Musical Data Surrounding Two Iconic Churches

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Abstract

An artist talk about "An Enchanted Aisle" a 14 minute work combining clarinet, live interactive audio interfaces and synchronized video for live performance and a visual and audio Installation. It explores the sonic vocabularies of liturgical and social interactions due to digital mediums been transmitted in the air and the effect this change that has had on the life around and in the Cathedral. (St Patrick's Cathedral Melbourne Victoria Australia and Piazza del Duomo, Milan Italy)

The Cathedral is surrounded by people that inhabit, visit and at times formulate their own identities and communities when occupying Cathedrals. These interactions have not changed over the centuries except for the last fifty years with the introduction of digital data been transmitted everywhere in the environment. Cathedrals can talk to each other from one side of the world to the other, through digital media cameras and live air broadcasts. A comparison was made of both sites through audio means. New forms of communications have effected the forms of interaction and importance of the place of the Cathedral in society. The out come is the creation of a work that gives realism and breath to this digital world. The end result is at times abstract, random and ambiguous. I have explored these meanings by creating a work that gives moments of the past and present as equal identities in "An Enchanted Aisle"

"An Enchanted Aisle" was created in three stages with the forth stage been a Performance, presentation and installation.

Introduction

The aim in 'An Enchanted Aisle' was to make sound and image cohesive through digital means and examine the aesthetics of two iconic church's on either sides of the world. To achieve this integration the audio is analyzed and used directly to control the manipulation of specific aspects guided by the moving images. The structure and the real energy of this idea comes from combining the strength of the interaction, real-time processing, sound/image linking and mapping into the singular work that explores all forms of expression. When linking the music and visuals I question the unity and the relationship between the computer process and performance outcome.
A relevant quote from Pierre Proske's Synchronized Swamp project.:
"The emergence of identical or "same" behaviour across different fields of biological research is aptly demonstrated in the domain of coupled oscillators. The study of

coupled oscillators, a more recent sub-branch of mathematics, can be traced back to this facility is available the Dutch physicist Huygens, who noticed that two pendulum clocks when placed side by side display the uncanny tendency to synchronise their swinging. This phenomenon is one that is expressed throughout the natural world, occurring in the synchronisation of the cells of a body that generate the heart-beat, the periodic flashing of swarms of fire flies, the synchronised propagation of waves in the heart intestine and nervous system, and the synchronised chirping of certain frogs and insects."

I see the correspondence here in the two Cathedrals. How they work like a pendulum on either sides of the world. Communicating to each other and working apart but in synchronisation with each other. The people around them working, living in similar ways as in the natural world. In mapping audio to create this synchronisation I am using various programs which have given me endless possibilities. I am using the live interactive audio program AudioMulch developed by Ross Bercinni from Melbourne Australia that allows me to facilitate this flexibility and address mapping in a modular way that is easy to reconfigure throughout performance and in recreation of the samples.

2. Process

An Enchanted Aisle is 14 minute sound work combining clarinet, live interactive electronics, a cappella (SSA)and visual and audio Installation. The sound work was then divided into four audio-visual stand alone video works entitled.
1. As it is
2. Through the Red Glow
3. The River Never Lies
4. A Fast Interaction

As a whole the composition explores liturgical and social interactions due to digital mediums been transmitted in the air and the effect this change that has had on the life around and in the Cathedral. (St Patrick's Cathedral Melbourne Victoria Australia and Piazza del Duomo, Milan Italy)
An "An Enchanted Aisle" explores the tempo both audibly and visually while creating abstract, floating image impressions of movement. The research took place in both Melbourne Australia and Milan Italy collecting audio and visual samples and observing both Cathedrals and surrounding areas.
Both Cathedral's are surrounded by people that inhabit, visit and at times formulate their own individual identities. These interactions have not changed over the centuries except for the last fifty years with the introduction of digital data been transmitted everywhere in the environment. Cathedrals can talk to each other from one side of the world to the other, through digital media cameras and live air broadcasts.
The visual samples are of the two Cathedrals, pope's heads and figurines. Both sites are under constant restoration and I have documented them with line drawings, photos and video footage. The contrasts that float in the atmosphere surrounding the Cathedrals are of tone, pulse, melody, detail, verbal history, chants, solemn silence and wind. A series of visuals start out the raw state and then become heavily

