

## **An Enchanted Aisle Integrating Sound and Visuals in Performance**

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### **Abstract**

A series of performance works will be presented that explore the processes of integrating sound and visual counterparts. 'Frenetic Illusion', 'Strings' and 'Memories of a Shadow' for clarinet, live interactive audio and visuals (DVD).

The works explore the sonic vocabularies of extended clarinet acoustic micro-tonality techniques, interactive mapping audio devices and visual components. The performance works are an interaction between the performer, computer and real-time digital audio and visual devices. The interactive audio techniques used are pitch-shifters, frequency changes, room placements and granulation. All these filters and parameter modulations can be controlled in live performance using a mapping software device. The visuals go through similar processes as the audio samples but are pre recorded and include video footage of dancers, photos and drawings.

### **1. Introduction**

The aim in 'Frenetic Illusion', 'Strings' and 'Memories of a Shadow' is to make sound and image structurally integrated. To achieve this integration in performance of these works, the audio is analyzed and used directly to control the manipulation of specific aspects of the audio guided by the fixed visuals. The real energy of this idea comes from combining the strength of the interaction, real-time processing and sound/image linking and mapping into the singular work that explores all forms of expression. When linking the music and visuals I question whether there are any real correspondences between sound and vision. The computer has helped this interaction especially in my recent works. A relevant quote from Kapuscinski is "Even an unlikely collision of sound and image can cause both of them to be evaluated with equal attention. It may even combat the usual dominance of sight and hearing". He also notes that it is not the equity between the media forms but how different the media interacts. In mapping audio through various programs it has given me endless possibilities that I can vary from piece to piece. I am using the live interactive audio program AudioMulch and software developer that allows me to facilitate this flexibility and allows me to address mapping in a modular way that is easy to reconfigure throughout performance.

### **2. Process**

When creating these compositions I examine the media elements I am going to use in the composition/improvisational elements. I think about basic audio elements:

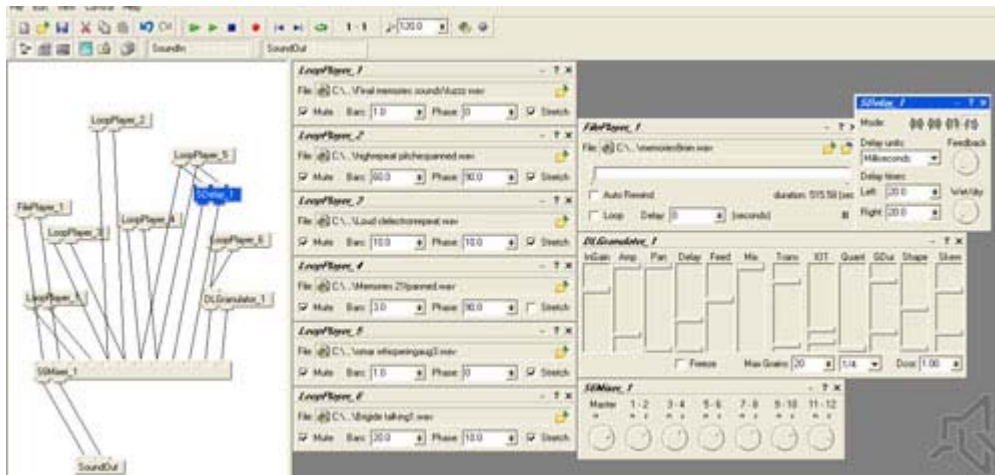
sonic realm, amplitude (volume), pitch, timbre (tone quality), duration, tempo, rhythm and density. I then take these forms and add extended clarinet techniques (micro-tonality, voice, key clicks, multiphonics, monophonics, quarter tones, over-blowing and interrupted tones) and filters (pitch shifters, reverbs, flangers, room placements, harmonics, sine waves, ring modulators, delays, phases, granulation and 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 works. The audio in the compositions uses a real-time environment of acoustic sound and generative structures.

The other added facet is to combine live acoustic clarinet. Audio Mulch 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 pressure pad controls the computer, which is situated under the thumb set of the clarinet, which is attached to a Pedal Midi Controller Box. The Pedal Midi Controller Box is a device that controls the selected Midi parameters in the computer in real time. At the moment I am controlling each sample manually reacting off the visuals.

