

LUÍS ANTUNES PENA

TRACKING REALITY #1

for three Performers with Live-Camera Tracking,
Transducers, Computer and Resonant Bodies

2019

Commissioned by:

Arte no Tempo

and

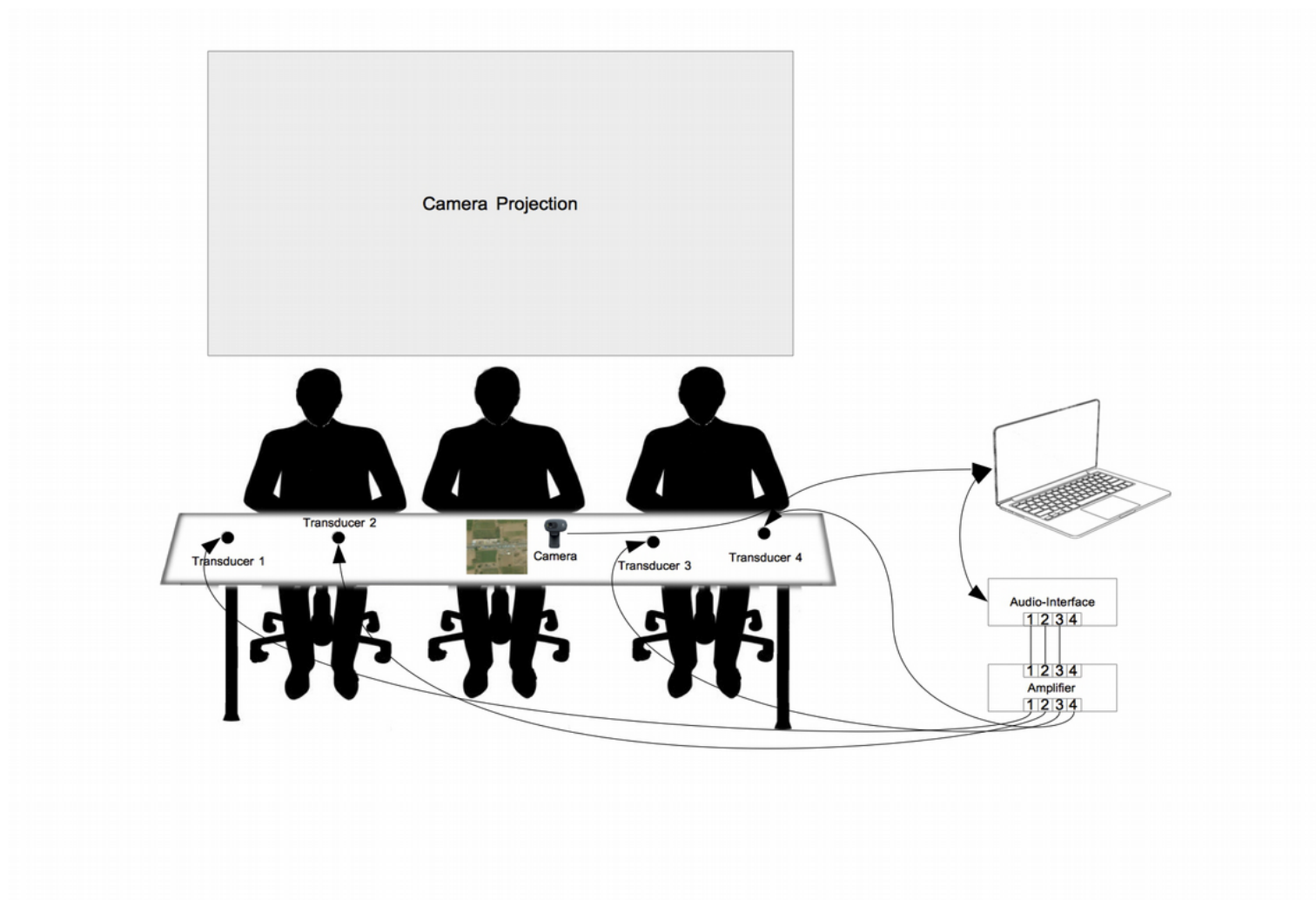
Festival DME - Dias de Música Electroacústica / AFEA - Conservatório de Música de Seia

with the friendly support of Direcção Geral das Artes, Portuguese Ministry of Culture

Thanks to:

Institute for Computer Music and Sound Technology (ICST) from the Zurich University of Arts (ZhdK) and specially to Germán Toro Pérez for supporting this project that started to be developed during a residency at ICST.