modified with text floating combined with the drawings and pope's heads appearing throughout each of the four films. When creating An Enchanted Aisle I examine the media I am going to use in the composition/improvisational elements. Generative art is often understood exclusively as software generated abstractions. I personally understand the term as a much broader range of strategies involving both digital and non-digital systems and processes bridging specific art traditions and media. I think about basic audio elements: sonic realm,

amplitude (volume),

pitch, timbre (tone quality),

duration,

tempo,

rhythm

density.

I then take these forms and add extended Voice and woodwind techniques:

screams,

pure tones,

throat sounds/hums

tongue clicking,

kissing sounds,

micro-tonality,

key clicks,

multiphonics,

monophonics,

quarter tones,

over-blowing

interrupted tones

Electronic filters:

pitch shifters, reverbs,

flangers,

room placements,

harmonics,

sine waves,

ring modulators,

delays, phases,

granulation

EQ.

The process continues with manipulation of files into different layers and multi channels, concentrating on microtonal interaction between the samples. A similar process is applied to the visual materials including analysis of brightness, colour, contrast, duration, speed and complexity. The images have two categories: graphic based images and film/still images. The sound and image influences the shape and analysis of each of the movements. The audio in the compositions uses a real-time environment of acoustic sound and generative mapping structures. The other added facet is to combine live acoustic clarinet. Audio Mulch (live interactive Mapping Audio program) controls the modulating parameters (for example pitch shifters, granulators, phases, loops, switches) Controlling the amount of dynamics, on and off switches and loops during performance on the clarinet.

A comparison of both sites was made through audio means. New forms of communications have affected the forms of interaction and importance of the place of the Cathedral in society. The atmosphere and the breath this digital world has created are abstract, random and ambiguous messages around the cathedrals. "An Enchanted Aisle" explores these meanings by creating a work that gives moments of the past and present as equal identities. In the making of "An Enchanted Aisle" I collected 16th and 17th century liturgical excerpts by Palastrina, Bach, Viadana, Tallis and Byrd from choirs housed at St Patrick's Cathedral Melbourne and Piazza del Duomo in Milan Italy.

These composers inspired me to create "Inside an Enchanted Aisle" a three part female choir a cappella work.


I have collected audio samples of conversations, environmental city sounds, digital devices and analog sounds surrounding the two cathedrals. These audio samples were then transformed in the studio with intricate processing through Audio computer mapping soft ware packages. The sound files went through different processes such as Granulation, pulse manipulation, Sound shaper, Pitch Shifters, Reverbs, Flanger's, room placements, Phases and EQ. The process continued with manipulation of files into different layers and multi channels, concentrating on microtonal interaction between the samples.

The woodwind files were then replicated from the voice samples and in some cases the liturgical music. The files were then processed in the same manner concentrating on microtonal tonality and granulation. The short video excerpts of drawings, photographs and manipulated art work have been processed in a similar process as the audio through multi-channelling. The last stage was the combination all the processed and unprocessed audio samples for live performance in Audio Mulch (a live interactive computer music program).

