

## *The Caress of the Audible: Re-sounding Falkland*

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In art, touch is mostly a deferred sense. Historically, the opportunity to handle or caress has not been encouraged, at least at the point of reception. Museum and gallery curators lay awake at the thought of fingernails flaking away antique paint, greasy palms smearing pristine screens, or delicate constructions collapsing to the ground in a heap of constituent parts. The audiences are kept at a safe distance. If more social, encounter driven art practices that break such embargoes on physical handling have emerged in recent years, the rule is still very much to 'look but not touch'.

Does a consideration of the haptic prompt productive insights in to the functioning of art practice? Jennifer Fisher's (1997) definition is useful in clarifying the affective range of this embodied sense:

The haptic sense, comprising the tactile, kinaesthetic and proprioceptive senses, describes aspects of engagement that are qualitatively distinct from the capabilities of the visual sense. Where the visual sense permits a transcendent, distant and arguably disconnected, point-of-view, the haptic sense functions by contiguity, contact and resonance. The haptic sense renders the surfaces of the body porous, being perceived at once inside, on the skin's surface, and in external space. It enables the perception of weight, pressure, balance, temperature, vibration and presence. (Fisher 1997, 4)

The haptic therefore extends the list of Lockean secondary qualities as something produced in the space of encounter. That is to say the qualities supplied in the interface between the object and the observer (i.e. colour, smell, sound etc), as distinct from the 'primary' ones that are inherent to the object itself, such as mass or physical dimensions. As such the haptic transgresses the ontological attributes of an art object that are assumed when it is considered solely at visual remove. This has implications for both production and reception. We are, in short, enmeshed in the artwork as much as it is enmeshed in us.

How then, as producers, might we consider the role of the haptic in the production of work? Our durational art project *Re-sounding Falkland* focussed on sound and the interaction of sound with visual media, in an exploration of designed spaces on the Falkland Estate in Fife, Scotland<sup>i</sup>. When one is asked to discuss these various works in relation to touch, the first thought is to regard this particular sense as far from central to either the work's methods of construction or forms of address. However, on consideration, the issue raises some interesting questions: what is the role of touch in the creation and experience of audio-visual media? Are the senses that most obviously correspond to the media being used - sight and hearing - the only ones that should be considered? Which aspects of the audio-visual experience can be re-assessed or enhanced by such a consideration?

To give a brief overview of the *Re-sounding Falkland* project: in the autumn of 2007 we embarked on the research and development phase of this sound-based project on the Falkland Estate. Since then we have engaged in three phases of work: *Arcadia* (April 2008), an eight-channel audio piece produced for the tapestry gallery in Falkland Palace, *Falkland Audiowalk* (July 2009), a pre-recorded MP3 player -based walk around the grounds of House of Falkland and the Maspie Den gorge and, to conclude, a series of sited audio and video installations shown over a weekend in May 2010. These installations included *Cascading*, a six-channel audio piece exploring the alleged 'tuning' of the nineteenth century cascades constructed in the grounds of the House of Falkland, *Temple of Decision*, a video installation which investigated the ruin of the eponymous nineteenth century folly, and *Chase a yard worse than last*, a live work which involved the playing of 'Real' Tennis, on the historic court in the grounds of Falkland Palace. We will look at these three installation works in more detail later.

The most obvious way to consider touch in relation to sound is to look at the way sound operates as a vibration through the air that is picked up and converted to electrical signals that can be processed and interpreted by the brain. Sonic vibrations can also be felt most clearly in relation to low frequency and / or loud volumes. Therefore, in situations where

specific frequencies and /or amplitude are being enhanced, the distinction between hearing and feeling might begin to blur. The visceral impact of both high volume and low bass frequency has exercised a number of theorists in recent years, especially in relation to cultural forms that make particular use of it, such as dance music, reggae and film and videogame surround sound systems. Julian Henriques (2005) discusses low frequency and amplification in relation to the reggae sound system, a practice that, he considers, creates a situation of ‘sonic dominance’. This situation of sonic dominance occurs, ‘when and where the sonic medium displaces the usual or normal dominance of the visual medium. With sonic dominance sound has the near monopoly of attention. The aural sensory modality becomes *the* sensory modality rather than one among the others of seeing, smelling touching and tasting’ (Henriques 2005, 452 original emphasis). For Henriques the reggae sound system is a very tactile experience. As he describes it, ‘(t)his volume of sound crashes down on you like an ocean wave, you feel the pressure of the weight of air like diving deep underwater... The bass line beats on your chest, vibrating the flesh, playing the bones and resonating the genitals’ (Henriques 2005,452). Expanding on this work Steve Goodman (2007) posits the emergence of a ‘sonic philosophy’ that he dubs ‘bass materialism’, and proposes that a consideration of the sonic can potentially open up new lines of philosophical enquiry and wider understanding of affect and the human sensorium. As Goodman suggests:

Sonically provoked theory opens a privileged portal into the amodal or transensory. Bass figures in this materialism because of all the frequency bands within a sonic encounter, it most explicitly exceeds mere audition, activating the conjunction with haptic perception –bass is not just heard but is felt, is tactile (Goodman 2007, 64).

In this context sound as touch is clearly apparent, as is the idea that through the extremity of the sonic onslaught provided by sound systems, sound can reconfigure and challenge both sensorial divisions and hierarchies. Yet can we also see these shifting sensory categories in forms or works whose recourse to volume and amplitude is less clearly marked?

Academic interest in frequency tends to be closely linked to the current focus in cultural studies on question of the affective nature of media forms and the indication from science (Durie 2005) that we have a considerably expanded sensorium beyond the Aristotelian five senses of sight, hearing, smell, taste and touch. These additional senses are still being identified and investigated, and include those that deal with the sensing of the body's internal processes, position, movement and temperature, in other words, the haptic, as well as a 'sense of time' being understood as a sense in its own right. While looking at one sense it is also difficult to ignore the other senses, given contemporary understandings of perception and perceptual faculties as a 'system' which functions to explore, monitor and interact with the exterior world and the body. Ecological theories of perception, developed primarily by James Gibson (1966 and 1979), take human perception to be, in essence, exploratory, searching for sources of stimulation to uncover information about the environment. According to these theories the perceptual system also 'self-tunes' to increase its absorption of information from the environment and to optimise its 'resonance' with it.

With this expanded range of more finely delineated senses within a perceptual system, the idea of separating out any one of the senses from the others, or of exploring their interrelationship, is problematic. How one might deal with this theoretically raises questions that touch on a range of disciplines including philosophy, psychology, and neurology. By blurring the distinct divisions of the senses one might also bring in to play the apparent 're-allocation' of sense data from one sense to another as is seemingly experienced with synesthesia. A rare and complex phenomenon, synesthesia has long been an object of fascination for artist and scientists alike.<sup>ii</sup> Although a detailed examination of these areas is beyond the scope of this paper, as well as of our practice, as artists we can explore these ideas, create experiences and ask questions.

Along with practices that explore the affect of low frequencies, there is sound based work that investigates the way sound can be experienced physically, that is, as a more bodily experience. Artistic research in this area does not have to be technologically complex. For example, the American composer Judy Dunaway (an ex-student of the eminent composer Alvin Lucier) has explored the tactile qualities of sound using the balloon as a conduit for

‘sound as vibration’ for many years. This simple object has been employed in over forty compositions since 1990, as, for instance, in her artwork *Manual Eardrums* (2002), a ‘sound installation about feeling sound with one’s hands’ instead of, or in addition to, one’s ears. This act of making manifest sound passing through the body has an interesting historical precedent. As David Toop (2010) relates, ‘(a)s a teacher at a Boston school for deaf children in the 1870s, Alexander Graham Bell encouraged his young pupils to hold balloons in their hands when walking in the streets. Horse-drawn wagons, driven very fast but silent to the children so a threat to their safety, could be heard as vibration, transmitted up from cobblestones through the balloon and into the child’s hands.’ (Toop 2010, 47). If these simple means can prove very effective for making apparent the materiality of sound, our approach has tended toward the investigation of sound through the employment of audio recording, editing and playback technologies to disclose sound’s affective qualities. Since one of the things sound based art does best is to exploit the spatial characteristic of sound itself. With our work this takes the form of either multi-channel and multi-speaker arrays or headphone based work that explores binaural recording, that is to say microphones and post-production techniques that seek to replicate the spatial nature of human hearing. Multi-speaker arrays and headphone based audiowalks, as used in the works we produced at Falkland, encourages wandering through a space, rather than experiencing a work from a fixed viewpoint. To wander while listening to an audiowalk means engaging one’s haptic sense, for instance, in feeling the terrain underfoot, touching walls, steadying yourself on steep paths, brushing away branches and so on. The use of MP3 players with headphones, as used for *Falkland Audiowalk*, will additionally affect bodily orientation, given the centrality of the ear as an organ of both hearing and balance. As Michael Bull (2007) reminds us, these mobile audio technologies are a device for filtration of one stream of sensory stimuli, that emanating from the surrounding environment, in favour of another stream, seemingly more under the individual’s control. So any enhancement of sensory experience they offer is also met by a concomitant level of sensory deprivation. For all the flexibility and pleasure that can be afforded by MP3 technology it can also, ‘stand as both example and metaphor for a culture in which many of us increasingly close our ears to the multi-faceted world through which we daily move’ (Bull 2007, 4). With this in mind, the

