Blue Dragon, White Tiger: The Paradox of Flux and Flow in Sound Art and Martial Arts

Portfolio of Compositions

Caterina McEvoy

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The University of Sheffield
Faculty of Arts and Humanities
Department of Music

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Abstract

This portfolio consists of seven works: five electroacoustic compositions and two longer durational sound art installation works, which are products of practice-based research. The written commentary explores concepts and ideas found in Chinese aesthetics and Eastern philosophy and links to a discussion of the creative process behind the pieces. As a seasoned martial artist, I find I connect my own practice and experience to my compositional processes. The malleability of movement and change is a key aspect of my earlier works, and transformation becomes key in the later sound art installation pieces in this portfolio. The titles of some of the works are influenced by chapters in the *Dao de jing* (168 BC) or *Book of Changes*, which created a context for exploration of Daoist principles as part of my creative process.

The principles of transition and flux are of interest to me both as a sound artist and martial artist. The interaction between energy and oscillatory phenomena are prevalent to both martial arts (Yin and Yang) and electroacoustic music (where one might situate and navigate sound through a series of polar opposites). As an artist, I often question how we come to grips with something that is in a state of constant flux. Flux is a maelstrom of material; its counterpart, flow is the state where comprehension of flux is manageable. Sound art can be considered as being in a state of constant sonic flux, as a force, an energy, which through apprehension and understanding leads to flow. Hence the compositional approach has been one which involves indeterminate procedures, ‘free improvisation’ and spontaneous expression as reflected in Daoist philosophy. This workflow is rooted in similar practice to martial arts, intuitive aesthetic practices that move between states of flux and flow and which embody Dao.
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Chapter 1 - Introduction

This thesis consists of five electroacoustic compositions and two sound art installation works. The commentary outlines my compositional approach as related to an understanding of varying styles of martial arts, bridging the conceptual gap between philosophy and the communication of embodied knowledge in martial arts.

My practice-based research over eight years has key themes that permeate all works: that of yin-yang, flux and flow and Dao, bringing together martial arts and sound art text/theory. I started thinking about how I could initially relate the yin-yang concept to my own creative process. Light and dark in terms of music can be found in early Italian Chiaroscuro (light-dark); bel canto singing style using appoggio breathing techniques can be similarly found in the emotive expression of colour in 15th and 16th Century Renaissance paintings – often expressed through inner dynamic and the rhythmic movement of brush strokes. These concepts resonated with my own martial arts practice and gradually influenced my compositional processes.

Yin-Yang appoggio breathing techniques have similar rooted connections to that of the breathing exercises in martial arts practice related to the Tan T'ien. The Tan T'ien focuses on breathing when practising various martial arts forms and is important to Daoism as it focuses on three energy centres. The upper relates to the forehead between the eyebrows or third eye, the middle is connected to the heart, and the lower Tan T'ien is located below the navel. In martial arts philosophy it integrates the mind-body continuum through embodied practice. The first work in the portfolio, Wu Wei explores this Yin-Yang breathing technique with a vocal recording of my own voice.

In describing my creative practice I have always maintained an intuitive approach to the creative process. It is through phenomenological methods in practice that I have approached reflective writing in this document - embodied through a combination of martial arts and sound art.
As I found the phenomenological experience of martial arts useful to my own creative practice, my mind-body relationship led me further to connect martial arts and music practice with the idea of *mimesis*. Common to all these principles are embodied skills and techniques, developed over years of practice.

Basic mimesis is a beneficial way of learning the techniques of any given situation, whether it is martial arts or music. We understand the word mimesis to mean imitation. Beyond this imitation we then have to consider adaptation: the point where mimetic transformation is understood as ‘sensation, intuition and imagination’ (Lyons, 1998, p. 41). This is essentially our subconscious reaction, and in martial arts it becomes our muscle memory, where the slower imitation techniques of the novice have developed into faster instinctive reactions in the subconscious mind as we develop our skills. Making a comparison with electroacoustic music we see composers using,

The process of ‘capturing’ events from the real world and us[ing] them, with various strategies, as building blocks for their work. Therefore, before making their way into the darkness of their computer-based audio and video editing laboratory, they still use microphones and video-cameras to harvest sounds, images, ideas, fragments, anecdotes which will then be thrown into the prolific cauldron of a compositional ‘kitchen-studio’. (Garro, 2014, p. 1)

Mimesis as an electroacoustic composer gave me the freedom to explore capturing field recordings and blending instrumental sounds with real world sounds. This overlapping of sonic materials gave premise for a hybrid compositional process to take shape within my work. Embodiment of ritual in martial arts is acquired through training of postures, stances and forms over a number of years. This training allows for the mind-body connection and reflexive action, or *knowing knowledge*. Similarly this reflexive approach as a composer working with sound is an important aspect of my creative development. This reflexive process is circular and has a cause and effect parameter, much attuned to yin and yang symbolism, it reveals in its process self-awareness. ‘Reflection-in-action is the essence of praxis’. (Schön, 1983)
Spatial dynamics are discussed throughout the works both from a point of view of compositional techniques used and sound diffusion in performance. As noted by Johnson (2007) this is not simply about sound in space, but ‘music as moving force metaphor’. Metaphoric concepts also traverse martial arts and my electroacoustic music.

I was also interested in how I could relate technology creatively with the principle of Yin-Yang. The existence of technology, (from bits and bytes to zeros and ones) especially binary code confirmed these core opposing forces. At a much higher level, I started to explore this through creative processing techniques using both digital and analog environments, interconnecting field recordings of natural and urban landscapes with sampled sounds both acoustic and electronic. This duality present in the sound sources I was using drove my electroacoustic composition process and gave my works a sense of narrative. As James Andean mentions:

Any and all sound material used will tend to contribute to both of these two streams: a sound will always have musical properties and will also always have the capacity to evoke some kind of real-world imagery. Acousmatic culture shifted rapidly, from the almost unwilling admission of this duality in the early 1970s, to a whole-hearted acceptance and, in actuality, to making this musical-narrative duality to a significant extent the heart and soul of much acousmatic work. (Andean, 2014)

I also focused my attention to the creative boundaries of zero and ones as a compositional device. Could creative coding offer this human / machine embodiment I was seeking to enable an exploration of yin-yang principles? The creative unfolding of visuals and sound is explored using the Gem graphics library in Pure Data (a computer music programming language). One area of particular interest was the use of fractal geometry / algorithmic procedures as related to nature. These considerations influence some of the works in the portfolio (discussed in Chapter 2), specifically Bui Jee, AXIOMATIC - Two States of a Kaleidoscope, and Flow.
Chapter 2 also outlines a number of key principles found in Eastern philosophy and aesthetics that motivate and resonate with my practice. All these themes appear opposite but are complementary and interconnected. The philosophical concept at the root of Daoism is yin and yang, in constant flux, in a state of continuous dynamic change. Daoism (often called Taoism), has the exact same meaning - *the Way* - but the spelling can appear differently in key texts.

The title of this thesis - *Blue Dragon, White Tiger: The Paradox of Flux and Flow in Sound Art and Martial Arts* discusses interrelated themes of paradox. Water, fluidity and flux are threaded throughout this thesis. So too are images of the dragon and the tiger encircled, which represent a perfect balance and the vitality of the yin-yang relationship, a core element of traditional Chinese philosophy. It is also emblematic of myth and ritual.

![Figure 1: The dragon and tiger yin and yang symbol](image)

Whenever two opposed forces act upon a thing (unless that thing happens to be at the place where the forces are exactly balanced), the thing will oscillate between the extremes (as does a pendulum or weight on a spring). Such cycles between opposites are everywhere in the world,
from the wheel of the year to the alchemical rotation of elements to processes of growth and decline. (Opsopaus, 1995)

The theme of water is a commonly used Daoist metaphor for one's 'path in life' and can be found in quotes of the Dao de jing by Daoist master Lao Tzu:

Water is fluid, soft, and yielding. But water will wear away rock, which is rigid and cannot yield. As a rule, whatever is fluid, soft, and yielding will overcome whatever is rigid and hard. This is another paradox: what is soft is strong. (Lao-Tzu 600BC, cited in Shah 2016)

Finally, I discuss my own creative practice in relation to a small number of prominent sound artists and figures who have inspired my work, in particular Bill Viola. His thematic works often relate to water, the sublime, and spirituality - as defined by Helminiak (1996, p.32) as a ‘concern for transcendence: the sense that something in life goes beyond the here and now and the commitment to that something.’ His work also explores themes of Daoism through connections of our inner / outer lives.

