

NON HUMAN DEVICE # 002

RODRIGO CARVALHO

FEUP/University of Porto/FCT, BorisChimp504
Porto, Portugal
rodrigoguedescarvalho@gmail.com

MIGUEL NETO

BorisChimp504
Porto, Portugal
miguelfaustinoneto@gmail.com

Keywords: Interactive, Gesture, Audiovisual, Installation

“Non Human Device #002” is part of series of interactive installations where experimental audiovisual devices/instruments are explored. In this installation the audience interacts with sound and vision content through a gesture based interface. By moving the hand over a device the user manipulate in real time a three dimensional virtual creature and interacts with the sound generation. It is an interactive system in the borderline between an exploratory sound and vision instrument, an art installation and gaming experience.

1. INTRODUCTION

“Non Human Device” is a spinoff from the project Boris Chimp 504, an audiovisual live performance that tells the adventures of a chimp cosmonaut in space. Every version of the “Non Human Device” installations are based on an alien object/device found by Boris Chimp 504 during his missions through the deep space. Sharing the same narrative and sci-fi aesthetics of Boris Chimp 504 the installations are used as a laboratory for possible future stage instruments for the live performance. It is also an opportunity to present audiovisual content in a different format and to get in touch with the audience on a different level.

In this version a gesture based interaction is explored. A luminous cylinder object is presented to the audience. Inside it has a “LeapMotion”¹ device, a infrared sensor that captures hand and finger gestures. When the user moves his hands over the device he will interact with the audiovisual content, manipulating a virtual creature and defining sound parameters.

INSTALLATION DESCRIPTION

A table, where the surface is placed, and a frontal projection surface compose the installation setup. In the screen we see a virtual creature built by several lines. This creature, which resembles a jellyfish, he is continuously rotating and lies on a dark background with some flickering dots connected by lines.

When the user moves the hands over the device a series of parameters are detected (rotation X/Y/Z, and height). These data is captured in Max with the “aka.leapmotion”² patch, and then sent as OSC message to Quartz Composer and used to control specific parameters in the visual interactive content. The rotating parameters control the position of the structure in space and the “height” changes the shape itself (openness of the creature’s legs, width). At the same time the same parameters are being sent as MIDI messages to Ableton live where they control audio filters. Some of the visual parameters, like specific elements on the background and parts of the creature shape, depend not on the tracked data but on the audio frequencies that are being constantly analyzed inside Quartz Composer.

FUTURE WORK

As future work our goal is to improve the interaction with the digital creature, creating more controllable parameters and mappings in a way to create a more expressive experience.

RELEVANT MEDIA ASSETS

A video from the installation can be watched here: <https://vimeo.com/81994347> . An article telling the story of the BorisChimp504 performance and the related interactive installations can be read here: <http://thecreatorsproject.vice.com/blog/boris-504s-non-human-device-challenges-viewers-to-take-a-trip-into-space-with-a-soviet-chimpanzee>

