VRITUAL AV

Tactile Micro interface
By Steve Gibson

VRitual AV performance at IKLECTIK London. Photo by Jonathan Crabb.

PERFORMANCE HISTORY

April 5, 2024 - Performance at Sender, Zurich

October 14, 2023, 404 Festival, National Arts Center, Mexico City

August 30, 2023, The Glass Room, Edinburgh Napier, Audio-Mostly 2023 (winner of Best Music Performance)

November 6, 2022, Iklectik London, Live Visuals Book Launch Afterparty (Premiere)

August 24, 2022, May 9, 2023, September 6, 2023, Northern Dance Newcastle (Live Shoot Performances)

VRitual AV 404 Festival, National Arts Center, Mexico City. Photo by Nancy Duran.

VRitual AV performance at Audio-Mostly 23, Edinburgh. Photo by Lucy Middleton.

CONCEPTUAL SUMMARY

1. Overview

VRitual AV uses the Leap Motion and an iPad to enable small-area gestural control of audio-visuals. It uses as few technological resources as possible in a limited spatial area.

2. Performance Aims

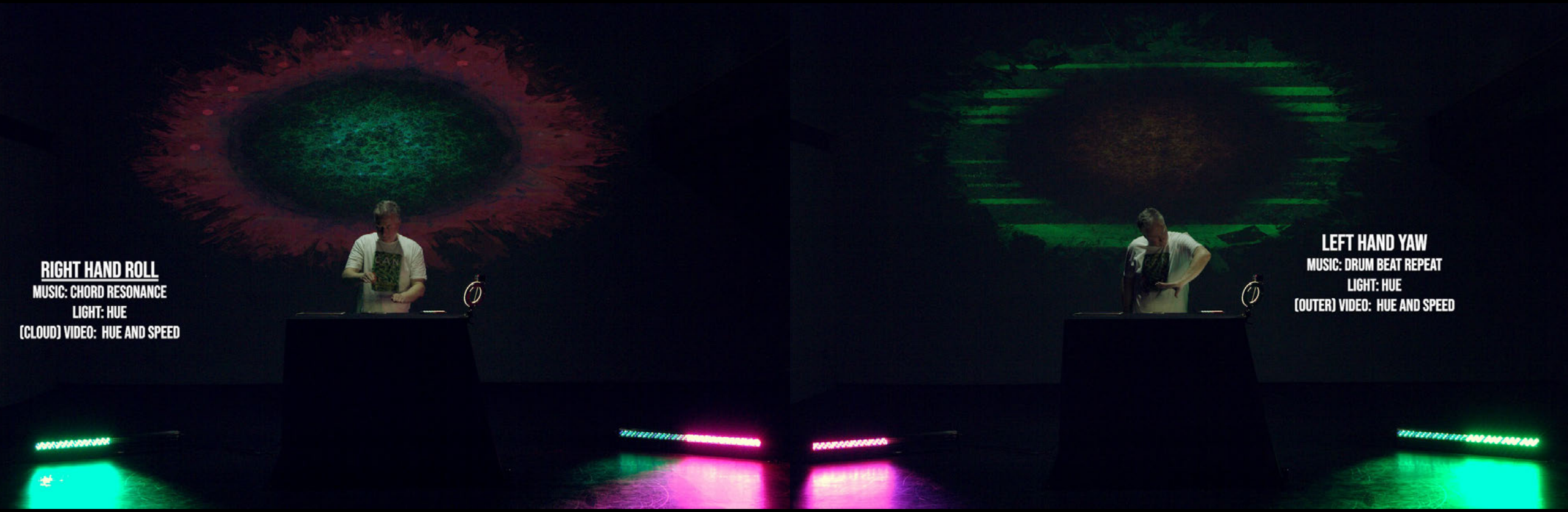
The key aim is to create a tactile micro interface that is easy to use and is easy to transport. The interface is a solution for older body-based performers who may physically struggle with larger-area interaction.

A secondary aim is to provide a model for gestural control of mixed media in a single form that is repeatable, but complex enough for genuine expert performance.

VRitual AV shoot at Northern Dance Newcastle. Photos by Liam Hardy.