Examples of patches from Audio Mulch
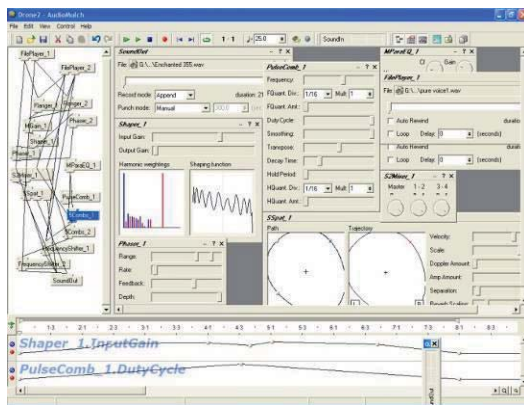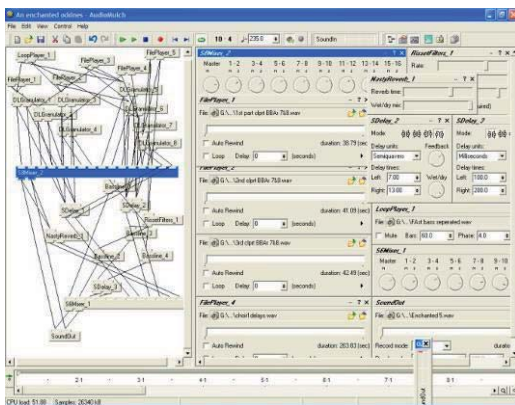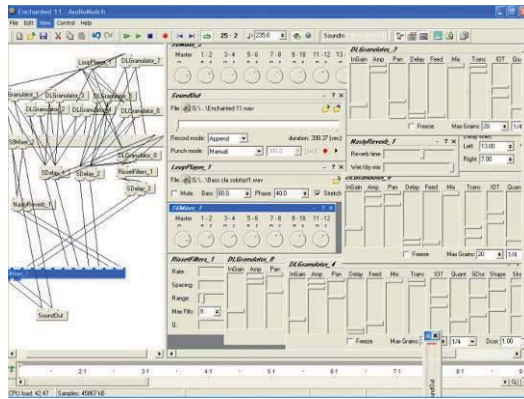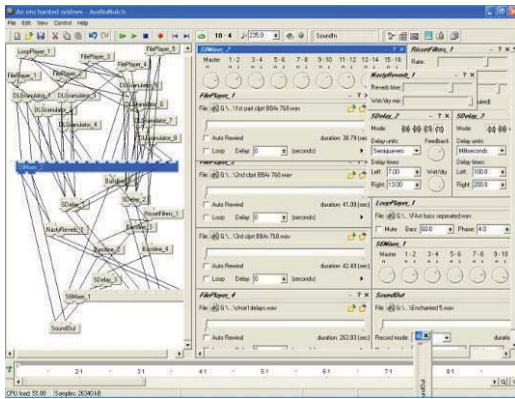
Examples of processors I have used:

S Delay - This effect is useful for filling out or widening the instruments sound
Particularly the live clarinet or looped sound the delays are between
50 - 100ms , it is also possible to create at time a doubling effect.

DL Granulator - is implementation of a delay live granulator
A delay line granulator samples small Sonic fragments from a delay
line and resembles them into a stream of enveloped grains of sound.

IOT - The Interonset time parameter determines the time between the
start of one grain and the start of the next in the output stream.

TRANS - Transposition factor- the slider has the range of 1-2 octaves.

GDur - Grain Duration from 10-500 milliseconds

Parameters - are controlled by sliders

In Grain - specifies amount of input signal

PAN - grain pans from right to left channels

DELAY - the ranges are 0-9.5 seconds

FREEZE - will freeze input to the delay line

FEED - Controls how much the granulated output is fed back into the
delayed input

Quant -Quantization is only activated when the clock is running and
allows the onset times of all grains to be quantazed.
Dcor – Decorrelation –when set too 1 it is totally uncorrelated (random)
when set to 0 pitches are correlated e.g. high pitch to the right.

