuitive practice referred to as "cognitive embodiment" (Godoy, Kozak, Nymoe, 2011). Transitively, the body becomes a vessel for claiming time. By creating a simulated aural terrain and enhancing improvisation through cognitive embodiment, the mi.mu gloves have redefined what it means to have agency in live performance. In granting the performer authority over their body, space, and time, the audience becomes an active participant in the experience of live electronic musical performance through integrative communication techniques (Forde Thompson, Graham, Russo, 2005). Through the use of the mi.mu gloves, artists exhibit the significance of gesture in facilitating an ancillary dialogue. The mi.mu gloves allow the performer and

audience to construct a mutually recognized aesthetic landscape, created by ancillary gestural semiotics, that grants the performer agency over their body, space, and time.

Works Cited

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