SYNESTHETIC INTERFACES

"VRitual AV builds on my previous work in synesthetic interfaces... In short, the gestural actions have matched audio and light response that are both repeatable and logical (i.e., hand height to music note and light hue), while at the same time the number of gestural interactions is substantive enough to make the interface complex enough for a genuinely satisfying performance by an expert performer. The deliberately introduced possibility of error via multiple related gestures and a lack of melodic quantization... creates a performance tension that enhances the liveness of the digital performance experience. In *VRitual AV* the performer can caress audio-visuals in real-time, creating a mixed-media experience out of thin air." (Gibson, 2023)



VRitual AV shoot at Northern Dance Newcastle, with captions for gestural interactions. Photos by Liam Hardy. For a version of *VRitual AV* with captions for all gestural audio-visual mappings see https://vimeo.com/831244287

SOUND AND VISUALS

VRItual AV deliberately diverges from much live audio-visual work in which the performer sits behind a desk and controls audio-visuals by interacting with a traditional computer interface. The computer is deliberately hidden, and the interface is the contained within the gestural actions and movements of the performer's body.

VRitual AV consists of four sound and video sub-pieces in different audio-visual styles. Improvisation using the Leap Motion and the iPad allows for spontaneous performance variations. The sound of *VRitual AV* is deeply steeped in the history of electronic music, with influences from the Berlin-school of electronic music (Tangerine Dream), 90s idm (Aphex Twin), and newer forms of experimental electronica (Son Lux).

A key element of the sound of *VRitual AV* is the "liveness" aspect of the performance. The melodies are played in real-time, and the effects are added and manipulated according to the likes of the performer. Due to this liveness a tension is created, as the audience can see and hear the results of my gestural actions, and I am aware that errors are possible.

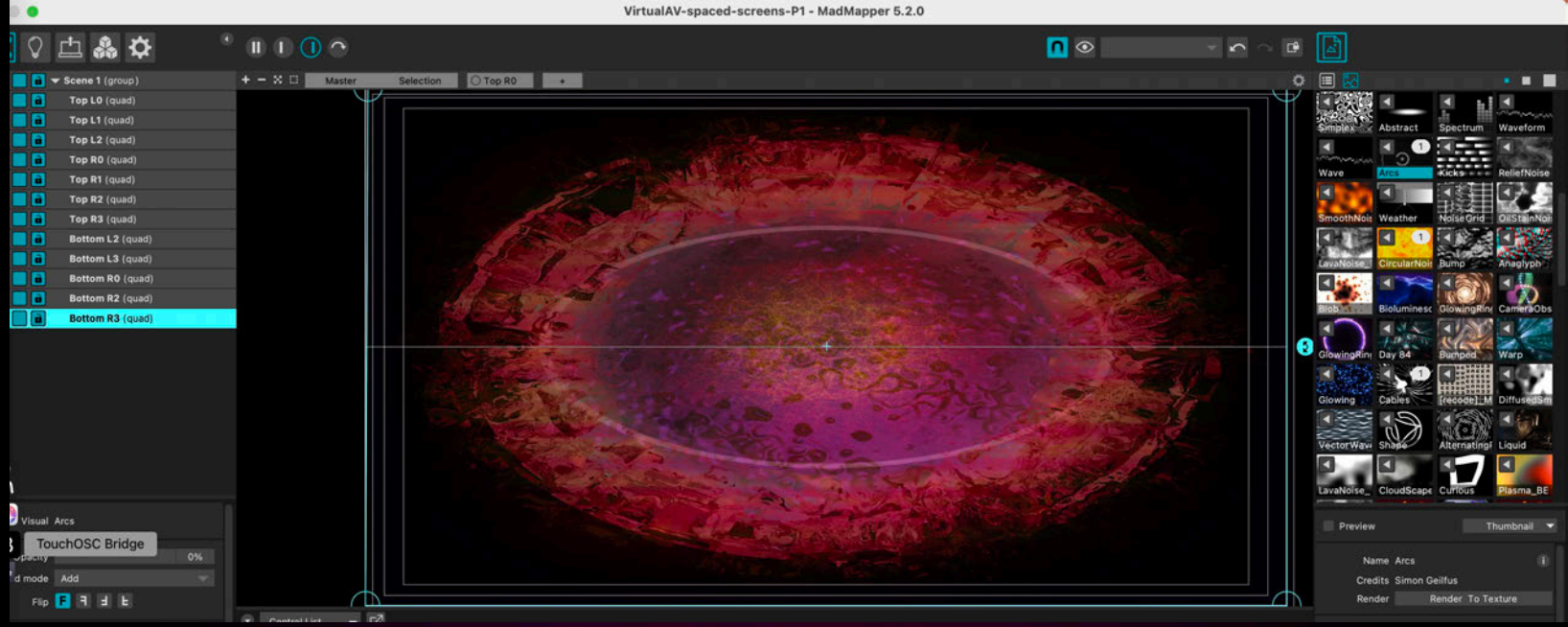
VRitual AV at the 404 Festival, National Arts Center, Mexico City. Photos by Nancy Duran