Stage Positioning / Setup



Instrumentation

Performer 1

- Woodplatte ca. 70 X 30 X 0.6 cm
- Metalplatte ca. 70 X 30 X 0.1 cm
- Plexiglassplatte ca. 50 X 25 X 0.2 cm
- 2 Plastic Boxes
- 2 Carton Boxes
- 2 Drum Fell (snare drum, or similar)
- 2 Transducers (ca. 5 W)

Performer 2

- 47 Printed images:
- Video-Camera (external camera for the computer)
- Laptop (Computer running [csound](#) and [Processing](#)
- see below the instructions for installing the software)

Performer 3

- Woodplatte ca. 70 X 30 X 0.6 cm
- Metalplatte ca. 70 X 30 X 0.1 cm
- Plexiglassplatte ca. 50 X 25 X 0.2 cm
- 2 Plastic Boxes
- 2 Carton Boxes
- 2 Drum Fell (snare drum, or similar)
- 2 Transducers (ca. 5 W)

Electronics

Installation of the software

Processing

- Download and install Processing: <https://processing.org/download/>
- Download and install the oscP5 - the OSC Library for Processing
<http://www.sojamo.de/libraries/oscP5/>
- Install the Video Library in Processing: select "Add Library..." from the "Import Library..." submenu within the Sketch menu.

csound

- Download and install csound: <https://github.com/csound/csound/releases>

Tracking Reality #1

- Download the files to run Tracking Reality:
https://icem.folkwang-uni.de/~pena/electronics/TReality1_Elec.zip
- The zip file is password protected. Send me an email to ask for the password:
antunespena@web.de
- Instructions on how to run the programm:
https://icem.folkwang-uni.de/~pena/video/TReality_SoftwareSetup.mov

Images

Images used by Performer 2 are from different sources:

- 1) <http://dronestagram.tumblr.com/> an artwork, 2012-2015, by James Bridle. All reports from The Bureau of Investigative Journalism and other confirmed sources.
- 2) <https://research.nvidia.com/> an artificial intelligence project by NVIDIA by authors Tero Karras, Timo Aila, Samuli Laine and Jaakko Lehtinen that creates images of fake celebrities.
- 3) Cut Ups from Roman Pfeifer <http://www.romanpfeifer.de/>

Download all images here: https://icem.folkwang-uni.de/~pena/electronics/TReality1_Images.zip

Tracking Reality #1

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Luís Antunes Pena

SCENE 1

to Pieter Matthynssens and the NADAR Ensemble

Preset Nr: $\text{♩} = 42$ Preset Nr:
 0 IMG: Drone 1 1

Transducer 1 z $\text{H} \frac{4}{4}$

Hold both transducers with
both hands turned to the public

wait for
camera
focous

x $\text{H} \frac{4}{4}$ left right left

Camera y $\text{H} \frac{4}{4}$ up down

z $\text{H} \frac{4}{4}$ ca. 15 cm high

black out black out black out

Transducer 2 z $\text{H} \frac{4}{4}$

Hold both transducers with
both hands turned to the public

7 IMG: Drone 2 12 IMG: Drone 3

Tracking Reality #1

14

17

22

IMG: Drone 4

IMG: Drone 5

T. 1 z

Cam. x

y

z

T. 2 z

black out

black out

black out

SCENE 2

2

Fell ♩ = 42

33

T. 1 Res. B.

Plastic

Carton

Plexi.

Metal

Wood

random movement

focus on object with color:

random movement

focus on object with color:

sim.

Cam. x/y

B

G

G

B

W

R

z

T. 2 Res. B.

Fell

Plastic

Carton

Plexi.

Metal

Wood

Vib:

Vib:

Tracking Reality #1

[40]

3

♩ = 36

35

T. 1 Res. B.

Plastic
Carton
Plexi.
Metal
Wood

Cam.

x/y

z

B

R

R

black out

Fell

T. 2 Res. B.

Plastic
Carton
Plexi.
Metal
Wood



43

T. 1 Res. B.

Plastic
Carton
Plexi.
Metal
Wood

Cam.

x/y

z

R

W

R

B

G

48

♩ = 36

Fell

T. 2 Res. B.

Plastic
Carton
Plexi.
Metal
Wood

4

Tracking Reality #1

 $\text{♩} = 60$

53

Fell

Plasic

Carton

Plexi.