Also inspirational was the artist Éliane Radigue, who inspired some of my working processes using slowly developing drone-like materials as informed by Buddhist doctrines. Outside music and fine art, Bruce Lee - an iconic figure in martial arts history – led me to write a paper drawing upon aspects of this thesis, focusing upon his work and the principle of flux and flow. Accordingly, these practitioners are discussed in relation to some of the works presented here in the portfolio, namely Wu Wei / Bui Jee (Lee), Ma (Radigue) and AXIOMATIC – Two States of a Kaleidoscope (Viola).
Chapter 2 – Portfolio of Works

The earliest work in the portfolio is titled *Wu Wei*. This project set about to explore the meaning of *Yin-Yang* concepts and dualism in my own work. My work at this point was driven by working in a more holistic way, a desire to clear the mind of thoughts - as in martial arts practice - and allow freedom to flow, letting me experiment openly with the sound materials I was working with in the present moment. This work explores dualisms and conceptual metaphors that run throughout the body of text of the classic Chinese text *Dao de jing* (168 BC). Through reflexive action, I began to explore the space-body concepts of Daoism. Mirroring this, my experimentation with granulation techniques let the sound continuum open up and enabled me to explore a temporal flux.

_Incognito_ explores the concept of perceptual automatism and Daoist concepts of unconscious thought and embodied intentionality. Spontaneous sonic improvisation and chance processes were used to create sonic material. My creative methodology in this work was influenced by Surrealist art and Brooks’ theory of intelligence found in ‘the interaction between perception and action’ (Brooks, 2002). Again, the use of granular synthesis techniques enabled me to experiment freely with sound movement, free-flowing rhythm and stillness in space.

_Bui Jee_ considers *energy* in both martial arts and electroacoustic music practice. As a martial artist I began to relate some of the deeper concepts of the forms of training with my own practice as a composer: that of spatial perception, a bridge between structure and form; timing, distance, and live diffusion. The live diffusion of audio
plays on spatial angles of attack and decay. Here, McGuire’s (2014) work draws on Bruce Lee’s (1975) principle of ‘broken rhythm’ in an effort to apply the musical concept of rhythm to ‘attack and defend’ in martial arts. Micro sound gestures are explored in the composition process, and live diffusion propels the energy-motion trajectory within this work allowing fluidity of movement in the space. There is also a level of metaphor playing out on the real-unreal continuum.

The work Ma continues an awareness of space-time relationships. This explores liminality or ‘in between-ness’ as a Zen spirit of living space / being-time (u-ji) and the concept of Ma. Timing between notes is important to the work as is the unity of opposites, in particular through rhythm and non-rhythm. Fluidity and impermanence is explored through the textures used.

*He is More Myself than I* explores personal identity through continual transformation. The work comprises fragmented snapshots of history and events inflected through personal response. *He is More Myself than I* presents my sonic trace of history into the present through sound. Landscape as connected to sound; a sonic wandering. The title comes from the Bronte classic *Wuthering Heights* but the main context of the work is regarding human identity.

**AXIOMATIC – Two States of a Kaleidoscope** is an audio-visual installation. This longer durational work explores the concept of the embodied sublime, which is beyond the senses through slow moving drones and visuals, and seeks to address the mind-body continuum. The work explores the paradox of opposites, presence and absence, virtual and actual.

The final audio-visual work *Flow* presented in the portfolio re-addresses themes of flux and flow, drawing upon the philosophy of Merleau-Ponty’s corporeal presence, listening, movement, technology, and virtual structures in real-time.

I aim to demonstrate through my practice how embodied ways of knowing and listening are developed through experience of both martial arts and sound art composition (with a focus on flow and flux). These disciplinary boundaries inform my work and enable me to make connections between theory and practice.
Initial research questions included the following:

- How can the phenomenological experience of martial arts be useful to creative practice and composition?
- How does martial arts philosophy function as a means to consider compositional practice (in relation to time, space, materials of creative process / work)?
- In what ways do natural environments inspire compositional strategies?

**Wu Wei 8’15 (2010)**

*Format: stereo, acousmatic*

*Wu Wei* is an electroacoustic stereo work that was one of my earliest works first performed at Sheffield University Drama Studios as part of Sound Junction in the summer of 2010. I started to explore an intuitive connection between martial arts and my composition process and this is reflected in the title of the work. The composition process of ‘non action’, guided by an intuitive approach, allowed the spontaneous experience to unfold. At this early point in my creative practice research, the philosophy of martial artist Bruce Lee was important to me.

**Martial Arts Philosophy**

Bruce Lee’s approach to his philosophy is close to Zhuangzi’s (Chinese philosopher 4th century BC) writings, and the relationship with infinity of nature. Zhuangzi was a pivotal figure in Daoism.

Dao is the primordial root of all beings and creatures; all beings and creatures in turn depend on it, and it never turns away from them. As the ultimate source and ground of the universe, Dao seems equivalent to a metaphysical concept in Western philosophy. For Zhuangzi, right and wrong, good and bad hold the
same values, while life and death, fortune and adversity are equally as acceptable as the alternating day and night. Thus, Zhuangzi’s thought involves an ideal notion of human existence (Edelglass, Garfield, & Xiaogan, 2011).

Bruce Lee defined the notion of Wu Wei as ‘a spontaneous or spirit action,’ which is ‘according to the circumstances without pre-arrangement’ (Lee cited in Little, 2000, p.35).

In the work Wu Wei, I again look at embodiment as related to conceptual elements of ‘chaos’ and ‘spontaneity’. Like Zhuangzi, who sought liberation from the conventional system of values, standards, and signification (Watson, 2013), Lee questioned the systemization and formalisation of the world of martial arts. Wu Wei also shares this sentiment in that it doesn't follow traditional rules of electroacoustic composition and performance.

**Sound Materials**

*Wu Wei* contains highly contrasting materials: hydrophone recordings, city ambiences, radio static and a vocal recording of my own voice. The combinations of longer vocal sounds and shorter audio samples were the basis of the sound materials used in this work. This was one of my first attempts to create some sort of Yin/Yang connection. The longer vocal sounds have a relaxed effect (Yin) such as the opening (0:03 – 2:10). The audio is comprised of chaotic fragments (Yang) that pulse and bubble under the surface with an audio recording of my voice. Within the composition structure, this duality exists, splicing fluid sound forms with sounds of temporal regularity. There is a tradeoff between temporal and spectral resolution as identified through Gabor’s (1946) indeterminacy principle in his work *Theory of communication*. He discovered that, ‘Transient sounds such as clicks have broad bandwidths. Pure tones of long durations have narrow bandwidths.’ (Hsieh & Saberi, 2015)

The sounds pulse and coalesce; repetition and suggestive metrical relationships appear and disappear, along with cyclic textures:

The (electronic) sound form is the internal turned to the outside, an object, a variable acoustical element. This electronic sound embodies something
fluid, streaming, similar to a river, which constantly produces an eddy. Its development is stopped by invisible resistance, and accelerated by the constant gravitational force. In the same way the acoustical shape of a variable electronic sound is the perceptible result of unrecognizable causes (Koenig cited in Young, 2007).

**Conceptual Blending**

The duality of irregularity and cyclic motion in *Wu Wei* is explored through an undercurrent of rhythmic pulse and longer vocal reverberation sounds. Through audio processing I aimed for this transition of sound as 'similar to a river, which constantly produces an eddy' like a repeating pattern of swirling vortices (1:48-6:30), a bubbling undercurrent of audio flowing between calmness and chaos with the other sound material in an indeterminate spontaneous process. Two temporalities coexist: pulsed and oriented time with smooth and static time.

Wu-wei requires ethical judgment and cultivates energies that allow unforced wisdom to govern the movements and non-movements of life artists in order to unleash the unifying energies of compassion (pathos) and mutual respect (Oliver, 1961; Shanahan & Wang, 1996).

One of the key references to the bubbling undercurrent of audio existing in this work is the connection with *shui* ‘water’, which is the epitome of philosophy of Wu Wei and Daoism. (*Dao de jing* is a key text of influence in this work.) This classic text references water throughout and is used as a metaphor for *flow*. Using field recordings of city environments an underlying unity of elemental forces (that of water) was created using granulation techniques and mimetic mutation. Canadian composer Barry Truax’s work *Riverrun* also uses conceptual blending of electroacoustic sound materials through granular synthesis to create the sound of a river in its natural state.