### **3. Compositions**

#### **3a Memories of a Shadow**

A visual and sound composition, using shadows of a figure (Omar Rigo) moving through confined spaces and language that will depict memories and snap shots of individual's dreams. Sigmund Freud's, book of 'Interpretation of Dreams', inspires the text quoted throughout with the famous dream of the Guillotine by Maury. It explores inner thoughts of identity, acoustic and manipulated language to create sound, movement, performance, line and colour. These ghost like shadows appear and recede in a dark space depicting the wanderings and shapes of figures. The outcome is an entwining of audio murmurings, drawn shadows, limited edition prints (silk screened), and mixed-media art works on canvas and video footage. The audio uses much spacialization and morphing of Maury Freud's Dream as it comes to life using acoustic and modern filter techniques including ring-modulation, vocoding, flanging, multi-channelling, granulation and equalization. The opening is a mixture of female and male voices telling us of the dream. The speech is interspersed with speech rhythms and ring modulators that create hollow and bell like sounds with slight reverbs and a small delay added to make the whispers inaudible. One hears the air sounds at ends of phrases that are granulated. Single words in the middle section are fragmented – slight delays are added and microtones and multiphonics are played on the clarinet. These clarinet sounds are treated with pitch shifters, spacialization and reverberant harmonics. Throughout the work the granulation of the text occurs and as a whole is stretched, compressed and multi-channelled. The textual fragments are reshaped, spiralling in and out of understanding and audibility. This fragment of text can never be viewed as a fixed object as the content is hundreds of years old and has been handed down through generations by oral poets.



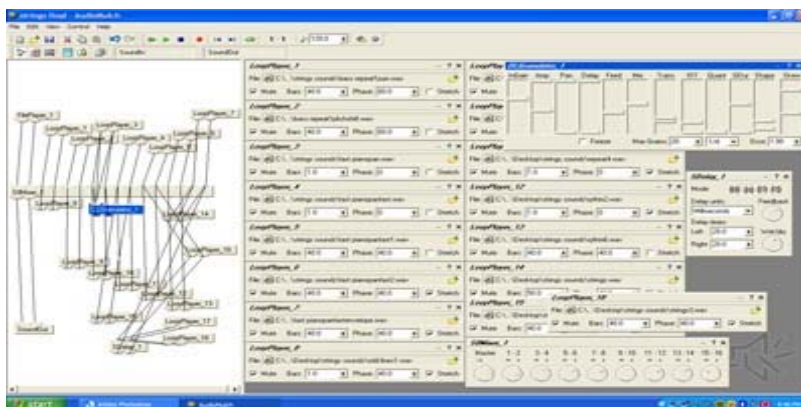
Example of AudioMulch Patch for 'Memories of a Shadow'



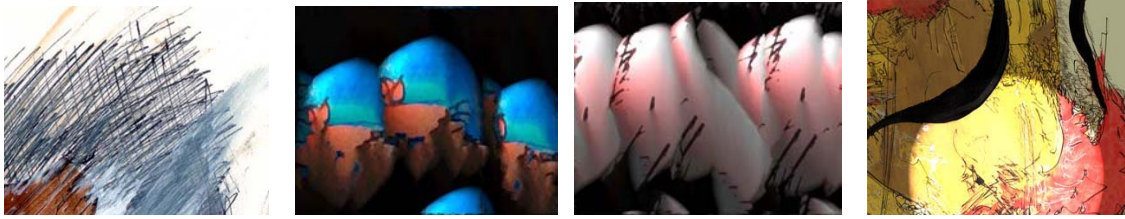
Memories of a Shadow stills from DVD

### 3b Strings

The concept of the composition is to transform the acoustic prepared piano to another timbral plane of textural colors. The sounds and transformations came from images of strings, wiring systems that connect urban cities and how strings and manifestations of these communication systems connect our lives. The visuals are heavily manipulated in various ways to create surreal imagery creating density of the wiring systems. The source of these images is from a series of silkscreen prints I created in 2006 based on the wiring systems of Inchiyaya in Tokyo Japan. The video footage is boiling pots of string, spaghetti and food colouring. The aim of the transformation of the sounds is to match timbres to give off a rich canvas of sonorities around similar pitches and rhythms. These are all interwoven with live electronic and effected clarinet textures.