Metal

Wood

T. 1 Res. B.

x/y

Cam.

z

*focus the whole pictures
higher than previously*

T. 2 Res. B.

Fell

Plasic

Carton

Plexi.

Metal

Wood

60

T. 1 Res. B.

x/y

Cam.

z

T. 2 Res. B.

SCENE 3

♩ = 42

follow exactly the same movement
camera made on scene 1 approx.
in the same area

③

72

77

X

 y

T. 1

Res. B.

Metal
 Wood

$$\mathbf{z}$$

black out

follow exactly the same movement
camera made on scene 1 approx.
in the same area

X

 y

T. 2

Res. B.

Plexi.
Metal
Wood

81 82 87

T. 1

Res. B.

Cam.

T. 2

Res. B.

Wood

Plastic

Carton

Plexi.

Metal

Fell

z

y

x

The musical score is divided into two systems, T. 1 and T. 2. Each system contains four staves labeled x, y, z, and Res. B. The Res. B. staff is further divided into five sub-staves: Wood, Plastic, Carton, Plexi., and Metal. The score includes various musical notations such as notes, rests, and dynamic markings. The first system (T. 1) starts at measure 81 and ends at measure 87. The second system (T. 2) starts at measure 88 and ends at measure 94. The score is written in a single system with a key signature of one flat and a time signature of 4/4.

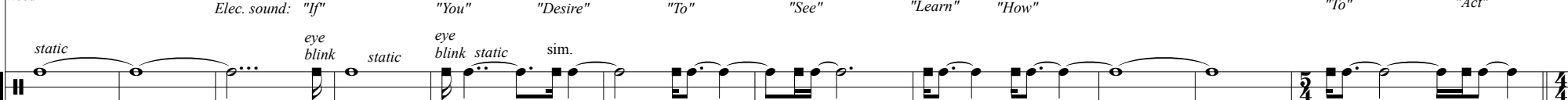
SCENE 4

4 Vib: 

T. 1 Res. B. 

Plasic
Carton
Plexi.
Metal
Wood

Elec. sound: "If" "You" "Desire" "To" "See" "Learn" "How" "To" "Act"

Cam. z 

static eye blink static eye blink static sim.
focous your eye Elec. sound: "If" "You" "Desire" "To" "See" "Learn" "How" "To" "Act"

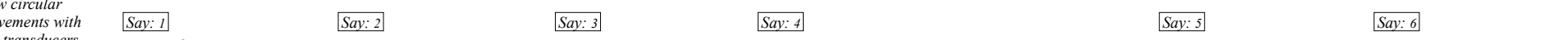
T. 2 Res. B. 

Plasic
Carton
Plexi.
Metal
Wood

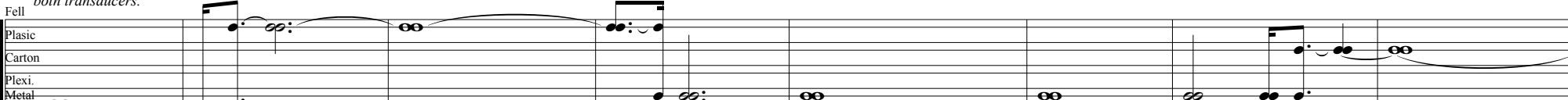
Elec. sound: "If" "You" "Desire" "To" "See" "Learn" "How" "To" "Act"

SCENE 5

♩ = 76

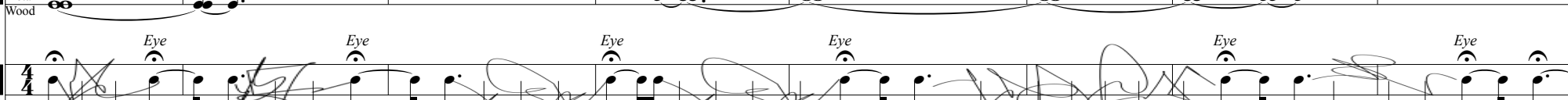
5 Draw circular movements with both transducers. 