This combination of materials in *Wu Wei* explores dual aspects of nature and urban landscape. As the text has dualist themes for the reader, my compositional process dealt with themes of tension and resolution in a variety of ways using abstract and mimetic structures, varying dynamics, timbre, rhythm and texture.
For the composer of electroacoustic music this duality in content may be used to advantage. Even for those not interested in manipulating these associated images in composition, it must at least be taken into account (Emmerson, 1986, p. 19).

![Chinese Yin-Yang Symbol](Source: Lee and Hu, 1993)

**Metaphor**

The use of my own voice is specific to the space-body concepts I was working with in this electroacoustic composition. Reflecting on concepts of macrocosm (the outside world) and microcosm (interior to the practitioner’s body and spirit) this play of dualism permeates the whole work. This paradoxical blend (a bubbling undercurrent of shorter audio and longer vocal reverberation sounds) is explored in the metaphysical and spiritual sense as this water metaphor runs throughout.

**Sounding schemas**

The vocal sounds used in this work approach sound schemas more related to common practice in electroacoustic music. The vocal sample used explores 'slow oscillation / breathing (cycle, balance; pace, tension / relaxation). The starting pitch B
is related to the Crown chakra (Sahasrara). Towards the end the vocal moves to A which relates to the Third Eye chakra (Ajna). Paramahansa Yogananda (1893–1952), the founder of yoga in Buddhist and Hindu traditions, considered the primordial tone of the universe OM as a vibration, which forms the basis of all things. He has described this sound as one that corresponds in pitch to the note of B below middle C on the piano. In this work, the vocal is sung an octave higher.

![Figure 3: Seven Major Chakras](image)

Although it is regarded as a Buddhist mantra, it has likewise been a Daoist practice:

Though mantras are usually associated with Hindu and Tibetan Buddhist practices, Taoists have also employed them for many millennia. The three most effective syllables are 'om,' which stabilized the body, 'ah,' which harmonizes energy, and 'hum,' which concentrates the spirit. 'Om' vibrates between the brows, 'ah' in the throat, and 'hum' in the heart, and their associated colors are white, red, and blue respectively. Chant the
syllables in a deep, low-pitched tone and use long, complete exhalations for each one. (Upadhyaya and Sharma, 2006)

The Daoist concept of Tan Tien as an energy centre is similar to the Indian yoga concept of chakras. This is where Shen (spirit) is refined into Wu-Wei.

Zhuangzi, a Chinese philosopher who lived around the 4th century BC refers to a type of being as flowing, or, more poetically, purposeless wandering (as cited in Watson 2013, p. 7). In considering the workflow of Wu Wei, the sonic layering lends itself well to this type of flow.

Shen is associated with the upper Tan Tien between the eyebrows, often called the Third Eye in yoga. The three levels are also referred to as body, mind, and spirit. Much of Daoist inner alchemy is devoted to causing energy to ascend from the lower Tan Tien to the higher ones.

Within my own Wing Chun and Xing Yi practice, the focus of breathing from the Tan Tien is important to channel qi energy and to flow. One’s body starts to open as one allows one’s qi to sink into the lower Tan Tien. This is reflected in the stances in both styles; the rooting connecting ground with earth. The vocal used in Wu Wei was considered as a connection with qi energy. My own moment-to-moment flow of events mirrors ‘the patterns of process and flow of our felt experience’ (Stern, 1985).

Overall, the concept of Wu-Wei as a new methodology and approach allowed me to work in an unpredictable and spontaneous new way. This process of working was experiential in connecting the body-mind continuum as explored through martial art yi (intent).

My experience is that these training principles gained through highly perceptive spatial heuristic movement based on optimal body/mind training and astute observation of natural phenomena at both micro and macro levels are tested through application (fighting/composing/life). This work then is an expression of human identity seen as states of being; identified through experience and phenomenology; reflected in my work with and through technology; demonstrating embodiment and individuality. This idea of yi (intent), is discussed through Maurice Merleau-Ponty’s notion of ‘embodied intentionality’,

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It is through our bodies as living centres of intentionality … that we choose the world and the world chooses us. (Merleau-Ponty 1986, p. 74, as cited by Baker and Sicchio, 2016, p. 21)

*Incognito* 3’49  
*Format: stereo, acousmatic*

*Incognito* was a miniature electroacoustic stereo work that was first performed at Sheffield University Drama Studios as part of Sound Junction in the Winter of 2010. It was an early work in the portfolio and was based on the concept of perceptual automatism. I focused upon ideas of stasis and beating patterns - in particular the use of a rhythmic drone that exists throughout most of the piece - guiding the entire structure. As a relatively short piece in the electroacoustic format there were limitations to development of materials. Nevertheless, I was able to explore specific techniques to develop texture and rhythm (granular synthesis), and overall temporal flow (mixing).

The presence of rhythmic regularity and harmonic metrical patterns ‘affords both the perception of motion as well as our ability to move with the music, either in our aural imagination or in fact’ (London, 2009). I explore techniques such as inflections in pitch through beating patterns, use of granular synthesis techniques to control fluctuations of smaller spectral effects such as grains of sound. As an inverse process this work was reconstructed into another alternate longer durational version for performance within a radio play in 2012.

**Sound Materials**

The sounds used were a combination of static electrical hums, and industrial sounds recorded from the city environment, further processed and developed in the construction of this work.

Descending pitch-shifted stuttered electrical sound materials are heard at the start (0:00-0:18). These temporal gestural features added depth of space created through juxtaposing metallic sounding materials with long reverberation (0:34-0:55) with fast-
moving granulated gestural material. Transforming and combining sounds play in
essence with the human/non-human duality. The time-stretched low metallic timbres
at the start of this work (0:12 – 0:48) create spectral contrast with higher shorter
granular grains of sound. There is a sense of control/chaos in the metric/non-metric
rhythm of this work as explored through these permutations.

**Aesthetic Rationale**

Perceptual automatism ‘approximates chance and nature’ (Bresson cited in Teo,
2019). It relates to Daoist thought and affords experimentation in composition and an
attempt to embrace nature through Eastern philosophy. Additional concepts of
intentionality and embodiment were present and allowed me to explore technology
as related to human/non-human duality.

The piece developed the idea of ‘unity of opposites’, shown in Daoism through binary
forms of silence/sound, space/body, incognito/cognito. This led to the title, *Incognito.*
*Incognito* was an experiment examining my engagement with the virtual dimensions
of sound, alternate modes of perception, temporality, and experience. In doing so, I
was exploring themes of paradox within my work.

The paradox is the force of the unconscious: it occurs always in the space
between (*l’entre-deux*) consciousnesses, contrary to good sense or,
behind the back of consciousness, contrary to common sense. (Deleuze
1990, pp. 75–80)

**Temporal construction**

Against the stasis of the drone is a combination of regular and irregular spaced beats
with regular and irregular pitch fluctuations throughout. The sound is likened to
travelling through an industrial underground or landscape, with an un-resolving
rhythm that dictates the duration of the work searching for gaps between strict
definitions (e.g., human/sonic/digital). This early work, even at this stage in my
creative practice led me to think about ideas of flux and flow and (from my readings
of philosophy) the dichotomy between being and becoming.

Through stasis I also tried to manipulate the sensation of time, the audience’s own
perception of sound as it unfolds over real-time in the diffusion of this work in space.
The manipulation of the drone creates an imaginary landscape for the listener, through a combination of hypnotic pulse pushing the sense of space through displacement or real-unreal sonic materials as Wishart (1996) calls ‘landscape’ and ‘virtual acoustic space’.

I was interested in the physicality of sound in Incognito as a way to consider motion and energy, displacement, change, and transition. The sound could fly Incognito within the space as a premise to explore these gaps between human, sonic and digital. Incognito connects the circuitry of the body, exploring the unconscious mind, acting in a Surrealist/dreamlike way, flowing through an imaginary landscape, relating my process to Daoist concepts of unconscious thought and embodied intentionality.

Merleau-Ponty discusses ambiguity of the body in Phenomenology of Perception as a ‘circuit of existence’ (cited in Silverman, 1987, p. 80). This ambiguity of the body is described as both visible and invisible, not as duality but as an ambiguous kinship. Within martial arts practice the metaphoric expressions implicating the embodiment of flow in contact with an opponent brings together the same flux and flow. Bruce Lee would define this as listening with the body, body feel, and the root that forms some of the core principles in martial arts, and our creative tide. This mutual subject-object polarity coexists in the sonic landscape through flux/flow, materiality/immateriality.