¹ <https://www.leapmotion.com/>

² <https://github.com/akamatsu/aka.leapmotion>

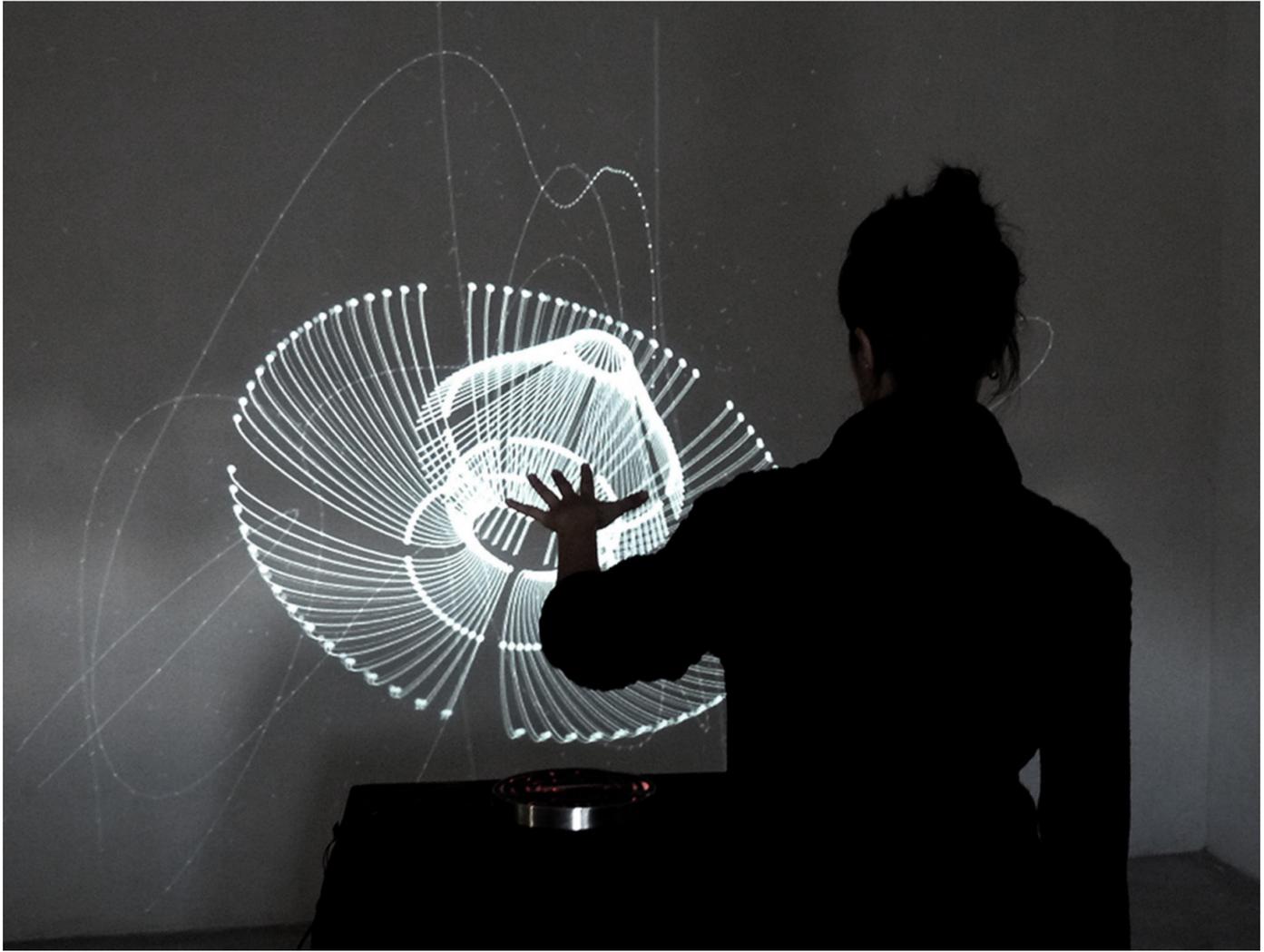


Fig.1 Pictures from “Non Human Device #002’s” demonstration

