

## *Sonorous City - London Soundscape Project*

...how do we listen to sounds never before noticed, sounds long vanished, or sounds that are not sounds, exactly, but more like the fluctuations of light, weather and the peculiar feeling that can arise when there is a strong sense of place? (Toop, 2007: 112)

My work explores the dialogue between sound and space. More specifically, it focuses on the relationship between the soundscape and our perception of the urban environment.

During my most recent project, *Sonorous City*, I chose to investigate this in relation to my own experience of London. I felt my interaction with the city was becoming increasingly dislocated and often dictated by routines of work and necessity. If, as Lefebvre presupposes, the city is expressive of a person's being and consciousness, then this feeling of dislocation and lack of exploration could potentially sever an individual's connection with their city and thus their self (Kofman & Lebas, 1996: 11).

To remedy this I embarked on a series of journeys stemming from the River Thames, taking my influence from Situationist ideas of urban exploration; namely psychogeography and *dérive* (Debord, 2006: 50). I didn't plan any routes, I simply let the allure of the landscape and the sounds I experienced lead me towards my next location. These *soundwalks*, or *sonic dérives*, through London's urban terrain were the initial steps I took towards freely recreating my experience of the city. It gave me the opportunity to examine how my perception of the spaces encountered was being shaped by the sounds present and vice versa. En route I collected and recorded the material I used to create my final piece - an immersive surround-sound installation that revealed an experience of London led by the ear.

My methodologies and aesthetic decisions have been strongly influenced by experimental music and sound-based artistic practise - in particular, Acoustic Ecology, defined by R M Schafer as

...the study of the effects of the acoustic environment or SOUNDSCAPE on the physical responses or behavioural characteristics of creatures living within it. Its particular aim is to draw attention to imbalances which may have unhealthy or inimical effects.

Over the last four years, the Positive Soundscapes Project has been trying to identify and find solutions to these imbalances in both London and Manchester. Similarly, the New York Society for Acoustic Ecology has spearheaded several community-based soundscape projects, such as *Sound Seeker* and *City in a Soundwalk*, which encourage participants to actively engage with their sonic environment and reflect upon its impact on their daily lives (NYSAC, 2007: 55).

Although I focused more on my individual experience of London's soundscape, I see *Sonorous City* as running parallel to those projects aforementioned. Whilst the agency of

getting people to engage with a city's soundscape via a composition within an installation space may differ from their methods, a common goal is shared; to heighten the sensitivity of people's ears and help them establish a stronger connection with their environment through listening.

Another important strand of my research grew out of my interest in synaesthesia, a condition in which one sensory modality directly stimulates a perceptual experience in another. For example, a synaesthete might be able to *hear* a colour, or *taste* a shape (Dann, 1998). I've always been fascinated by the viscosity of sound, particularly how visual ideas of texture, gesture and transformation can be translated into a sonic language and vice versa. To me, soundscape composition is an inherently audio-visual medium, as our experience of it unfolds in the mind's eye as much as the ear.

The installation space of *Sonorous City* attempted to bring the synaesthetic nature of how we can experience sound and music to the fore. By controlling certain sensory elements within the environment, the experience of the space strove to shift the balance of power between the senses of the audience; the *viewer* becomes the *listener*. On entering the space, the audience is greeted with the smell, touch and momentary sight of pebbles and other items collected around the River Thames. As they venture deeper into the space, they become enveloped within a surround-sound image of the River and confront a still blue light shining on a plinth seat. Upon sitting, they are plunged into darkness and the soundscape morphs from the River to a random part of London: a bustling market place, a snow-covered dock, a desolate estate at dusk. The ear guides the rest of the experience, encouraging the audience to interpret the imagined environments they perceive freely and in their own individual way.

The following essay formed part of my research for *Sonorous City* and contributed to the way I approached my final installation. In search of a wider view of how artists working in different mediums experiment with the relationship between the eye and the ear, I compared the compositional processes of two abstract painters to their equivalents in the world of experimental music.

### **Comparing the relationships between music and image-making in the works of Kandinsky and Klee with that of Electroacoustic composers.**

The aesthetic of the Russian abstract painter Wassily Kandinsky (1866-1944), was greatly influenced by his sensitivity towards music throughout his life. In his seminal text *Concerning the Spiritual in Art*, Kandinsky constructed a treatise for composition that aspired to cause vibrations in the viewer's soul, stemming from the expression of the artist's 'inner need'; an art that rejected the 'outer' materialism of the times through the purely representational (Kandinsky, 1977). For Kandinsky, these 'vibrations' could '...only be achieved through a visual language independent of the forms of reality.' (Dabrowski, 2003: 79) He perceived music as one such language, capable of reaching an abstract form of expression that could resonate deep within the listener's being.