Verbeek (2005), ‘designates how technological artifacts influence the relation between subject and world, so that both entities emerge only in their connectedness with each other.’ A term he calls ‘mediation’, one in which the body must mediate between sound and technology. This mediation permeates the compositional process in Incognito.
'The movement of the fingers should be like striking bronze bells or sonorous stones. Slow or quick, no secondary sounds shall be produced, so that when hearing these tones one obtains an impression of purity – as of a pool in autumn; of brilliancy - as of the shining moon; of dim resonance – as of the babbling water in mountain gorges; of profundity – as of a resounding valley. These tones shall in truth freeze alike heart and bones, and it shall be as if one were going to be bodily transformed into an Immortal.' (van Gulik 1939, p. 431)

_Bui Jee_ is an electroacoustic stereo work that was first performed at Sheffield University Drama Studios as part of Sound Junction in 2011. It uses Tibetan bowls and bell sounds as source material. The text above was an influence and my goal was to create a work where this impression of purity is evident.

The sound projection of the short Tibetan bowl sounds plays an important role in making the rhythms become more vibrant in three-dimensional space through diffusion. To create textural features involved filtering, time-stretching, granular synthesis, and cyclic patterning. In diffusion the performer engages with rhythmic accents to create a ‘push and pull’ of sound in the space, emphasizing *force of motion* through flexible changes in the moment of live performance. Reiterating Johnson (2007) ‘music as moving force metaphor’, sound diffusion in this work and the placement of sounds within three-dimensional space is achieved through several parameters such as amplitude, time-gap, and timbral change.

Through the application of granular synthesis techniques the movement of variable frequencies are heard as a fluctuating continuum of sound. These fluctuations are noticeable in this work where clusters of sound expand and contract. The time-gaps between sounds have inherent irregularities, and although cyclic features of repetition can be heard, there are always shorter durational tones moving within longer receding passages of sound such as at the start of the work (0:00-0:18).
After this I start stretching out the sound through filtering and granulation techniques with moving drone passages gradually sustained in intensity and duration with changing pitch and frequency.

Between (1:11-1:31) you hear a return of the Tibetan bell motif from the start. This quite obvious repetition signifies ritual and lends a poetic meaning to the title. Moments of attack and decay can be heard such as (3:03-3:17) where in the spectrogram below you will notice this wave-like decreasing density of sound:

![Fig 4: Spectrogram Image Bui Jee (3:03-3:17)](image)

In *Bui Jee*, Wing Chun techniques are important in the performance of the work. The performer uses many of the movements of Wing Chun to diffuse the piece in space over loudspeakers. How is this possible? Real-time granulation allows for intuitive
performance of an instrument in space, I was attempting to sculpt sound using the geometric shapes associated with movement of this martial art form. Although far-fetched in practice I had the thought of ‘fighting in the space with sound’.

The diagram below shows Wing Chun techniques of timing, distance and power release. The diagram demonstrates the deconstruction of the martial art form.

![Diagram of Wing Chun Techniques]

*Figure 5: Wing Chun Techniques*

Bui Jee comes from the Cantonese ‘Biu Yuet Ji,’ meaning a ‘finger pointing to the moon.’

It is a Zen saying commonly associated with Bruce Lee, who, in *Enter the Dragon* (1973) has the famous line of dialogue: ‘It is like a finger pointing away at the moon. Don’t concentrate on the finger or you will miss all that Heavenly glory.’ (Lee cited in Little, 2000)

**Materials**
Tibetan singing bowls were struck and recorded, and through the application of reverberation these short attack sounds from the Tibetan bowls were processed and extended with longer decaying reverbs. These sounds were then diffused live in performance with some attempt to emulate or engage with the movements of Wing Chun. This can be reflected in the movement of Bui Jee, which in martial arts terms relates to extreme short-range (single sources) and extreme long-range techniques (sounds with reverberation). The notes D, G, A, E and B comprise the tonal reflections from the Tibetan bells.

Long sustained descending fragments are interspersed with shorter fragments of sound. The sounds are unresolved throughout and expansive in nature to leave a residue of sound trails within the space immersing the listener through this density of sound.

In Bui Jee, granulation techniques allow the listener to travel through layers of particle-like sonorities in constant flux. In the live diffusion of this work, I try to achieve some measure of flow. The spatial features of Bui Jee reproduced with loudspeakers include:

- Direction
- Distance
- Extent: depth, width and height

And immersive attributes:

- Presence
- Envelopment

I apply the following martial arts criteria of:

- Distance
- Timing
- Balance
- Coordination
- Release Power
- Mobility
- Centreline
Distance and direction correlates to positioning; depth, width, and height of sound in space. In diffusion I was able to ‘push and pull’ the sound. I was also able to alter presence and envelopment in an attempt to create flow.

Depth zones are used to take into account variables relating to penetration in both offensive and defensive techniques. The number of zones, the width of the zones, and the height of the zones are always changing; this too can be applied through diffusion and in the construction of the loudspeakers in the space.

Within this work, the live diffusion through loudspeaker formation ‘relies upon patterned sound or movement to orient the person within time as well as within their physical and social surrounding.’ (Sager 2012, p.32)

**Rhythm**

*Biu Jee* can be split into a number of sections that are rhythmic or non-rhythmic. In the rhythmical sections I was reminded how I use rhythm in my own martial arts practice.

Colin McGuire, an electroacoustic composer and martial artist, talks about aspects of *rhythm* that cross over to both electroacoustic music and martial arts. He presented a paper in summer 2018 at Cardiff University called ‘It’s All About That Rhythm: Timing in Bruce Lee’s Writing as Inspiration for a Musical Hearing of Hand Combat’ (McGuire 2019). As well as depth, width, and height, McGuire introduces a fourth dimension that is crucial to martial arts and electroacoustic music: *Timing*.

I propose that space-time in kung fu striking can be thought of as having an envelope like the ones used to shape amplitude or frequency during sound design. The speed and spatial position of a strike can thus be manipulated together for strategic purposes in a multidimensional way that connects the start and end of a movement. (McGuire 2014, p. 219)

In the concept of Bui Jee, it can be used as an emergency technique. McGuire’s (2014) work draws on Bruce Lee’s (1975) principle of ‘broken rhythm’ in an effort to apply the musical concept of rhythm to attack and defend in martial arts. Using a
broken rhythm means to strike outside of a pattern of entrainment, while the opponent continues with it just long enough to get caught. One way of executing this is through changing power and tempo of attacks.

During training over the last decade in my own martial arts club, I became aware as a percussionist how to execute my own strikes against training partners using different timing. Similarly, I found - as McGuire asserts in some of his own research - that embodiment is the ‘link between music and movement’ and ‘hearing’ fighting skills as music’ (McGuire 2014, p. 253-258). This connection of movement and flowing rhythm is explored through this push and pull dynamic, listening to an opponent, tuning in to the fluctuations of tempo, dynamics, velocity and speed; all components that can be similarly applied in electroacoustic music and live diffusion. Arrhythmic aspects can also be applied in both martial arts and electroacoustic music. I am using a variety of rhythmic devices: defined metre (polyrhythms); the lack of a distinct sense of pulse (arrhythmic); and sustaining devices, such as drones and repetition.

Extending from rhythm, I apply the centreline theory to points on a plane surrounding the body. Examples of this exist in other art forms such as choreography. Centreline theory in Wing Chun ‘sits strongly rooted in geometry, the motions and postures of two fighters are referred to in terms of lines, triangles, planes, pyramids and angles rather than as stances, punches and kicks’. (Williams 2004, p. 39)

The following diagram shows the centreline theory and gives us a visual description of how diffusion might look:
The following example shows how a similar principle is used in correlation with a term called ‘parallel shear’ by choreographer William Forsythe in his ‘methods for improvisation. Using this principle he took ideas of planes, lines, and curves to a new level, developing a language for dance improvisation. (Young 2007, p. 48)
Here we see the classical shapes of Euclidean geometry found in nature with structures based around fractals and other mathematical devices. As a consequence, Forsythe’s work can be seen as being strongly influenced by algorithms. In my own work, these shapes help me move between the regular and irregular and help me define planes and strata.

