TAMBOURINE BAY

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ABSTRACT

Tambourine Bay is a multimodal work for large scale, interactive video projection and live electroacoustic performance. The work is scored for 51 percussionists and 100 tambourines and combines acoustic, electronic and handmade instruments in the performance of original music in the styles of Industrial/Upbeat/Electronica & Ambient/Soundtrack. The fifty percussionists (two tambourines per percussionist) play in unison throughout the performance accompanied by one multi instrumental percussionist.

The work is experimental and partly improvisational, combining processed samples & location sound recording with live electronica, percussion and large scale interactive video projection. (see Figures 1, 2 & 3).

1. INTRODUCTION

The video component of Tambourine Bay was first programmed for installation at the Balance-Unbalance International Conference 2013 in Noosa, Queensland, Australia. After participating in this event I started working on a large scale version of Tambourine Bay for performance and it is the development of this work that I will discuss in my artist talk.
2. CONCEPT

The performance video is in three parts and is visually represented through processed urban video footage, altered in its duration, hue and perspective and situating the viewer inside an apartment room looking out over Tambourine Bay. Parts 1 & 2 of the video/performance are visually saturated in a red and orange hue intended to illustrate and highlight the unusual weather patterns experienced in this inner city suburb, the ongoing shifts in local weather patterns and what this might indicate in terms of broader climate change (see Figures 4, 5 & 6).

Throughout the performance the audience witnesses the systematic pounding of the Tambourine Bay Reserve as it is severely struck by thunder and lightning. It then transitions from late evening into an overcast midday with a forecast of further showers, storms and bush fires. The final scene is late afternoon interspersed with sunshine and heavy cloud cover and again with further predictions of wild weather.

Spiralling text created in the application Processing and adapted from the typography sketch “kinetic_type” by Zach Lieberman (Lieberman 2014) fuels the narrative of the video and performance. Using the daily weather broadcasts transcribed from ABC news radio throughout January 2012 the narrative builds and repeats itself in an upward movement passing in front of the window frames from which the video was shot. This constantly moving cyclone of text is both readable and sometimes not, providing snippets of news, which can be distinguished at random throughout.

A second layer of text also created in Processing will be projected onto a screen placed within the audience. This secondary text will be manipulated by the performers on stage in real time using long range, infrared sensors to alter and control the flow of data, including the axis, radius, motion and direction of the data (spiralling text). The secondary text will constantly change and will be sourced from real time news feeds broadcast online as weather news in the vicinity of and at the time of the performance.

The two layers of text provide contrasting data between the shifting weather patterns over a period of time ranging anywhere from the 10th of January 2012 to the current day’s performance date and data.

The second layer of text’s Processing sketch is still in development. A prototype sketch using a simple turn switch with an Arduino to manipulate the speed and direction of the spiralling text is shown below.

2.1. Score Soundtrack timeline (@ 30 fps):

00:00:00 to 06:23:00 - scene 1 RED
06:23:00 to 09:48:00 - scene 2 ORANGE
09:48:00 to 14:50:00 - scene 3 BLUE

2.2. Prototype Processing Sketch

import processing.serial.*( );
import cc.arduino.*( );