Kandinsky greatly admired the works of Austrian composer Arnold Schoenberg, whom

he befriended shortly after attending a concert of his works in 1911 (Wasserman, 2003: 23). Schoenberg rejected the traditions and rules of harmonic resolution (consonance) within the western tempered scale, and thus developed the chromatic scale, a 12-note system that freed dissonance from its obligation to be resolved. His controversial 'emancipation of dissonance', which removed the recognition of the key of a piece of music, sought to break down the hierarchy of notes within traditional tonality. This was something Kandinsky could understand and relate to within his own work. The use of a 'single pictorial key' in *Composition V* (1911) rendered 'in muted greys with only a few touches of brighter colors [sic]' could be seen as a move by Kandinsky to disrupt any hierarchical relationship between the colours (Dabrowski, 2003: 90). Kandinsky and Schoenberg shared similar compositional objectives in their respective arts; they explored new relationships between colour and form away from the traditional languages of expression. Schoenberg's early atonal pieces, based on his theory of emancipation of dissonance, allowed him to treat timbre, texture and the colour of tones as equally fundamental to music as pitch (Ronsen, 1975: 107). Likewise, Kandinsky integrated ideas of harmonic dissonance within his oeuvre, in compositions such as *Impression III (Concert)* (1911). Based on one of two sketches made during a Schoenberg concert, Kandinsky's piece may be viewed as a visualisation of dissonance. The lurid discord of vibrant yellow juxtaposed against the abstracted form of the black piano morphs 'the instrument that created the sound into an embodiment of the sound itself.' (Wasserman, 2003: 23) Soon after the concert Kandinsky wrote a letter to Schoenberg, empathising with his work. Kandinsky praised his treatment of sonic forms saying that the freedom inherent in "...the independent life of the individual voice in your compositions, is exactly what I'm trying to find in my paintings" (cited in Wasserman, 2003: 25). Perhaps this individual voice that Kandinsky relates to his own work is the voice of colour and form - the constituent parts of composition that he attempted to free from representation through his development of an individual abstract language (Kandinsky, 1977).

It has been documented that Kandinsky was able to visualize colour and form vividly whilst listening to music. One account of this was his description of experiencing Wagner's *Lohengrin* in 1896: "I saw all the colors [sic] in my mind; they stood before my eyes. Wild, almost crazy lines were sketched in front of me" (cited in Dabrowski, 2003: 83). Some attribute his overt sensitivity towards sound to synaesthesia, a neurological condition that takes the input of one sensory experience and translates it into another. For example, a synaesthete who has 'colour hearing' may respond to certain spoken words (auditory information) by *seeing* a specific colour. According to case studies in the book *Synaesthesia: the Strangest Thing*, this *seeing* is not necessarily an image in their mind's eye, but rather the feeling or sense of that image. True synaesthetes develop a strong idiosyncrasy with their stimulus trigger (e.g. the name Lucy) and their particular linked response (e.g. the colour blue). This link never changes and many synaesthetes describe having had these links as far back as they can remember (Harrison, 2001). It is possible that Kandinsky did have colour hearing, as hinted at in *Concerning the Spiritual in Art*. He forms strong relationships between sound and colour in terms of frequency and timbre: linking low frequency tones, like deep bass to darker colours and high frequency tones, such as a shrill trumpet-note to brighter colours like lemon yellow (Kandinsky, 1977: 49). Kandinsky's sensitivity also extended towards 'the haptic (prickly versus

smooth) and thermal (cold versus warm) properties of colour' (Dann, 1998: 56), as seen in his schematics within the chapter *The Language of Form and Colour*. All these compositional approaches sought to propel his work towards an abstract fusion of the senses in visual form, modelled on music's non-material ability to express inner need:

Colour is the keyboard, the eyes are the hammers, the soul is the piano with many strings. The artist is the hand which plays, touching one key or another, to cause vibrations in the soul. (Kandinsky, 1914: 52)