It can be said that space is susceptible to two kinds of breaks: one is defined by a standard whereas the other is irregular and undetermined and can be made wherever one wishes to place it. In this case, the principle behind the distribution of breaks is called a ‘module’; it may be constant and fixed (a straight striated space) or regularly or irregularly variable (a curved striated space). When there is no module, it is ‘statistical,’ possessing two aspects: whether the distribution is equal (nondirected smooth space) or rare / dense (directed smooth space). (Deleuze and Guattari, 1987)

The concept of flow in my work is explored as a live experience for the audience and performer; also a bridge between structure and form. In diffusion, this interplay is expressed to a point where I hope ‘the music flows until the energy is gathered to punctuate the final stroke’ (McGuire, 2014).
The electroacoustic work *Ma* was diffused live at Sheffield University Drama Studios as part of Sound Junction in 2012. There are no score references here as this work is *improvised* and diffused live in the space. This is the pivotal aspect of this work and was influenced by the *Dao de jing*. As stated in my programme notes: ‘Walls with windows and doors form the house, but the empty space within it is the essence of the house.’ The essence of the house is this vacuum:

   Thirty spokes meet in the hub,
   but the empty space between them
   is the essence of the wheel.
   Pots are formed from clay,
   but the empty space between it
   is the essence of the pot.
   Walls with windows and doors form the house,
   but the empty space within it
   is the essence of the house.
   (Lao Tsu cited in Feng et al, 1989)

Phenomenological approaches to embodied mind are relevant to both my martial arts practice and composition processes using technology. As I developed the work *Ma*, issues of intercorporeality from my own perspective through lived practice of martial art and composing became evident.

The literal translation of *Ma* is ‘space between’. The composition process for *Ma* is based on a series on interchanging impulses. These changes are the result of filtering sounds in such a way as to unfold them with small changes in direction over time so that the work evokes notions of the ‘in between’ – referencing the sublime,
which translated from the Latin word *sublimus* means sub - under, and *limin* - the threshold of consciousness.

**Materials**

The materials used in the composition include ambient recordings from the city, fragments of my recorded voice, and recordings of classical guitar harmonics. All sounds were manipulated further in the studio. The first section introduces my own voice and breath. Introduced at (0:15 – 0:47) near the start of this work it gradually fades out as new lower pulsating sounds are introduced, including stuttered granular synthesis sounds. At (3:50 – 4:00) a number of accented ideas are interspersed with longer durational sweeping grains of sound that fill the space moving across the body of the listener through panning. Careful use of cross fading also gives the audience the sense of a moving sound source. This sense of breathing ‘in and out’ with ‘gaps’ and ‘voids’ through expanding and contracting sound creates a ‘living space.’

Dutch musicologist Vincent Meelberg discusses this subtraction in relation to the concept of ‘the void’:

> According to both Bergson and Hansen, the body, as the primary enframer of information, functions as a filter that selects perceptions relevant to the body. This is a subtractive act, as the body takes relevant precepts from the unfiltered flux of perceptions. It introduces specific constraints on what can amount to relevant aspects of a percept (relevant to the body, that is), and the body is always functioning as this enframer during each perception. (Meelberg 2009, p.326)

The use of space is an intrinsic compositional element in the live diffusion of *Ma*. It allows the performance to form rhythmical *flow* and *flux*, engaging the audience with the composition, and the spaces between. The performance emphasises *living space* through the temporal relationship of live diffusion; I know when to expand / contract the sound, which resonates with the Zen spirit of *living space* / being-time (*u-ji*) and the concept of *Ma*.
I tried to achieve this in the live diffusion of *Ma*, focusing my attention towards sound parameters such as pitch, volume, rhythm, speed and the complexity of sound materials to create tension through liminality. This creative process gave me the opportunity to be aware of both absence and presence in my work, and apply this concept in a live performance setting with an audience.

**Influences - Éliane Radigue**

Through working with slowly evolving textures, *Ma* explores some similar kinetic relationships of sound to those heard in the works of Éliane Radigue. Through slow-building textural drones and layers the ‘near empty material’ is ‘perceived by both the conscious and subconscious mind’ (Akama, 2015). Radigue slows her sound down offering listeners a ‘sonic paradox’ (Gray, 2018). This slowness of sound reduced to extremes allows a transformative process and ‘translation of energy.’

There is also reference to ‘the void’ here. Šūnya means void, the doctrine of emptiness in Buddhism. It is an important aspect of the arts as the void is regarded as a place where creative practice evolves from a vacant state of mind of the artist.

Space was thought of as void - like the vacant holy zone - and even concrete objects were thought to be void within. Kami were believed to descend to fill these voids with spiritual force (chi). Perceiving the instant at which this occurred became decisively important for all artistic endeavor. *Space was perceived as identical with events or phenomena occurring in it;* that is, space was perceived only in relation to time flow. (Isozaki 1979, p. 71)

The collaborative installation piece *Induction* (Auerbach and Radigue) creates a synergy between visuals and sound that coexist in the space; the visual motifs present in Tauba Auerbach’s work (waveforms, helixes, fractals) have a sonic character reflected in Radigue’s composition, *OMNHT* from 1970. The architecture of the sound in Radigue’s composition is carefully crafted in accordance with Auerbach’s work emerging from interconnected fields, fluid dynamics, calligraphy, trance induction, and quantum consciousness. ‘The helix, a leitmotif across these works, stages the Eastern mystical idea that there is a fundamental connection
between living nature and the fabric of the cosmos' (Altschuler, 2018). Auerbach was influenced by Martin Gardner's *The New Ambidextrous Universe*, which deals with symmetry and asymmetry.

It is still important to relate some of these ideas of symmetry and asymmetry to European philosophy of the nineteenth and twentieth centuries as it becomes possible to shed light upon the concept of flux, in particular through the philosophy of Bergson.

The new physics which opened up during the nineteenth and twentieth centuries, which was matched by the emphasis on flux to be found in the philosophy of Bergson, became interested in liquids, in movements, in processes of change and exchange, thermodynamic, electrodynamic. (Connor, 2002)

*Ma* explores absence / presence through granulation techniques using micro-sound. Curtis Roads explains:

To granulate means to segment (or window) a sound signal into grains, to possibly modify them in some way, and then to reassemble the grains in a new time order and micro-rhythm. (Roads 2001, p. 98)

Through a push-and-pull of rhythmic grains, there are similar drone-like features layered throughout whilst a *flux* of more chaotic and frenetic rhythms weave in and out (5:15-6:04). It is through live diffusion and careful use of *synchronous* and *asynchronous* granular synthesis that I can further explore this relationship.

Synchronous granular synthesis can be heard in the vocal part and in the lower regular pulses that loop and phase in and out of *Ma*. Asynchronous parts go ‘against the grain’ of the synchronous parts through juxtaposed rhythms that sweep between higher and lower frequencies of sound correlating my choices in the moment of the performance. 'Because it is shapeless, it becomes the source of all shapes, which is a force.' (Toop 2004, p. 42)
‘We do not see things as THEY are, we see things as WE are’ – Anais Nin (Nin 1961, p. 124). ‘I’ve heard them lilting’ (Scottish traditional: The Flowers of the Forest)

*He is More Myself than I* reflects personal identity through continual transformation. The work is fragmented snapshots of history and events inflected through personal response in the form of an electroacoustic miniature.

Here I am referencing Chinese Aesthetics and the ‘Mencius’ dialectic of ‘heart’ - reflected in Chi’s text *The Great-Flowing River.* (Chi, 2009) In Chinese philosophy this concept relates to ‘inner life’. Chi’s memoir helps the reader to reflect on war and history and to rethink one’s tie to literature. This resonates with how I reflect on the past events of war - that I was not a part of but can empathise with. I also examine my own relationship with others. The work is a journey of narratives that move through time from the past (historical / time based in the recording studio) to the present and to the future; a journey of unfolding stories. This process captures Nancy’s *Being In and Being With:*

> The understanding of Being is nothing other than an understanding of others, which means, in every sense, understanding others through 'me' and understanding 'me' through others, the understanding of one another ...

... Being singular plural means the essence of Being is only as co-essence. (Nancy 2000, p. 27-30)

**Materials**

The composition process started from a studio recording constructed at the Soundhouse at The University of Sheffield. I recorded a folk singer performing a
traditional lament for the Scots killed at the Battle of Flodden in 1513 called ‘The Flowers of the Forest.’ I extracted the first line of the vocal to work as the basis of material for the composition. The singer also played harp in this recording session and this can be heard as part of this composition material.

As a regular visitor to Northumberland, I have visited the area of Branxton where the battle of Flodden actually took place (it is alternatively known as the Battle of Branxton). The landscape that was once a battlefield gave me a sense of material connection with the ground underfoot, allowing ‘embodied acts of landscaping’ (Lorimer 2005 quoted in Wylie 2007, p.166).