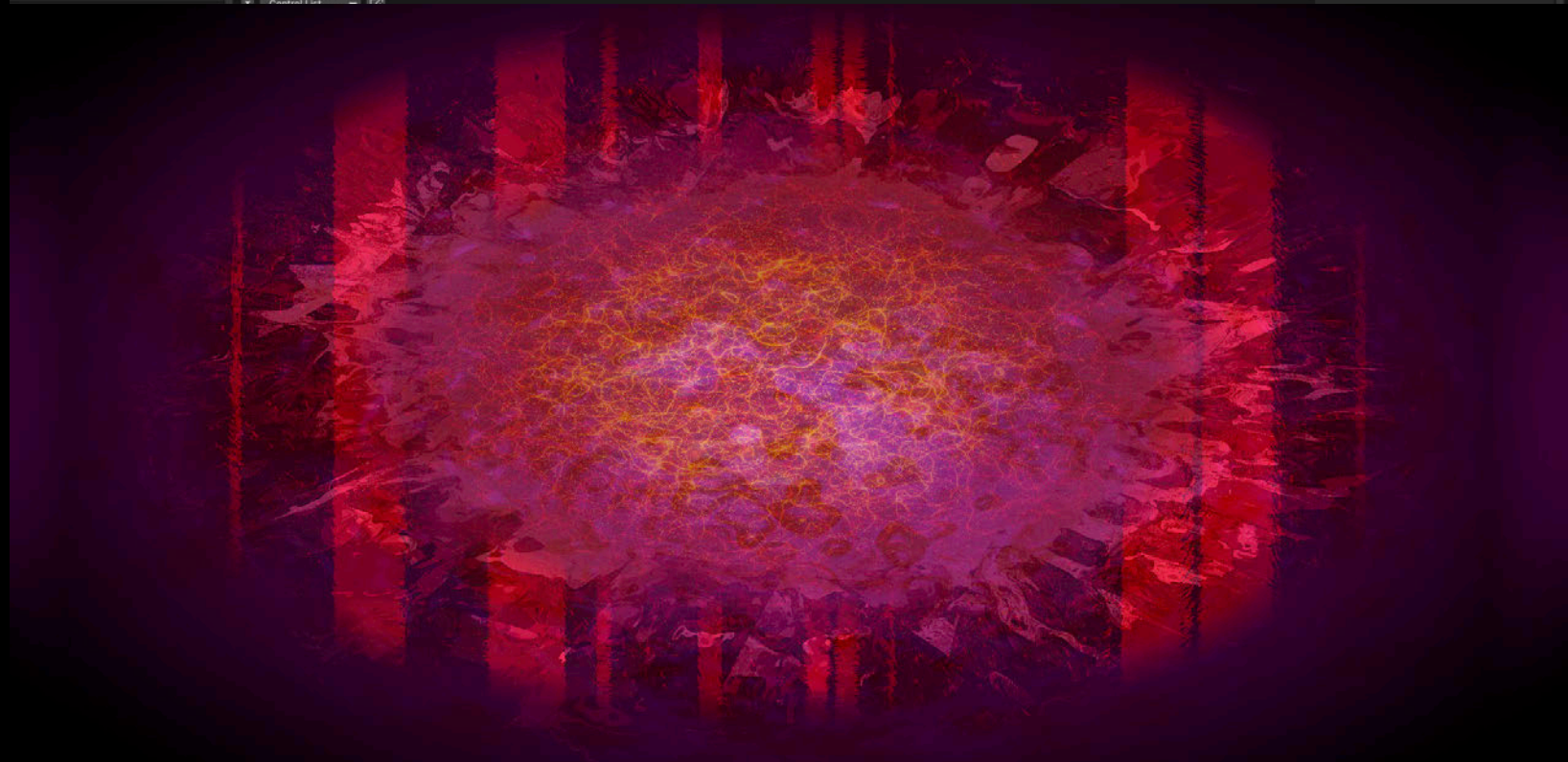
SOUND AND VISUALS

The visual world of *VRitual AV* is informed by my interest in synesthesia (see Gibson, 2013). All visuals and lights have matching colours as well as matching effects related to the audio interactions.