Audiowalk was not intended to replace what was already there but, rather, to interact with the actual sonic environment and create overlaps between the recorded elements and the ambient environmental sounds. This is why walkers were instructed to activate the audio tracks only at specific locations during the walk, rather than playing it as a continuous accompaniment.

We were interested in investigating this aspect of bodily navigation and awareness of one's location in space with the use of artificial reverberation and, more specifically, by using the sound editing effect of 'convolution reverb'.<sup>iii</sup> Here, the quality of a sound is transformed with this additional reverberation and in turn this creates shifts of association and meaning. Temporal and geographic markers are deterritorialized when, for example, a voice can be heard to emanate from a space the speaker never even visited (or indeed was not yet built in their lifetime). The ability to evoke place through audio alone is strongly suggested in the *Falkland Audiowalk* by the use of the convolved reverb of spacious interiors of the House of Falkland. In this instance, the narrator's commentary on the design of the house apparently alters from what is clearly an exterior acoustic space to an interior one. The listener experiences this shift as they view the House from a group of trees some distance away. This approach highlights the positioning of the listener as eavesdropper, offering by means of sound, access to a building normally off-limits to the public. The acoustic of the spacious interiors of the House evokes grandeur, scale and wealth. The reverberation of the building – its aural architecture – also imparts social meaning (Blessner and Salter 2006).

A form of touch that is not direct, but, rather psychological and physical, is the involuntary reaction of the skin in situations of danger, unease, emotional intensity or surprise. This form of response is commonplace and most often described as 'spine-tingling' or as causing 'goose-bumps' or as 'making one jump'. The loud bang, the strange, sudden sound emanating from an unknown sources or from outside the line of vision, provoke physical responses that can be regarded as haptic. The ability of sound to induce feelings of concern or even fear is well known to us all. In media practice this is frequently encountered. The centrality of sound to the strategies of the horror film are

well documented and recent scientific investigation has shown that this film genre has a high incidence of ‘nonlinear’ sounds, that is to say, of sounds that distort as they exceed the normal range of musical instruments or animal vocalisation. This category of sound is particularly affective in this context, as it appears to relate closely to the vocalisation of fear and stress in animals (Blumstein, Davitian and Kaye 2010). In our work we do not use this dimension of sound to create fear or deep anxiety, but we do use binaural technology to record sounds whose spatial positioning causes involuntary response from the listener. With binaural techniques, the microphones are placed in the ear, so that the recordings and subsequent playback via headphones replicates the spatial position of the source relative to the head of the recorder /listener. It is an effect that can also be enhanced in post-production. Involuntary physical responses can be triggered, most readily, by positioning certain sounds in the mix so that they apparently originate from ‘behind’ the listener. We made use of this effect in our Audiowalk: a creaking door sound emanating from ‘behind’ the listener was particularly noted by the walkers –listeners even though, or perhaps, precisely because, at this point of the walk they were outdoors.

If we can think of sound as being touched by vibration, then when we are working with sound in a mediated form can we extend this thought to the idea of the technology itself being similarly ‘touched’? Vibrations are also sensed by the microphones, which, in a manner analogous to animal audition, also convert the vibrations into electrical signals. With some of these microphones, vibrations are not just through the air but also through liquid and solid materials. For a number of the works hydrophones (microphones that can record sound as transmitted through water) were employed.<sup>iv</sup> These were primarily used in *Cascading*, and to a lesser extent in *Arcadia*, to record the sound of the cascades and waterfalls on the estate from underwater. Hydrophones provide recordings of the sonic registers of these phenomena that are very different from those made by more conventional microphones.