Chi’s text The Great-Flowing River is an autobiography (and one that sounds like a passage straight out of the Dao de jing). The Mencius dialectic of ‘heart’ is reflected in her writing and diasporic accounts of war. This allows the reader to connect to the timeline of her life through what Chi describes as ‘drawing a circle’ in the postface of the book: ‘Yes, the cycle. Before I started this book project, I followed my parents’ souls to make a homecoming journey. From the Dalian coast line, I looked toward the island that I have rooted and then returned back to Taiwan to write down my life story’ (Chi, 2009).

Within electroacoustic music, the unknown invisible traces of history as described by Chi were present in my mind throughout the compositional process. He is More Myself than I presents my sonic trace of history into the present through sound. Landscape as connected to sound; a sonic wandering.

Nattiez reminds us:

Human beings are symbolic animals; confronted with a trace they will seek to interpret it, to give it meaning. We ascribe meaning by grasping the traces we find. (1990, p.128)

The darker themes of war are developed through lower frequencies and the attacks and decays of the fragmented harp sounds. The voice is processed though ‘disruption / cuts’ with repeated extracts that dissolve and decay as the work evolves. This creates a spatial distance as the voice becomes more illusory.
When the voice decays, the listener can still sense its presence through absence; or, as Chion suggests, ‘when one senses the presence of a vocal persona through voice, he or she can still be felt as present even if the sound of the voice is absent’ (Chion 1991, p. 86).

A static field recording runs underneath the movement of the low frequency granulated sections in this work.

Through the creation of moments of stasis in *He is More Myself than I*, I draw closer to Nancy’s understanding of Being as described above. This work seeks to transform the temporal aspects of phenomenal ‘space’ and experience to a ‘space between.’
AXIOMATIC – Two States of a Kaleidoscope 55’02 (2017)

Format: stereo, audio-visual installation

AXIOMATIC – Two States of a Kaleidoscope was shown as part of an event called Superposition - ASMbly Lab in August 2017. The event consisted of a 12-day-long pop-up art science lab with the aim of generating new artworks and prototypes in a fast environment of cross-disciplinary collaboration between artists, scientists, and makers. There were also workshops, drop-in activities, an exhibition, talks, and a closing event with performers working with art, science, and making.

Figure 8: AXIOMATIC – Two States of a Kaleidoscope, Caterina McEvoy 2017
Creative context

AXIOMATIC – Two States of a Kaleidoscope is a work about presence and absence. The ebb and flow of the urban landscape provides the visual elements for this work - a train journey interspersed with natural images of water, use of reflections, buildings, and an awareness of background noise. A PureData/Gem patch manipulated these images to create a formation of lines and overlapping layers in the visuals, a disruption of flow. The context of the composition explored hidden acoustic spaces and non-human listening modes. Extended recording strategies were used to amplify a variety of acoustic phenomena at the thresholds of human perception. The source materials used in the composition included structural vibrations and contact microphone recordings. Ambiences, barely noticeable sounds, vibrations transmitted through empty spaces, and the like are the raw materials used in the composition.

There were several key influences to this work. Some were visual; some were musical.

My initial interest in applying to showcase my installation as part of Superposition was the appeal of the work that was ongoing in the region through co-founders Lawrence Molloy and Dave Lynch. Molloy’s (2010) visual project The Match Bonsai Project resonated with my interest in the mathematics of nature, Chaos theory, Fractals, and Quantum Theories.

Just as physical reality has structure at all levels of metric size, so it has structure at all levels of metric duration...And once more it is important to realise that smaller units are nested within larger units. There are events within events, as there are forms within forms...

(Gibson, 2015)
Arvo Pärt’s music was also important to me, both in terms of a musical crossover (mathematical construction) and a spiritual reverence (to nature). In his music there is always a residual note (or drone) that underpins a more active passage.

The music of Pärt clearly references the past (particularly Gregorian Chant) - music I have always enjoyed; music that is said to transcend the soul. Pärt’s sense of spirituality and introspective atmosphere is created through his use of simple repeated patterns that evoke ritual.

These collective patterns are also expressed in AXIOMATIC – Two States of a Kaleidoscope. Pärt’s own derived compositional system of *tintinnabuli* (from the Latin term for ‘little bells’) gave him the freedom to allow his music to decay into silence as can be heard when bells ring out. This feature of silence gives his works a haunting effect and this is something that I wanted to explore in my own work.

The appeal of *tintinnabuli* music as a distinct technique is its duality, which unites two monodic lines of structure – melody and triad – into one inseparable ensemble. I find Pärt’s music to expresses Daoist sentiment here, one that ‘borderlines presence and absence’ (Dolp 2017, p.96).

How does this transform into my own work? I was inspired to compose the electroacoustic part using decaying church bells, otherworldly ghostly sounds that were truly immersive. A feature of the work is macro-rhythm within the slow evolving drone textures. The decaying bell sounds are simultaneously static and in flux through continuing overtones and undertones of sound resonating beyond the point of dissolution. Multiplicity of both a material and immaterial substance is characterised by water as an in-between state.

All the images play the paradox of opposites with urban / natural landscapes.

By this I mean an entanglement of interwoven lines. These lines may loop or twist around one another or weave in and out. Crucially, however, they do not connect. This is what distinguishes the meshwork from the network. The lines of the network are connectors, each given as the relation between two points, independently and in advance of any movement from one toward the other…the lines of a meshwork, by
contrast, are of movement or growth. They are temporal ‘lines of becoming’ ... Life is a proliferation of loose ends. It can only be carried on in a world that is not fully joined up. Thus the very continuity of life – its sustainability, in current jargon – depends on the fact that nothing ever quite fits. (Ingold, 2011)

This randomness and unpredictability is something that Poincaré indicated within Chaos Theory and can be depicted in the following stills from Axiomatic – Two States of a Kaleidoscope which use geometric operations of stretching the digital images.

I was particularly interested how granulation techniques (in audio and video) create extensions yet maintain a sense of form, often through a relationship of planes, lines and curves. This self-similarity through expansion and compression relates directly to fractals and simple chaos theory.
Stills from Axiomatic – Two States of a Kaleidoscope
Figure 9: Stills from AXIOMATIC – Two States of a Kaleidoscope, (McEvoy, 2017)
I used an algorithmic Pure Data patch to manipulate the visuals in real-time which were then projected through layers of muslin cloth.

This ebb and flow can be loosely related to the sublime, where I try to test subjective boundaries, exploring and affirming the limits of the self and its relationship to nature, that of *flux* and *flow*.

The significance of the sublime can be found within Chinese calligraphy ink drawings of mountains and landscapes. European art from the mid-eighteenth century to the mid-nineteenth century includes natural forms such as clouds, mountains, and mist and similarly derives concepts of the sublime in the Romantic era. This work is related to a postmodern sublime, using repetition, pattern and irregularity, abstraction of visual elements and slowly evolving sound materials.

**Influence – Bill Viola**

Bill Viola’s early video work *Chott el-Djerid (A Portrait in Light and Heat, 1979)* also contains very similar connections to the sublime and is a reference point for *AXIOMATIC – Two States of a Kaleidoscope*.

*Figure 10: Bill Viola, Chott el Djerid (A Portrait in Light and Heat, 1979)*

The process of creation for Viola’s works normally takes the form of him shooting on 35mm film at very high speed. The footage is then drastically slowed, transferred to digital media, and projected onto plasma screens. This creates subtle shifts in light.
In *AXIOMATIC – Two States of a Kaleidoscope*, the images that were projected through muslin cloth in the space were further fragmented through this slowing down process to give the ethereality and immersion within the space that I was experimenting with.

The original floor plans were as follows:

![Diagram of AXIOMATIC, Two States of a Kaleidoscope Floor Plan, Caterina McEvoy (2017)](image)

*Figure 11: AXIOMATIC, Two States of a Kaleidoscope Floor Plan, Caterina McEvoy (2017)*

The diagram indicates the positions of the muslin cloth, which are vital to create this in-between-state of material and form in the space. The sublime effect is achieved through a reworking of the installation stills to create an ethereal immersive installation using smooth and striated multiplicity of textures.
This final installation work in the portfolio was accepted for exhibition in Venice in February 2019 as part of THE BODY LANGUAGE – ITSLIQUID International Art Exhibition 2019 held during the period of the Venice Carnival 2019 (See Appendix IV for further details).