Paul Klee (1879-1940) was another painter who, like Kandinsky, explored a compositional approach that stemmed from 'the condition of music' (Kagan, 1983: 155). Originally trained in music, Klee had aspirations of becoming violinist, which he later abandoned in favour of visual art (Hall, 1992: 5). Music was still very important to him though, citing composers of the classical tradition, like Mozart, as a great influence. During his time teaching at the Bauhaus he developed a visual language that reflected upon ideas of musical harmony, polyphony and rhythm (Zilcher, 2005: 55). He coined the term 'structural rhythm' to describe how several parallel lines can function together to create patterns and attempted to 'translate temporal elements (rhythms) from music into painting.' (Duchting, 2002: 35) In a study of Bach's *Sonata No. 7 in G Major* he made a schematic for the registration of pitch. He used this as a means of explaining music's 'structural' functionality (larger units that could be divided due to repetition without variation) and 'individual' functionality (irregular units that do not repeat), ideas that he then incorporated into his painting (Duchting, 2002: 36).

He also developed the idea of polyphony (multiple voices) within works such as *Three Subjects, Polyphony* (1931). To my eyes, the three overlapping visual forms seem to build a harmonized relationship like a chord in music. However, it seems as though their relation to one another needs time to unfold. The interweaving lines, shadowed in brown and pink help to define a more complex form of 'endotopic' and 'exotopic' space, which Hall (1992: 92) equates to the time needed to understand the harmonic relationships and overall timbre of the notes that make up a chord.

Kandinsky and Klee appropriated different schools of musical thought into their visual language; the former finding an analogy between visual abstraction and atonal music, and the latter incorporating the rules of harmony and rhythmic structure into his image-making. However, it could be said that in both cases, their musical understanding was confined to the traditions of Western tonality, a vernacular comprised of 'metrically organized harmonic and melodic relationship.' (Smalley, 1986: 61) Even though Schoenberg rejected traditional notions of tonality, he still utilized an intuitive approach to harmony, leading to a music whose harmonic tension was still reminiscent of tonal music (Wishart, 1996: 40). It wasn't until the later developments of experimental music in the 1950's, that musical understanding moved away from its traditions within tonality. Influenced by Zen Buddhism, composers such as John Cage attempted to free music from the constraints of its heritage simply by letting a 'sound exist, itself, in a changing sonorous environment' (cited in Nyman, 1999: 50). This notion of liberating sound from causality was an idea later explored in the work of Pierre Schaeffer, the founder of

acousmatic music (Wishart, 1996). Schaeffer's oeuvre strove to draw the listener's attention to the intrinsic properties of sound through the method of *reduced listening*, 'the apprehension of a sound without relation to its source.' (cited in Wishart, 1996: 129) Schaeffer treated sounds, once removed from their context through recording and played back over the loudspeaker, as *sound-objects* and developed an approach that explored the intrinsic (e.g. textural, timbral and transformational) possibilities of sound within musical composition (Wishart, 1996).

These new methods of analysing the 'life' of a sound, were later adopted in the compositional approaches of composers working within the genre of electroacoustic music, who recognized 'the inherent musicality in all sounds.' (Smalley, 1986: 61) A wider palette of sounds had become relevant and readily available to these composers through technology and a new aesthetic approach to music was developed. Electroacoustic composer Trevor Wishart incorporated the Schaefferian notion of the sound-object into his music (Wishart, 1996). However, Wishart and other composers within the genre felt that solely focusing on the intrinsic characteristics of a sound was too narrow, since most people's natural response to hearing a sound is to relate it to its source (Smalley, 1986). This led Wishart to develop a method of using the extrinsic (e.g. the cultural, metaphorical and associative) aspects of sound along with the intrinsic (Wishart, 1996). He invented the concept of the *sound-image* to describe his compositional approach: transforming the visualization of a sound in the mind's eye and utilizing its extrinsic features to create symbolic links between these conjured images. In his composition *Red Bird* (1978) he transformed the voice of someone saying 'Liss...' (from the word listen) into the sound of birdsong (a metaphor for flight), allowing the voice to 'take flight' and suggesting a 'metaphorical link with the concept of 'imagination'' (Wishart, 1996: 166). Though Wishart concentrated on the metaphorical links between evoked sound-images in *Red Bird*, the wider aesthetic electroacoustic music was to explore 'how the imagery evoked interacts with more abstract aspects of musical composition' (Emmerson, 1986: 7).