### ***Temple of Decision***

Another possibilities for the hydrophones are to use them out of the water as contact microphones or geophones. By fixing them to different materials such as wood, stone or

the earth they will pick-up vibrations as transmitted through that materials. Recordings from contact microphones formed an essential texture to the audiotrack for the video *Temple of Decision*, some of the sounds for which were gathered from walking on, scratching and banging the stones that had fallen from the ruined temple. These sounds were then laid over close-up, still images of the stones, emphasising their texture and the changes wrought by weathering and colonisation by moss and lichens. In this instance, image and sounds call attention to the tactility of the stones.

*Temple of Decision* is an 8-minute single-channel piece, shot on HD, which seeks to survey the traces of a ruined eighteenth-century folly through various scientific and fictional strategies. Designed by Alexander Roos and built 1850 – 56, this building on Green Hill was intended as a focal point and promontory for viewing the Falkland Estate. Its current ruinous condition had prompted our curiosity about the imagined sounds of lived spaces, descriptions of which are outside of the range of oral history. The building's traces offered conjecture to its use and acoustic characteristics and this we investigate in the merging of visual and auditory elements. The slow rhythmic visual montage comprised vivid still and video images of the ruin's current state and grainy archive documentation showing the building when it was both 'whole' and at various stages in the process of ruination. This was welded together with an audio track that alternated 'naturalistic' ambience, a voice-over contained within a simulated acoustic and on-site recordings gathered using the aforementioned hydrophones. The 'straight' stereo recordings of the ambient sound in the ruin's vicinity (primarily heard as consisting of birdsong, light wind noise, distant traffic, sheep bleating and so on), acted as a familiar 'ground' for these more uncanny audio elements to puncture. For these, we applied virtual acoustics, a technique that has been used to model the acoustics of absent buildings.<sup>v</sup> While this 'reconstructive' tool has largely been employed for heritage projects - to understand better the acoustic design of ruined Cistercian churches for example - we sought to apply it to a structure within recent history. Researchers at the University of York (Dr Damian Murphy and Aglaia Foteinou) used ground measurements of the ruin, descriptions of the materials used and archive photographs to create a virtual model and then simulate the room's acoustic signature, effectively a reverberant empty room.



Our recorded voices subsequently had this virtual room acoustic digitally added and were now, in effect, embedded in the acoustic of the Temple, as it might have been before the subsequent demise of the Temple. The two discursive monologues ranged over personal experiences when encountering the ruin and ruminations on the nature of ruins and the previous uses of this enigmatic building:

*I last walked to the temple on a cold icy morning in January. Icicles hung under the banks along the Maspie Den and the Big Yad. Snow had fallen on the hills to the north but had left Falkland clear you could see the mountains blanketed on the horizon. On the field below the Temple I found a sheep's skull, picked clean by the crows. As animals decay the soft exterior rots to reveal the hard structure below. For a building the soft interiors go first – removed as the inhabitants leave or left to damp and decay, consumed by mould and animals. But both hard structures will gradually fall, weathered down to dust.*

To quote the architectural theorist Juhani Pallasmaa “A space is understood and appreciated through its echo as much as through its visual shape, but the acoustic precept usually remains as an unconscious background experience” (Pallasmaa 2005:50). *Temple of Decision* brings acoustic specificity to conscious attention however, as the voices become disconcertingly coloured by the introduction of the building's (virtual) reverberative signature. As the video progresses, the voices shift from apparently emanating from a ‘dry’ space of recording to the echoey ‘space’ of an apparently extant then ruinous building.

A visual analogue to the temporal nature of ruination was also suggested as the video foregrounded the *materiality* of the ruin. Locked-off shots emphasized natural forces – the action of the wind as a single thread of a spider's web is buffeted in the breeze, clouds scud across the sky and so on. The montage of imagery cut across significant tracts of time. For example, a tiny pencil sketch of the proposed roof segues to a black and white archive photograph of this completed portion.