int fps = 30;
Arduino arduino;
short portIndex = 1;
String[] theText;
it index;
it lineLength;
PFont font;
Line Ln;
Line Lns[];
PImage bg;
it potPin = 0;
it potValue = 0;
```java
int potnumber = 0;
int startTime;
int sketchDurationInMilliseconds = 1380*1000;
i = 0;
int loopFlag = 0;
float yPrint = 0.0;
float xPrint = 0.0;

void restart()
{
    //println("started up");
yPrint = 0.0;
xPrint = 0.0;
i = 0;
index = 0;
startTime = millis();
}

void setup()
{
    // screen size below
    size(1280, 720, P3D);
    arduino = new Arduino(this, Arduino.list()[portIndex], 57600);
    arduino.pinMode(potPin, Arduino.INPUT);
    frameRate(fps);
    //restart();
    theText = loadStrings("testing2b.txt");
    font = loadFont("Georgia-Italic-48.vlw");
    textFont(font,0.70);
    lns = new Line[theText.length];
    fill(255, 255, 255, 255);
    for (index = 0; index < theText.length; index++)
    {
        ln = new Line(theText[index], 0, index *70);
        lns[index] = ln;
    }
}

void draw() {
    background(00);
    pushMatrix();
    translate(0, 0, -550);
    popMatrix();
    translate(100, -50, -550);
    rotateY(0.3);
    potValue = arduino.analogRead(potPin);
    println(potValue);
    // Now animate every line object & draw it...
    for(int i = 0; i < theText.length; i++)
    {
        float f1 = sin((i + 1.0) * ((millis()-startTime) / 10000000.0) * TWO_PI);
        float f2 = sin((theText.length - i) * ((millis()-startTime) / 100000005.0) * TWO_PI);
        Line line = lns[i];
        pushMatrix();
        translate(0.0, line.yPosition, 0.0);
        rotateY(f1 * 0.007 * f2 *30);
        pushMatrix();
        scale(75.0);
        text(line.myLetters[j].myChar, xPrint, yPrint);
        popMatrix();
    }
    if(potNumber > 250) {
        yPrint-=float(potValue)/1000000;
    }
    if (( potNumber > 241) && (potNumber < 249)) {
        yPrint = yPrint;
    }
    popMatrix();
}

(Reas and Fry 2014)

3.  SOUND DESIGN

3.1. Design

The sound design is layered and includes multi tracked, processed location sound recordings, recorded oral snapshots, live percussion and electroacoustic performance. The location recording (thunder, lightning and birds) / intense bursts of synth pipes / manipulation of frequencies using EQ and sound relationships created by dynamic mixing are the main audio production components.

The performance soundtrack will include oral snapshots yet to be recorded by aboriginal clan elders, some of the oldest inhabitants of this Sydney region, from the ‘Guringai’ Aboriginal language/tribe. As discussed in the Aboriginal Language Group and Clan Names - Aboriginal Heritage Office in their publication, Filling a Void: A Review of the Historical Context for the use of the Word ‘Guringai’, they are from the ‘Guringai’ and not ‘Kuringgai’ Aboriginal connection or identity (Aboriginal Heritage Office 2015). The aboriginal elders will speak of their environment and reflect on this in the historical context of their clan.

3.2. Instrumentation

As mentioned the performance is scored for 51 percussionists and 100 tambourines. Fifty percussionists (two tambourines per percussionist) play in unison throughout the performance accompanied by one multi instrumental percussionist. Additional instrumentation includes:

- String instrument with audio sensor interface - Raspberry Pi, six fast vibration sensor switches, wire /
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aluminium frame, clear acrylic housing & miscellaneous electronic components;
• Macbook Pro w/Logic Pro / Processing;
• Electronic Roland V-Drums & stand;
• Acoustic drums, 20” calf head floor tom;
• 18” China Cymbal;
• 100 tambourines.

4. ACKNOWLEDGEMENT
As previously mentioned the original video component and soundtrack of Tambourine Bay was first programmed for exhibition at the Balance-Unbalance International Conference 2013 in Noosa, Queensland, Australia from the 31st of March to the 2nd of June 2013. The single channel video work was presented in the ‘Earth to Earth’ sound venue throughout the Conference proceedings. The artist would like to thank Dr Ricardo Dal Farra (Chair & Conference Convenor) and Dr Leah Barclay (Conference Co-Convenor).

5. CREDITS
Original concept, video production, score & soundtrack by Damian Castaldi.

Acknowledgement for the sketch “kinetic_type” by Zach Lieberman and code adaptation by Solange Kershaw.

Drum & cymbal recording engineered by Ganesh Singaram.

6. REFERENCES