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Photographs

Piazza del Duomo, Milan Italy

St Patrick's Cathedral Melbourne Victoria Australia
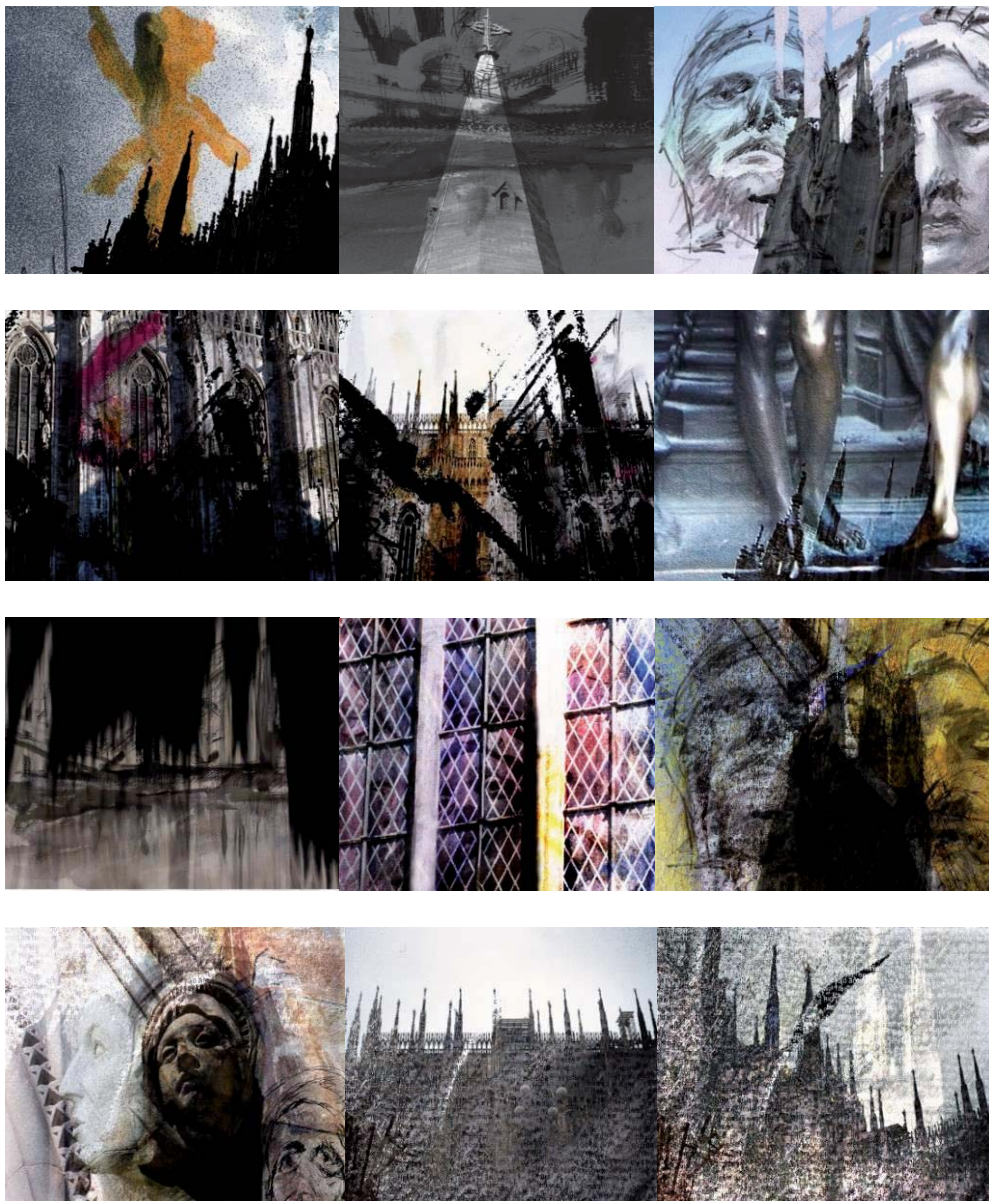
Drawings

Piazza del Duomo, Milan Italy
(mainly from a distance)

St Patrick's Cathedral Melbourne Victoria Australia
(Popes heads and figure)