The English painter and essayist Adrian Stokes writes, '(l)ike mothers of men, (the) buildings are good listeners. Long sounds, distinct or seemingly in bundles, appease the orifices of palaces that lean back gradually from canal or pavement. A long sound with its echo brings consummation to the stone.' (Stokes 1978:245). A reference to the prevailing mythology of stone as recorder welds together a fascination with the stuff of the ruin and a desire to consider its 'voice'. We gathered material that would be allusive to the piece's desire to hear the ruins 'speak'. Despite conducting extensive research in the National Archives and Royal Commission on the Ancient and Historical Monuments of Scotland in Edinburgh and relevant archival sources in London in the British Library and RIBA (Royal Institute of British Architects), we were unable to find the original architects plans. Again, we had to return to Green Hill to look for information on the ground:

*It's been said that stonework absorbs and holds energy, that a powerful emotional event may be captured within the stone and played back like a tape recording. The building listens and the ruin plays back*

Sound, it is argued, is particularly suited to investigating the relationship between the body and environmental or architectural space because 'where vision only ever gives us information about the surface of things, sound can inform us about otherwise invisible interiorities - the sturdiness of a wall, the state of the lungs [...]' (S. Conner 2003:1). The technique of simulating an acoustic facilitates the desire (or folly even) to open up a past interior. It is a compelling idea that while acknowledging how sound always vanishes into thin air, modeled acoustical spaces can digitally recreate 'spaces' to perpetually carry human presence.

### Cascading

The Falkland Estate was extensively developed in the nineteenth century with the landscaping of burns that skirt the House of Falkland and its gardens. We were drawn to the idea that these had deliberately been tuned to produce different notes as water descended down a series of cascades. Although there is no firm evidence for this, there are different workings apparent on the stonework of the cascades, which a stonemason recently suggested would have been made to alter the flow, and thus the sound. Certainly

these cascades were part of a pleasure walk that was designed to ‘delight’ the senses’ on a range of levels. They also make an interesting contrast to the natural, and much wilder cascades and falls in the Maspie Den, on the other side of the House. Indeed, in the nineteenth century, garden design was influenced by ideas then current in philosophy and responded to shifting aesthetic values on the visual and plastic arts. In addition, as the gardens were created under the auspices of wealthy individuals, their design was also a matter of public display of wealth and taste. In this context, taste was a way to articulate nuances of class and social status, as it continues to be.

To investigate more precisely the ostensible tuning of the cascades, we asked Dr Damian Murphy to conduct frequency analysis using our recordings of them. He noted that there seemed to be at least two dominant frequencies for each cascade. But while there was certainly a change in pitch, the relationship between frequencies in each example, and from cascade to cascade was not obvious. He concluded that there is no pattern as such and that maybe they were simply designed to sound ‘nice’ using approximation techniques. These resonances also vary over time – they are not always present, but they tend to be there over an average period. *Cascading* explored this dynamic process with the blending of recordings made with a stereo microphones, hydrophone, computer-generated tones and human voice. The voices – one male, two female, from the St Andrews Renaissance Group – attempted to embody the cascades by voicing the tones. At times, this effort to locate and sustain the tone was an audibly challenging one for the (male) singer since he was being asked to sing at a lower range than he was comfortable with. At these moments, the listener was no longer preoccupied or aware only of virtuosity, but of the living, breathing physicality of the singer’s body. This recalled Roland Barthes notion of how, ‘(t)he “grain” is the body in the voice as it sings’ (Barthes 1977, 188), when he discusses the grain as the physical residue of the singing voice that forms its unique character. Through this heightened sense of the singer’s corporeality, the listener is invited to attend more carefully to the sound (and the affect) of the cascades themselves, to hear these again as more powerful and complex than simply flows of ‘white noise’.

Since *Cascading* was installed in a room in the House of Falkland, which didn’t overlook the cascades directly, the listener would carry the memory of their sound(s) and then

combine these memories with the artwork. It playfully reminds us that this is most overtly a designed human landscape and we are embedded in it.