The visual element is produced within MadMapper, and apart from videos matched to the occasional vocal and film sound samples, I have deliberately used my variations on default Mad Mapper Materials. The LED lights are programmed in LightKey and are matched precisely to particular audio-visual effects.

The visual world is therefore primarily abstract, with the interest lying in how the dynamic control with the Leap Motion shows corresponding movement in the visuals and lights that is similar to that in the music.



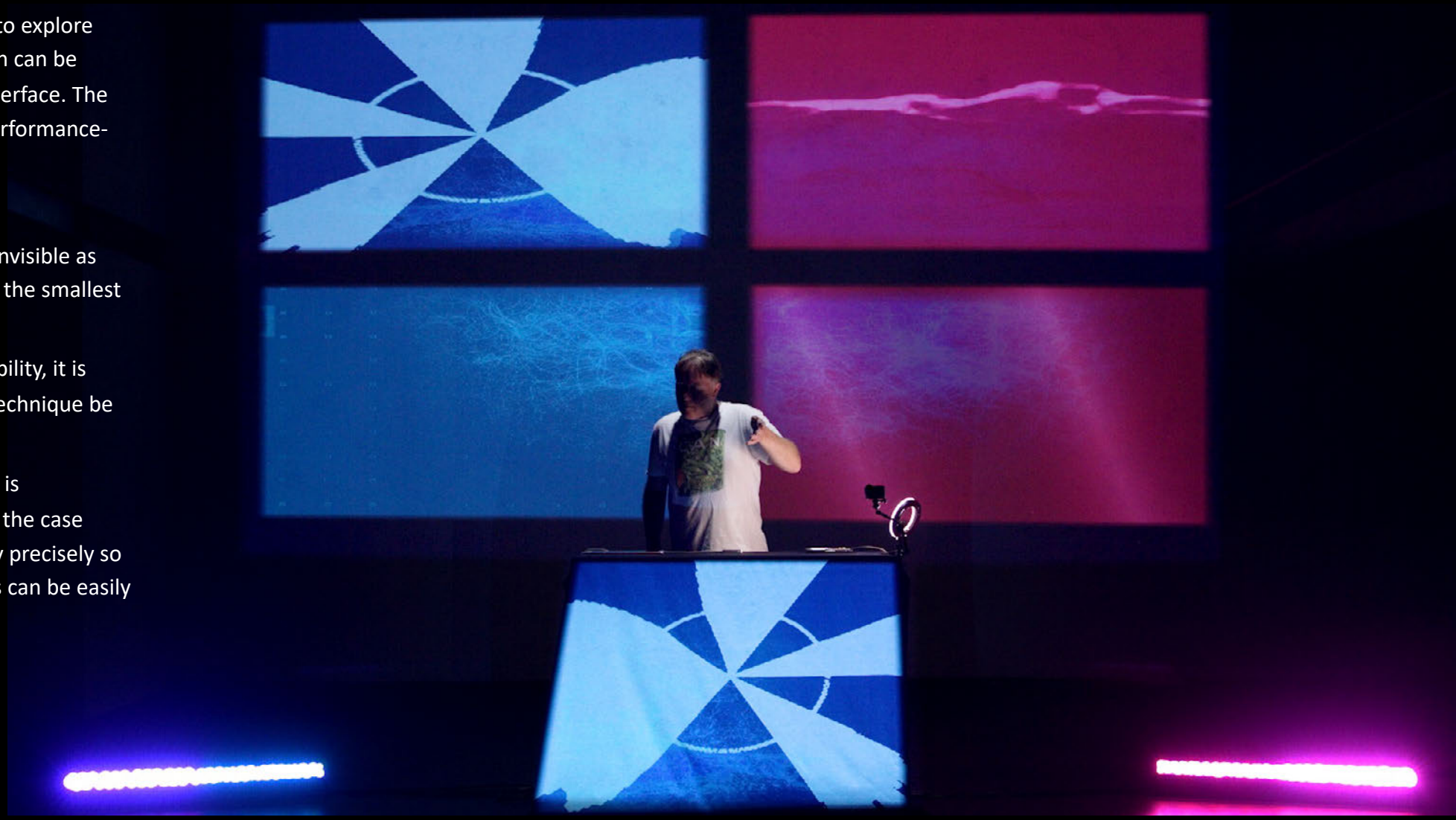


Top Over: MadMapper interface for one of the sub-pieces
Bottom Over: MadMapper Screen output

PERFORMANCE CHALLENGE

The key imperative for *VRitual AV* is to explore how complex audio-visual interaction can be achieved in the most unobtrusive interface. The goals are both design-related and performance-based:

1. The system is designed to be as invisible as possible. This is realized by using the smallest devices available.
2. For the sake of performance legibility, it is essential that the performance technique be transparent.
3. It is crucial that the performance is perceptively “live.” For this to be the case gesture and touch is defined very precisely so that connections to audio-visuals can be easily perceived by the audience.