The mission statement of the exhibition website resonates with some of the previous themes represented in the thesis:

**LIQUID** (lik'-wid): 1. a state of matter with definite volume but no definite shape, composed of molecules which move freely among themselves but do not tend to separate like those of gases. 2. a state of matter, between gaseous and solid, that flows and takes the shape of its container. 3. liquid architecture is a symphony of space, but a symphony that never repeats and continues to develop, is an extension of our bodies, and like us, it has an identity. (Novak, 2016)

Within my own representation of a symphony of space and liquid architecture, I re-address themes of flux and flow present within this thesis, drawing upon Merleau-Ponty’s philosophy of corporeal presence, listening, movement, technology, and virtual structures in real-time.

Bāguàzhāng is a Daoist style that I learned during the early 1990s. Its philosophy is rooted in ideas of adaptation and flow. At the heart of Bāguàzhāng is the I Ching, or the Book of Changes, an ancient Chinese
divination tool made up of 64 hexagrams that bring together yin and yang, choice and change, (flow and flux) our inner (flow) and outer (flux) worlds.

The ancient Chinese mind contemplates the cosmos in a way comparable to that of the modern physicist, who cannot deny that his model of the world is a decidedly psychophysical structure. The microphysical event includes the observer just as much as the reality of the I Ching comprises subjective, i.e., psychic conditions in the totality of the momentary situation. (Jung 1961, quoted in Schmitz 1991, p. 47)
Qi-transforming Embodiment

The focus of this work is characteristic of Qi-transforming embodiment considering the spatial configuration of the work through sound and image. I drew upon the characteristics of the hexagrams - the broken lines are Yin ‘Dragon’ line, the unbroken lines Yang ‘Tiger’ line - as a starting point. The mythology of the dragon and tiger is an inspiration for this work as strongly associated within Chinese Culture and featured in the symbolic form in the I Ching. It features in an abstracted form through the hexagram numbers 83 and 86 as chosen for this work in this installation through themes of fire (li), water (kan), flux, and flow.

A notional cosmological time-space occurs in the video in reference to the divination numbers consulted from the I Ching - Hexagram 83 ENTHUSIASM and 86 INTEGRATE. Eighty-three seconds equate to one minute and twenty-three seconds. The numbers 1, 2 and 3 also have symbolic reference to the I Ching:

The Dao produced One; One produced Two; Two produced Three; Three produced All things. (Lao Tsu cited in Feng et al, 1989)

The time reference will be unnoticed by any public audience to the work, however, the connection is highly relevant and addresses Merleau-Ponty’s corporeal presence through virtual structures in real-time. Both audio and video are manipulated through digital filtering and mimetic material. Saturation of colour levels and pixelated small pointillist grains through glitch techniques are used in a similar way to electroacoustic music techniques abstracting both image and sound. The work is shorter in duration as it is created to run on a loop within the space so visitors can enter the space as they feel. No start and end point exists; the work is meant to express cycles of yin and yang and of return.
Glitch Aesthetic

*Flow* relies in part upon a glitch approach. This involved changing and corrupting code, creating malfunctions in sound and image. It relates my understanding of flux, flow and the sublime through a process of inner searching.

Kim Cascone defines the glitch aesthetic as something relating to this inner spirit. The cluster of glitches forms an outline and defines an area. They trace a route through uncharted space. The errors inherent in glitch can be used to ‘navigate this space,’ with the intent of seeking ‘unexpected patterns, chance juxtapositions,’ and ‘subliminal content’ (Cascone, 2011). I used pulse and chance when manipulating sound and most recently this has developed towards a use of glitch. Flux in this instance becomes these unexpected patterns and chance juxtapositions. Flow becomes the navigation of the space.

I was interested in the process of the decaying tape sounds in *The Disintegration Loops* by William Basinski (2002). The background to this work is based on him picking up a book off a shelf in the studio called *The Way of Zen* (Watts, 1957) inspiring him to preserve some old tape recordings of music he recorded in the 1980s by transferring them to the digital domain. In the process of transferring the tapes to digital, he noticed the tape was gradually crumbling as it played. This affected the sound by creating a decaying process from the audio.

This process took place around the time of the September 11 attacks and from his rooftop space in Brooklyn he recorded on camera the smouldering Manhattan skyline. The next day he merged both the decaying tape sounds that were now digitized with his video footage creating a melancholic work. The process is gradual but focuses attention on what is left and what is not.

In *Flow*, I was interested in the disintegration process as a method, a form of fractured and heterogeneous space. *The Disintegration Loops* reminds me of cycles of change, of birth and death, very much attuned to the flow of life as experienced through transitions, i.e. the liminal.
Audio Visual Granulation
The projections of the subliminal images within the darkened space evolve slowly as does the graduation of light through spatial scattering of the video grains. The sounds used in the work evoke a mixture of yin and yang symbolism through natural sounds of field recordings based on broken and unbroken lines that have been processed using slow evolving rhythms and textures that gradually disintegrate and recede, expand and contract at points where yin and yang cross over.

Art is not simply the expression of an animal past, a prehistorical allegiance with the evolutionary forces that make one … but above all the transformation of the materials from the past into resources for the future … to be unleashed on a people ready to perceive and be affected by them. (Grosz, 2008)

This unleashing that Grosz considers is presented as the transformative state of the changing lines as the work progresses over time.

Animism
In Chapter 1, I described the function of mimesis in my work. Animism is an important aspect of mimesis as many of the kung fu styles are adapted from animal forms. Venice is famous for the Venetian mask as part of its culture and the exhibition runs during the Carnival of Venice. The connection between human and animals is steeped in history throughout different cultures; animal masks have been used in rituals throughout history or used for protection, disguise, entertainment. Masks have been used since ancient times to create altered states of consciousness.

‘The bird flies the sky and the sky flies the bird.’ Japanese Zen monk Dōgen Zenji (1200-1253) captures the Zen spirit here in the meaning behind this quotation as interpreted as a living space, an integrated time and space ‘being-time’ (u-ji) in which interdependence exists. It shows how the bird and the sky are independent but also how they are interdependent. This again is influenced by Daoism, the Way and maintains the interdependence of nature and humankind. Japanese Shinto has this cultivation in its music too, and much of the music connects this spirituality to Animism. This is the belief that everything – humans, animals, plants, rocks, etc –
possesses spirit. That connection is animated and alive and is reflected in *Flow*. The dragon is characterised as having awe-inspiring qualities as it roams through the clouds. It is suggested through the movement of sound in this work.

Intimacy within sound processing of materials is important to me. I relate many of my working processes to aspects of Chinese Cosmology that discuss microscopic and macroscopic dimensions (of sound in my compositions). This is of relevance to me as a composer in the post-digital listening aesthetic as I try to consolidate my own inner / spiritual connection with sound, ‘a reconciliation of matter and data.’ (Whitelaw, 93).

‘Clouds follow the dragon, winds follow the tiger’.

![Image of a dragon with clouds and text](Image)

*Figure 14: One of the cloud-followed dragons from The Nine Dragons hand scroll, painted by the artist Chen Rong in 1244 CE (located in the Museum of Fine Art, Boston, USA).*
Chapter 3. Final Reflections

[A] strange world in which bodies are dissolved into flows, objects are the residues of events, and effects are unmoored from their causes to float independently as virtual powers and capacities. (Cox 2013, p. 6)

Over the course of eight years I have found that the idea of flux and flow has been a guide, enabling me to structure works already in progress and inspiring me to create new sound art. I developed a greater understanding of what I was doing and the influence flux and flow - as philosophy - had upon my creative work.

I have found routes around problems where earlier concepts or ideas were not working, or needed development in and amongst the flux and flow. The ideas behind sonic flux that have emerged from post-Cagean thought and practitioners post-1960 have been discussed and I have demonstrated how their work has influenced my own practice (in particular the notion of embodiment).

I consider this portfolio as one that has developed as a companion to my own personal development - from Wu Wei through to the newer installation works AXIOMATIC – Two States of a Kaleidoscope and Flow. The additional pieces are no less important and meaningful to the concepts of Flux and Flow but I feel they were all leading to these final works. Therefore, I would consider the work Flow to be a self-returning work relating to the cyclic nature of Dao (the Way), reflecting the title of the thesis: Blue Dragon, White Tiger: The Paradox of Flux and Flow in Sound Art and Martial Arts. It features the interdependence of the other as symbolised in yin and yang, as one that flows and changes with time. I look forward to continuing going with the flow…
References


Viola, *Chott el Djerid (A Portrait in Light and Heat*, 1979)


Appendix I Programme notes and performances

*Wu-Wei, 2010, stereo, 8’15*

Wu (Nothingness) - Wei (Action or result).