Say: 1 Say: 2 Say: 3 Say: 4 Say: 5 Say: 6

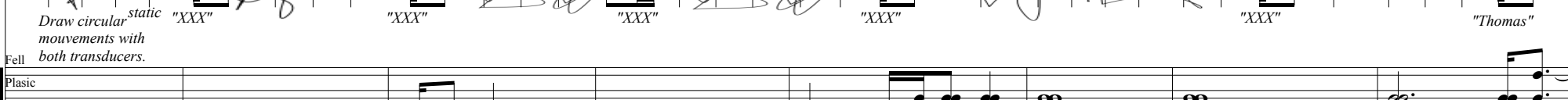
T. 1 Res. B. 

Plasic
Carton
Plexi.
Metal
Wood

Eye Eye Eye Eye Eye Eye
static "XXX" "XXX" "XXX" "XXX" "XXX" "Thomas"

Cam. x/y 

Draw circular movements with both transducers.

T. 2 Res. B. 

Plasic
Carton
Plexi.
Metal
Wood

8

Tracking Reality #1

8

Say: 7 Say: 8 Say: 9 Say: 10 Say: 11 Say: 12

T. 1 Res. B. Fell Plastic Carton Plexi. Metal Wood

Cam. x/y Eye "XXX" Eye "XXX" Eye "XXX" Eye "XXX" Eye "XXX" Eye "XXX"

T. 2 Res. B. Fell Plastic Carton Plexi. Metal Wood

13 Say: 13 Say: 14 Say: 15 Say: 16 Say: 17 Say: 18

T. 1 Res. B. Fell Plastic Carton Plexi. Metal Wood

Cam. x/y Eye "XXX" Eye "XXX" Eye "XXX" Eye "XXX" Eye "XXX"

T. 2 Res. B. Fell Plastic Carton Plexi. Metal Wood

19 Say: 19 Say: 20 Say: 21 Say: 22 Say: 23 Say: 24 Say: 25

T. 1 Res. B. Fell Plastic Carton Plexi. Metal Wood

Cam. x/y Eye "XXX" Eye "XXX" Eye "XXX" Eye "XXX" Eye "XXX" Eye "XXX"

T. 2 Res. B. Fell Plastic Carton Plexi. Metal Wood

136

Say: 26 Say: 27 Say: 28 Say: 29 Say: 30 Say: 31

T. 1 Res. B. Fell Plastic Carton Plexi. Metal Wood

Cam. x/y Eye "XXX" "XXX" "XXX" "XXX" "XXX" "Elisa" "XXX"

T. 2 Res. B. Fell Plastic Carton Plexi. Metal Wood

SCENE 6

6 ♩ = 60

IMG: Black Eyes 1 IMG: Black Eyes 2 IMG: Black Eyes 3 IMG: Black Eyes 4 IMG: Black Eyes 5 IMG: Black Eyes 6 IMG: Black Eyes 7 IMG: Black Eyes 8 IMG: Black Eyes 9 IMG: Black Eyes 10

T. 1 Res. B. Fell Vib: Plastic Carton Plexi. Metal Wood

Cam. y right left sim.

T. 2 Res. B. Fell Vib: Plastic Carton Plexi. Metal Wood

IMG: Black Eyes 19

$$\mathbf{Z}$$
$$\frac{4}{4}$$

SCENE 7

7

IMG: Double Reality: 9

$$\mathbf{Z}$$

Cam.

black out

T. 2 Res. B.

IMG: Double Reality: 10 IMG: Double Reality: 11 IMG: Double Reality: 12 IMG: Double Reality: 13 IMG: Double Reality: 14 IMG: Double Reality: 15 IMG: Double Reality: 16 IMG: Double Reality: 17

T. 1 Res. B.

Cam. z

T. 2 Res. B.

**SCENE 8**

8 Cheek
(in every side, put one transducer in a cheek)

T. 1 Res. B.

Make the mouth movement as if you would speak

If you _____ you de - si - re to see _____ learn how to a - oct.

Cam. z

black out

Cheek
(in every side, put one transducer in a cheek)

T. 2 Res. B.

Make the mouth movement as if you would speak

If you _____ you de - si - re to see _____ learn how to a - oct.