VRitual AV shoot at Northern Dance Newcastle. This image shows the colour matching between the lights and the videos very clearly. Photo by Liam Hardy.

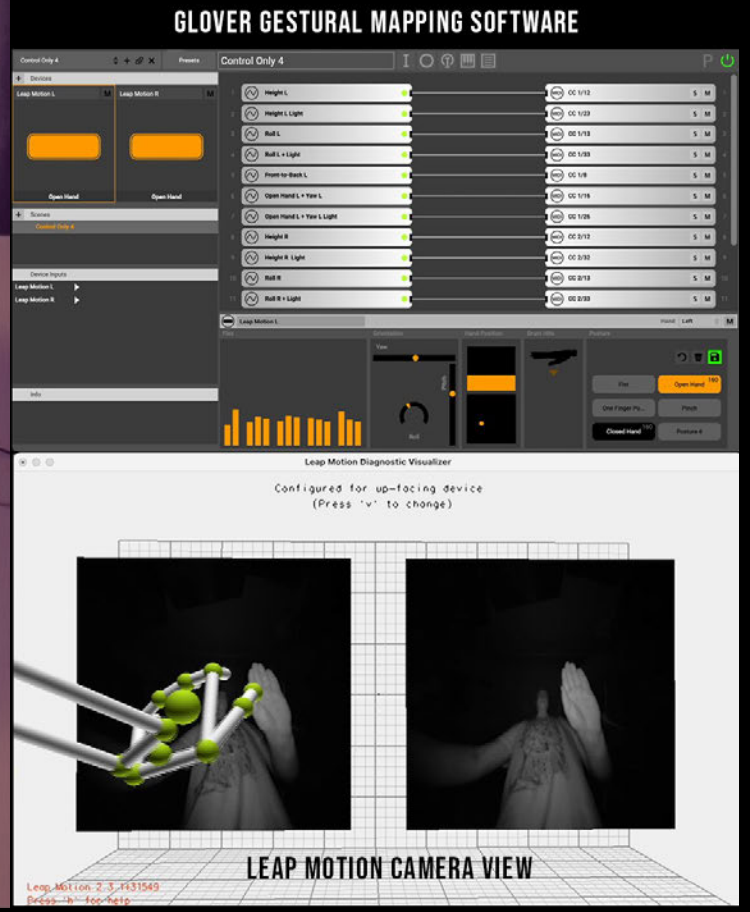
METHODS & PROCESSES

VRitual AV makes use of the Leap Motion as its primary interface.

The gestural interaction was programmed in Glover and the project also uses TouchOSC on the iPad to enable multi-touch control of audio-visuals.

The audio was created in Ableton Live , MadMapper was used for the visuals, and LightKey was used for the lights.

The three performance devices as seen through a chest-mounted GoPro camera



Left: Steve Gibson performs in his home studio with Launchpad Mini, the Leap Motion and the iPad
Right: The Glover Gestural Mapping Interface and The Leap Motion Camera View showing the position of my tracked hands

VRitual AV performance at IKLECTIK London. Photos by Jonathan Crabb.

DISSEMINATION

Project website: https://www.telebody.ws/VRitual-AV/VRitual-AV.html

A full showcase with a variety of videos using the Leap Motion and various tablet interfaces is available at https://vimeo.com/showcase/9966326

A useful starting point is this video which describes all gestural interactions on screen as they occur: https://vimeo.com/831244287

The audio for all three tracks is at https://soundcloud.com/steve-gibson-101/sets/vritual-av