"Capability and incapability coexist. That is in the nature of all things. Advantages and disadvantages exist side by side. That is in the nature of all situations." (Sunzi, cited in Sun et al, 1996)

I have an interest in these Taoist principles and the material for this piece work as a combination of sounds both processed and unprocessed. The sounds have been recorded from original recordings and worked together to create this composition using pure data patches and other sound processing environments. Taoist principles in this composition point to the state of Wu-Wei or going with the flow. The essential message of Taoism is that life constitutes an organic, interconnected whole which undergoes constant transformation, which has been a result of the composition processes involved in the development of this piece. In the terms of Alan Watts, nondoing is what we mean by going with the grain, rolling with the punch... (Tao: The Watercourse Way, Pantheon Books, 1973.)

**Performances**

- 30th May, 2010 - The University of Sheffield Drama Studios, Sound Junction
**Incognito, 2010, stereo, 3’49**

Incognito is a stereo composition comprised mainly of processed classical guitar samples created through my exploration of granular synthesis. The original sound source being extracted from a classical guitar recording I made early last year (2009). The piece evolves with several granulations throughout resulting in ambient-based drones, and shimmering textures. The composition begins with sparse ping-pong noise-derived sounds with underlying tonal elements giving a free-flowing rhythmic element to the piece. The tonal characteristics of the classical guitar samples begin to emerge within the piece but remain `Incognito' throughout.

**Performances**

- 16th December, 2010, The University of Sheffield Drama Studios, Sound Junction (Winter)
Bui Jee, 2011, stereo, 9'50

‘The movement of the fingers should be like striking bronze bells or sonorous stones. Slow or quick, no secondary sounds shall be produced, so that when hearing these tones one obtains an impression of purity – as of a pool in autumn; of brilliancy - as of the shining moon; of dim resonance – as of the babbling water in mountain gorges; of profundity – as of a resounding valley. These tones shall in truth freeze alike heart and bones, and it shall be as if one were going to be bodily transformed into an Immortal.’ (van Gulik 1939, p. 431)

Performances

- 8th November, 2011, The University of Sheffield Drama Studios, Sound Junction
Ma, 2012, stereo, 7’00

Japanese word for ‘gap’, ‘space’, ‘pause’ or "the space between two structural parts."

Thirty spokes meet in the hub,
but the empty space between them
is the essence of the wheel.
Pots are formed from clay,
but the empty space between it
is the essence of the pot.
Walls with windows and doors form the house,
but the empty space within it
is the essence of the house.

Lao Tsu eleventh chapter of the Tao te ching

Performances
  o 8th June, 2012, The University of Sheffield Drama Studios, Sound Junction
He is more Myself than I, 2015, stereo, 5'45

‘We do not see things as THEY are, we see things as WE are’ – Anais Nin (Nin 1961, p. 124). ‘I’ve heard them lilting’ (Scottish traditional: The Flowers of the Forest)

He is More Myself than I reflects personal identity through continual transformation. The work is fragmented snapshots of history and events inflected through personal response in the form of the work composed.

Performances

- 23-26 June 2015, The University of Sheffield Drama Studios, Sound Junction

Composition aired on Danish Radio station The Lake Radio (May 2016)
http://thelakeradio.com/
AXIOMATIC – Two States of a Kaleidoscope, 2017, stereo, audio-visual installation 55'02

AXIOMATIC – Two States of a Kaleidoscope was shown as part of an event called Superposition - ASMbly Lab in August 2017. The event consisted of a 12-day-long pop-up art science lab with the aim of generating new artworks and prototypes in a fast environment of cross-disciplinary collaboration between artists, scientists, and makers. There were also workshops, drop-in activities, an exhibition, talks, and a closing event with performers working with art, science, and making.

Performances

- 5th August, 2017 Superposition - ASMbly Lab, St. John's Centre Leeds
Flow, 2018, stereo, audio-visual installation, 8’49

Exhibited as part of THE BODY LANGUAGE – ITSLIQUID International Art Exhibition 2019 that will be held in Venice during the period of Venice Carnival 2019, at the art gallery THE ROOM Contemporary Art Space, from February 22 to March 22, 2019

LIQUID (lik'-wid): 1. a state of matter with definite volume but no definite shape, composed of molecules which move freely among themselves but do not tend to separate like those of gases. 2. a state of matter, between gaseous and solid, that flows and takes the shape of its container. 3. liquid architecture is a symphony of space, but a symphony that never repeats and continues to develop, is an extension of our bodies, and like us, it has an identity.

THE BODY LANGUAGE analyzes the hidden parts of our identities, through an immersive experience inside the fascinating universe of the complex labyrinths of our consciousness.

The human body is a changing system that connects us with other bodies and spaces to perceive the surrounding reality; a strong communication system with its own language and infinite ways of expression.

The exhibition will be presented during the period of Venice Carnival 2019 and we invite artists to be inspired by the magical power of Venetian costumes, exploring the connection between desires, needs, fears through rituals that brings human kind to change, to transform and to evolve their inner world.

Performances

- February 22 to March 22, 2019, THE ROOM Contemporary Art Space, and at Misericordia Archives, Venice, Italy
Appendix II Conference Paper
Bruce Lee’s Cultural Legacies, Cardiff University, 11 - 12 July 2018

Flux and Flow: An Exploration of Sound Art and Martial Arts Related to the Ideology of Bruce Lee

Adapted text located in Abstract

Candidate was the sole author on this paper
Appendix III SURFACES – ITS LIQUID International Art and Architecture Festival

SURFACES Festival Places | Spaces Exhibition Acceptance email:

Dear Caterina,

thank you very much for your email and for presenting your amazing installation work. It is a great installation and we could suggest to you a room dedicated for this installation.

I read in the submission that you desire to participate in both exhibitions PLACES and SPACE, right?

Of course in order to confirm your participation because we are very interested in showing your installation, I need to know if all equipment needed for the installation will be provided by yourself or not.

The installation seems perfect for SURFACES FESTIVAL and we would like to give you this possibility to share your artwork in Venice.

Waiting for your response.

Yours sincerely,
Carmen Loiacono
Project Coordinator
+39.0695234018
internationalartxpo@gmail.com

Arch. Luca Caric
Director
+39.3397574008 (whatsapp/viber)
lucacurci@lucacurci.com
facebook: https://www.facebook.com/lucacurci
skype: lucacurci.com

ITS LIQUID GROUP
Corso Vittorio Emanuele II, 33
70122 Bari (Italy)

Calle Larga San Marco, 374
30124 Venezia (Italy)

+39.0695234018
+39.3397574008

www.itslquid.com
ITS LIQUID GROUP, in collaboration with Venice Events and Ca’ Zanardi, is pleased to announce the open call for SURFACES – ITS LIQUID International Art and Architecture Festival.

SURFACES FESTIVAL will be presented in Venice at Palazzo Ca’ Zanardi (from May 25, 2018 to November 25, 2018) and THE ROOM Contemporary Art Space (from May 26, 2018 to November 25, 2018), and other prestigious venues and historical buildings, during the same period of the BIENNALE ARCHITETTURA 2018 – 16th International Architecture Exhibition, titled FREESPACE, curated by Yvonne Farrell and Shelley McNamara, chaired by Paolo Baratta, and hosted at the Giardini and the Arsenale, and around other venues in Venice.
Appendix IV THE BODY LANGUAGE, ITSLIQUID International Art Exhibition 2019

Sound Art Installation: Flow (Caterina McEvoy, 2018)

ITSLIQUID Group, ITSLIQUID Group, in collaboration with VENICE EVENTS, is selecting all interesting photos, paintings, video art works, installations/sculptures and performance art works to include in the next event THE BODY LANGUAGE – ITSLIQUID International Art Exhibition 2019 that will be held in Venice during the period of Venice Carnival 2019, at the art gallery THE ROOM Contemporary Art Space, from February 21 to March 22, 2019.

THE BODY LANGUAGE analyses the hidden parts of our identities, through an immersive experience inside the fascinating universe of the complex labyrinths of our consciousness. The human body is a changing system that connects us with other bodies and spaces to perceive the surrounding reality; a strong communication system with its own language and infinite ways of expression.

The exhibition will be presented during the period of Venice Carnival 2019 and we invite artists to be inspired by the magical power of Venetian costumes, exploring
the connection between desires, needs, fears through rituals that brings human kind to change, to transform and to evolve their inner world.