Chase a yard worse than last

*Chase a yard worse than last*, was live work that involved the playing of a number of games of 'Real' Tennis, on the 16<sup>th</sup> century real tennis court, one of the world's oldest, court house in the grounds of Falkland Palace. We wired the gallery section of the court (named the 'penthouse') with four contact microphones. As the game commenced, the clattering of the balls against the gallery's wooden roof was picked-up by the microphones and then processed using the 'convolved reverb' isolated by the measuring work of Dr. Damian Murphy. The sound of the physical contact of the balls with the architecture of the court was fed through the acoustic signature of the building and played back through four speakers in the penthouse, where the games were viewed behind thin netting.

The processed sonic material was generated in relation to the progress of the game and added to the sounds produced by the players (members of the Falkland Palace Royal Tennis Club) as they ran around, thwacked balls and called out the arcane scoring of this ancient game. The processed sound – loud but obviously intermittent – was a surprisingly subtle intervention. Viewers / listeners new to Falkland Palace were perhaps most immediately arrested by the sight of the games being played. Guardians of such historically important sites do not usually allow activity and play on these precious surfaces. But after spending further time in the space, allowing for the initial novelty of the game (and its verbal scoring) to subside, one would be alerted to the enhanced auditory 'liveness'. Yet, this enhanced sense of the 'live' is deceptive, since one is hearing both the present (the live game) and the past (the impulse response of the convolution reverb, gathered months previously).

The places and spaces we sought to explore at Falkland offered rich opportunities to consider the interplay of the senses in historically layered spaces. The consideration of our work from the perspective of touch has been a productive exercise. This mainly retrospective enquiry has brought to the surface how touch formed a complementary

element to many of the approaches and techniques used in different parts of the project. If particular senses may be regarded as central to a work's form of address, we can regard all the senses as actively, if subtly, in play. Touch also provides a clearer analogy between human hearing and the operation of audio technology, through the touch of sound wave and vibration on microphone transducers. And we should not forget the touch of the headphones and the ticklish vibration of sound as it is pumped directly into the ear.

If the main academic consideration of sound and touch, at least in the cultural sphere, has been in relation to questions of amplitude and low frequency, then our practice at Falkland prompts other considerations and opens further investigation of this question in relation to audio-visual practice. The potential use of low volume / higher frequency sounds to provoke physical responses, through either specific content or spatial placement, is also a productive area which can be developed to compliment the work on the cultural applications of high volume / low frequency sound. With our work in Falkland our intention was not to confront or abrade the listener sonically, but rather to unravel a particular site using sound as our primary tool. Probing into unlikely or hidden acoustic terrains, mediating the landscape in order to hear better what is already there, 'un-touched'.

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<sup>i</sup> To set briefly a context for the project: the Falkland estate was originally established as a Royal Hunting Park in 1458 and the Falkland Palace was the country residence and hunting lodge of the Stuart kings from the early sixteenth to the seventeenth centuries. After the Union of the Crowns Falkland Estate dwindled until Professor John Bruce purchased and assembled the estate lands between 1821-26 and began a series of improvements to the Palace, the farms and the grounds. His niece, Margaret, inherited the Estate and commissioned William Burn to build the Tudor-style House of Falkland. Extensive developments to enhance the grounds were also made and a number of temples and monuments were constructed during this period. John Patrick Crichton Stuart, the 3rd Marquess of Bute, bought the Estate and the Keepership of the Palace in 1887 and set about the extensive restoration of the Palace. Today, the Falkland Centre for Stewardship looks after some 120 acres of mixed woodland, moorland and agricultural land. Amongst its other responsibilities, the Centre is interested in exploring and adding new layers of art

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to the historical designed and ‘sublime’ landscape, which is designated as an ‘outstanding significance as a work of art’.

<sup>ii</sup> Briefly, convolution reverb works by recording an impulse response effected in a real space (either by producing a loud bang, or, for a more accurate reading, by generating a sine-wave sweep of the space) and ‘convolving’ it with a new sound. In essence, the new sound is combined with the original recording of the space and has the properties of that original imposed upon it. Convolved reverb can be used to archive the acoustic signature of a space and subsequently be made to ‘carry’ sounds that have been recorded elsewhere.

<sup>iii</sup> As artists, we have a keen interest and experience in employing an array of familiar and unusual field recording techniques (such as hydrophones, binaural microphones, ultrasonic detectors and so on) as a means to go beyond the audible and immediately recognizable ‘signature’ of a place.

<sup>iv</sup> See <http://www-users.york.ac.uk/~dtm3/virtualacoustics.html> for more background