Computerized photographs, drawings and text of both sites

The performance atmosphere, acoustics, audience reaction and ambience though out the theatre helps me perform and react to activate the real time audio mapping devices with my immediate reactions to the visuals and acoustics of the environment. Examples of performance
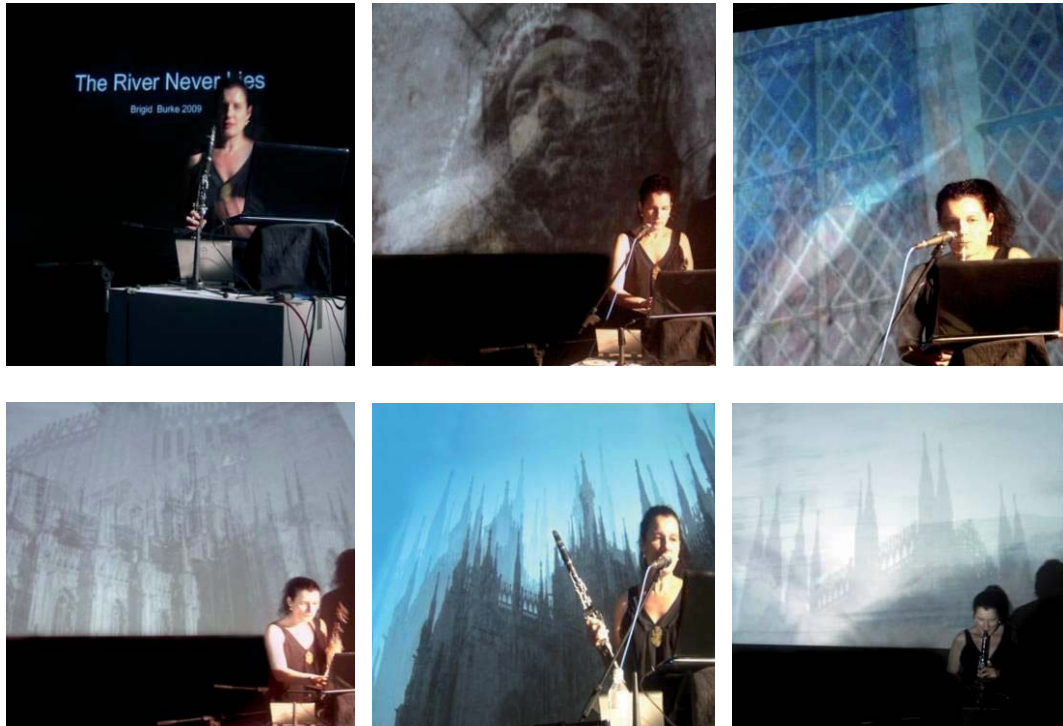
The live audio is generated through computer synthesis which is used to control the modulating parameters controlling the amount of dynamics, on and off switches and loops during performance on the clarinet/voice. The end result was a performance of clarinet, voice, live electronics, synchronized video and A Cappella Choir. In conjunction an installation that includes an exhibition of photographs and finished art works printed on silk, limited edition silk-screens , 5.1audio surround sound and video projection. The aim was to use both old and new of technologies for the outcome, to recreate an environmental situation as presented today so they are remixed and realized in an interactive multi agent performance platform

4. Conclusion

Interaction with the visuals and sound through analysis and mapping offers new opportunities and challenges that deserve original and creative application. Through the use of the uncanny, the video aims to blur boundaries between fact and fiction, data and realism, myth and reality, investigating ideas around superstition, rituals and histories. Through the juxtaposition and comparisons between the two cathedrals one can only be drawn out of the apparent unspoken and the redefining of social, political, historic spatial narratives.

5. Biography

Brigid is an Australian composer, performance artist, clarinet soloist, visual artist, film maker and educator. She has performed and toured extensively internationally. Highlights have been The International Video Dance Festival of Le Breuil France,

2008 21th Instants Video Festival in France, Music Marathon Boston USA, Futura Festival Paris, ABC Saturday Afternoon Sessions Australia, The International Clarinet Festival in Vancouver Canada and Tokyo Japan, 2007 Melbourne International Arts Festival and performances in and ICA London. Other ensembles who Brigid performs with are Tri Duo, Carte Blanche, Australian Chamber Enssemble, David McNicol and Ollie Bown

Her main focus is integrating musical ideas with a combination of different media. Each component of media is a tool in the exploration of her artistic process: sound (acoustic, laptop, clarinets and electronics), composition, improvisation, installation, video, collaboration (with dancers, acoustic performers and new media performers), print making, pen and ink drawings, painting and animation (digital).

In 2008 she was a recipient of an Australia Council Project Fellowship. She has a Master of Music in Composition from Melbourne University Australia.

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