## Conclusion

To me the ability of the Electroacoustic composer to visualise sound shares common ground with the work of Kandinsky and Klee. Electroacoustic compositions may explore a combination of representational and non-representational sound-images through intrinsic and extrinsic approaches to material. The piano in Kandinsky's *Impression III (Concert)*, could be seen as both as the extrinsic, representational form of the instrument itself (the source of the sound and its wider symbolic meaning), and a manifestation of the behaviour and character of the sound (the intrinsic). I perceive the piano as somewhere in between the two, since although it is an abstract form, it may still be recognised as a piano due to its contextual relationship to other forms. This mirrors some of Wishart's ideas about giving clearer meaning to sounds of a more abstract nature, through the juxtaposition of more representational elements (Wishart, 1996: 157). In contrast, Klee's piece *Three Subjects, Polyphony*, which plays off the functionality of rhythm and polyphony in tonal music, can be seen as an examination of the possible relationships between sounds in the creation of a chord. Rather than hinting at the source

of any single sonority, as Kandinsky's piano does in *Impressions III*, this piece uses the three interlocking lines to hint at the gestural movement of three separate tones over time. Klee's approach to incorporating musical ideas in his painting seems more centred around structural and temporal relationships of music within the Western tonal tradition, with perhaps less of a focus on the intrinsic properties of sound. On the other hand, Kandinsky's synaesthetic experience of music leads me to believe he did have an understanding of intrinsic properties of sound and how it can behave, as described previously in his response to Wagner's *Lohengrin*.

Whilst Kandinsky and Klee used music as a catalyst for the creation of a new visual language, electroacoustic composers used the imagery evoked by sound to develop new approaches to musical discourse. Although the methodology differs in technique, what is central to both is the objective of forming a new coherent language based on the relationship between the eye and the ear.

## **Bibliography**

### **Books**

Brougher, K. Mattis, M. Strick, J. & Zilcher, J. (2005) Visual Music: Synaesthesia in Art and Music Since 1900 London: Thames & Hudson

Cavendish, M. (1975) A Popular History of the Arts, Severn Valley Press Limited

Costa Meyer, E. & Wasserman, F. & (2003) Schoenberg, Kandinsky, and the Blue Rider London: Scala Publishers Ltd

Dabrowski, M. (2003) First loyalties: Schoenberg and Vienna's classical tradition In: Costa Meyer, E. & Wasserman, F. & (2003) Schoenberg, Kandinsky, and the Blue Rider London: Scala Publishers Ltd

Dann, T (1998) Bright Colours Falsely Seen: Synaesthesia and the Search for Transcendental Knowledge New Haven: Yale University Press

Debord, G. (2006) Theory of dérive. In: Knabb, K. Situationist National Anthology (Revised and Expanded edition) AK Press

Duchting, H (2002) Paul Klee: Painting Music London: Prestel

Emmerson, S (1986) The Language of Electroacoustic Music London: Macmillan Press

Hall, D. (1992) Klee London: Phaidon Press Ltd

Harrison, J (2001) Synaesthesia: The Strangest Thing Oxford: Oxford University Press

Kagan, A. (1983) Paul Klee: Art & Music, Cornell University Press

Kandinsky, W. (1977) Concerning The Spiritual in Art, Dover Publications Indiana: Indiana University Press

Kofman, E. & Lebas, E. (1996) Lefebvre: Writings On Cities, Massachusetts: Blackwell Publishers

New York Society for Acoustic Ecology (2007) New York Society for Acoustic Ecology, In: Carlyle, A. Autumn Leaves: Sound and the Environment in Artistic Practise, Paris: Double Entendre

Nyman, M. (1999) Experimental Music: Cage and Beyond 2<sup>nd</sup> Edition Cambridge University Press

Schafer, R. M. (1977) The Soundscape: Our Sonic Environment & the Tuning of the World Vermont: Destiny Books

Smalley, D. (1997) Organising Sound, Cambridge University Press

Toop, D. (2007) To Move Within Sound, In: Carlyle, A. Autumn Leaves: Sound and the Environment in Artistic Practise, Paris: Double Entendre

Wishart, T. (1996) On Sonic Art, London: Routledge

### **CDs**

Costa Meyer, E. & Wasserman, F. (2003) Schoenberg, Kandinsky, and the Blue Rider London: Scala Publishers Ltd

Wishart, T. (1996) On Sonic Art, London: Routledge