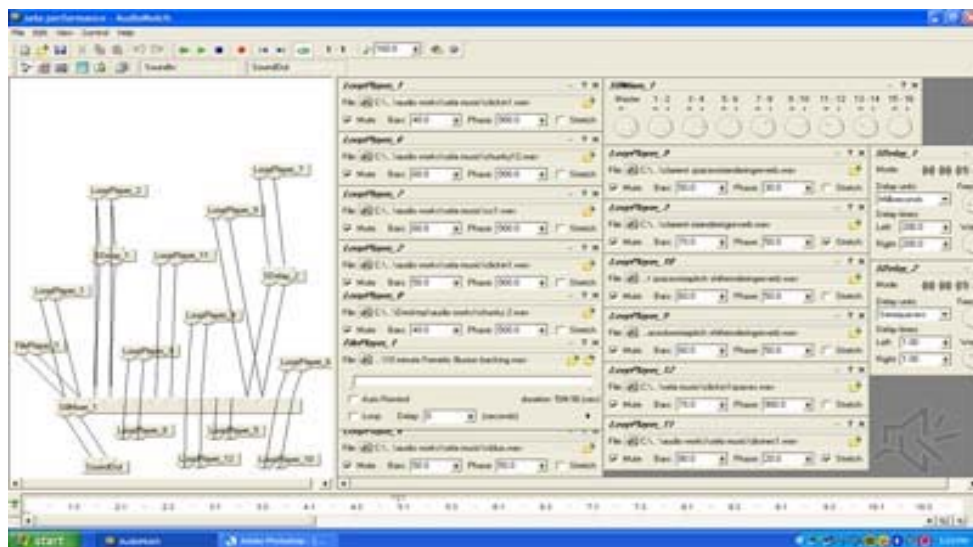
Example of AudioMulch Patch for Strings



Strings stills from DVD

### 3c Frenetic Illusion

This work is a collaboration resulting in an integrated sound and video work, which fuses dance, layered digital images, film footage and live acoustic and digital sound. The dancer (Sela Kiek) merges with my line and ink drawings and paintings. These multi-layered projections ripple and distort as the dancer moves in and through hanging cloth, reflecting the activities of insects or animals, constructing, burying, fixing and struggling to control its fragile environment. Frenetic Illusion explores the ephemeral, fragile, natural world and its ability to create complex structures that both sustain and ensnare its inhabitants. The piece echoes the natural cycles of growth and decay as the music, dancer and layers build and pulls apart sculptural forms with the cloth. The sound-scape, echoes the often-frenetic activities of construction and degeneration found in nature at the microscopic level. Frenetic Illusion was developed into a live dance, sound and video work to be performed in July 2007. The visuals were projected on a huge web-like cloth structure suspended by ropes, as though emerging organically from one corner of the space itself with images of the projected dancer. Working with the visual imagery and with the fabric used for projection, Sela created a series of phrases and structured tasks to produce movement, and the character of the duet began to emerge. The digitally manipulated sound created in rehearsal also influenced the development of movement vocabulary. This project has provoked both of our interests in the connection between music and dance in live situations and experimentation of both artists moving together, sharing the same space.



Example of AudioMulch Patch for Frenetic Illusion



Frenetic Illusion stills from DVD

## 4. Conclusion

Interaction with the visuals and sound through analysis and mapping offers new opportunities and challenges that deserve original and creative application. The conclusion I can only draw from the performance works I will present, is currently the interactive performance applications available cannot compare with the practice of years of training. Immediate reactions and vocabularies are hard for the computer artist to compete with as technology is forever changing giving more scope for artists to work with, but also creating more problematic situations to cope with in performance.

## 5. Acknowledgment

“This project has been assisted by the Australian Government through the Australia Council for the Arts, its funding and advisory body.”



## 6. References

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