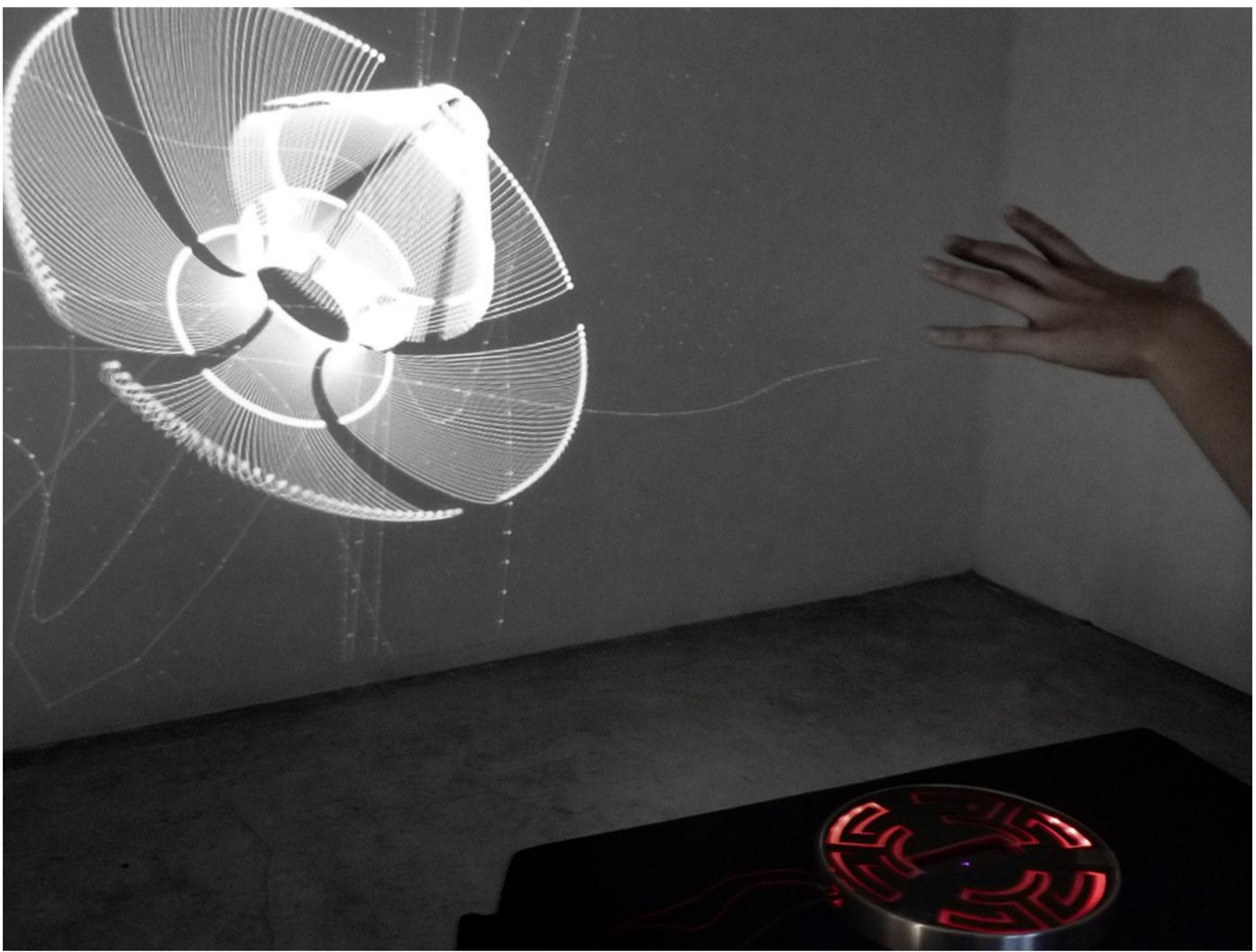


Fig.2 Pictures from “Non Human Device #002’s” demonstration

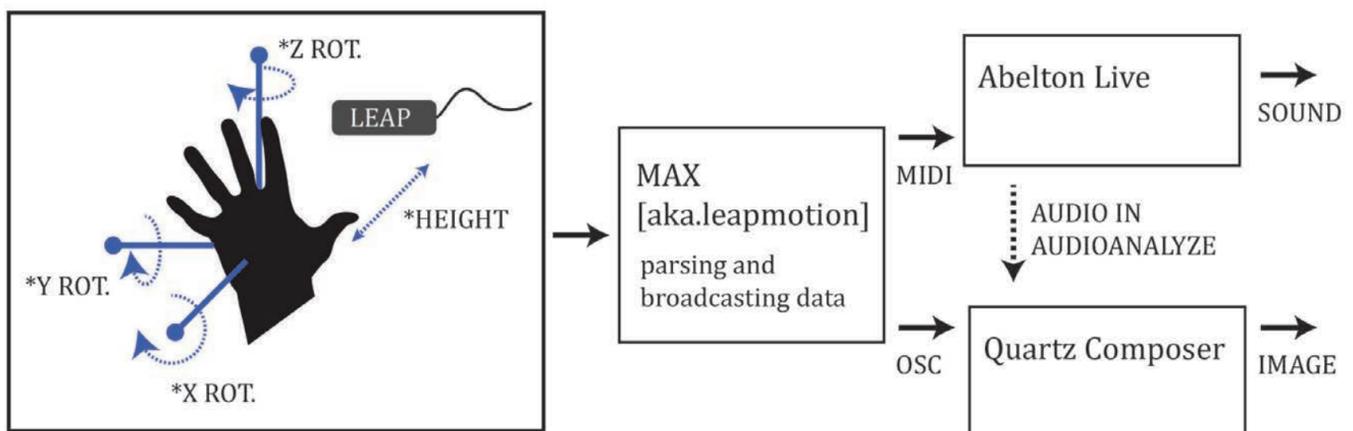


Fig.3 Scheme of the Interactive System