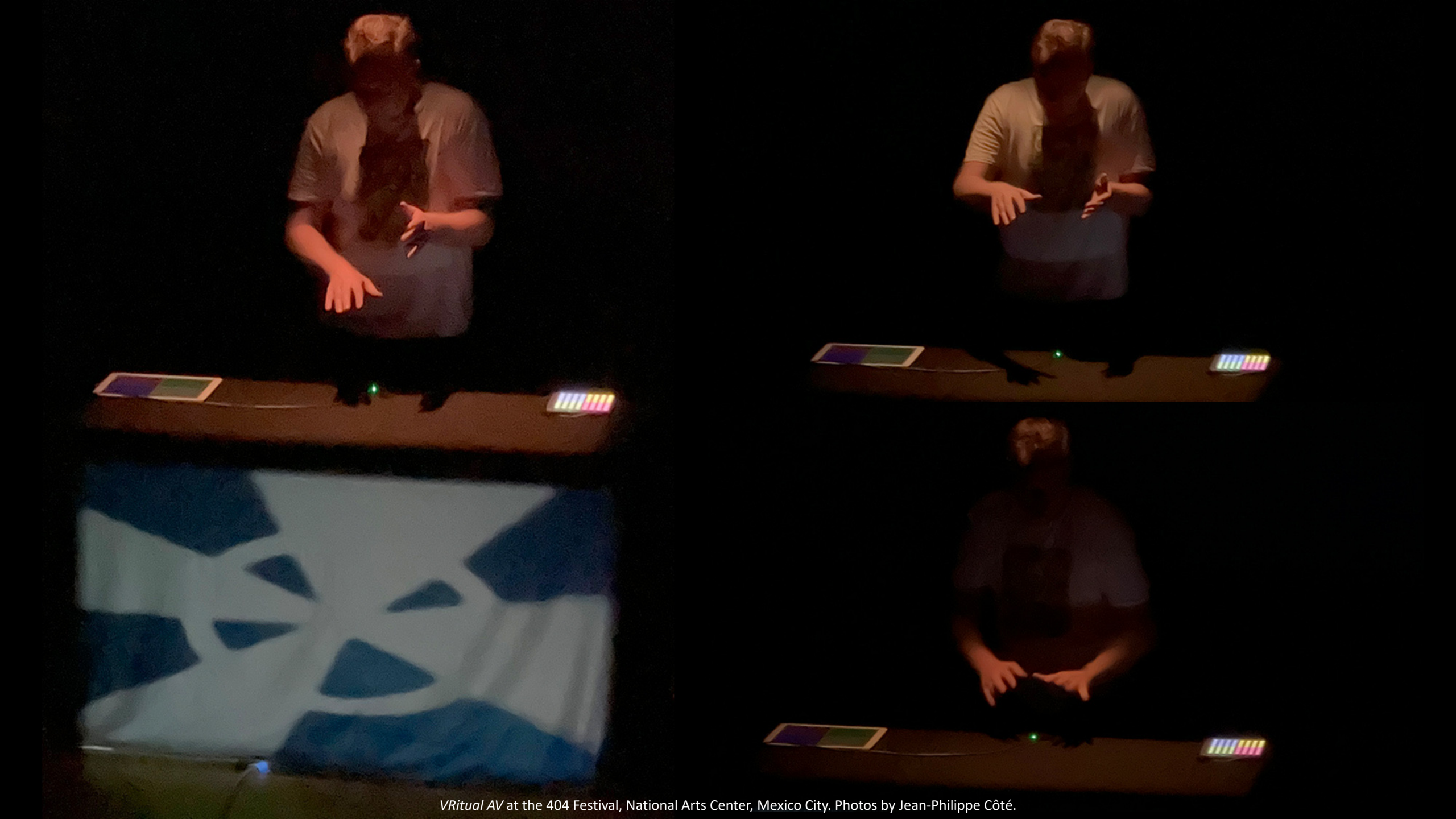
The piece was premiered at IKLECTIK in London: https://iklectikartlab.com/live-visuals-book-launch-afterparty/

The piece won Best Music Performance at AudioMostly 23 in Edinburgh: https://audiomostly.com/2023/program/awards/

A paper about *VRitual AV was* published by Virtual Creativity (in 2023) as part of the proceedings from the Extended Senses Symposium: https://intellectdiscover.com/content/journals/10.1386/vcr_00062_1

VRitual AV performance at IKLECTIK London. Photo by Jonathan Crabb.

VRitual AV performance at Audio-Mostly 23, Edinburgh. Photo by Lucy Middleton



VRitual AV at the 404 Festival, National Arts Center, Mexico City. Photos by Jean-Philippe Côté.

VRitual AV Video stills from Sender, Zurich. Video shot by Marsellus Wallace, and images edited by Steve Gibson

VRitual AV shoot at Northern Dance Newcastle. Photo by Liam Hardy.

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