

The (Irish) Linen Memorial Soundscape: a *Gathering of Names*

Lycia Trouton and Stephen Perrett

Introduction

The intention with the installation is to give visitors to The (Irish¹) Linen Memorial - a dedication to those killed as a result of The Troubles (hereafter referred to as The Memorial) - an experience designed to exploit a psychological phenomenon known as the 'cocktail party' effect, achieved through the delivery of almost 4000 names of the dead (hereafter referred to as The Names List)² within a relatively short timeframe, approximately twenty minutes. Lycia Trouton's memorial³ is that of an intervention of a 'modest witness' (Harraway 1997: 45) and is created in the medium of an historically iconic Northern Irish and globally traded, product, namely linen. This paper is about the 2009 digitization of The Memorial, with a new Soundscape, based solely on a reading of The Names List of those killed in the conflict. The Memorial is

¹ Irish in this case refers to the material culture of linen.

² The printed and embroidered Names List closely follows the chronological listing of 'victims' (all those killed directly due to the sectarian conflict from 1966 – 2000 with subsequent re-publications to present day) in *Lost Lives: the Stories of the Men, Women and Children who died as the Result of the Northern Ireland Troubles* by Brian Feeney, Seamus Kelters, David McKittrick, Chris Thornton and David McVea, 2000, albeit the names are in the public domain; many have been indexed by Malcolm Sutton, published 1994. My printed and embroidered handkerchiefs have been checked and re-checked for any and all errors by a team of three persons (with one discrepancy in the Names List corrected from a memorial visitor, a relative of a person killed corrected, June 2008).

I had an early 'nod' of approval to my creative proposal in March 2001 by email from Brian Feeney on behalf of the above authors. Yet last year, with great regret, I took on-board a July 2008 correspondence from Brian Feeney with a request that the authors of *Lost Lives* wished to distance themselves from The Memorial. Therefore, after July 2008, I reference simply a 'Names List', although their book is freely available to visitors of The Memorial. Many persons have appreciated the interactivity between the two 'texts': 1) a public art monument (or counter-monument, depending upon one's viewpoint) made in the material culture for which the colonization of Northern Ireland became famous throughout the world especially during since the industrial revolution and beyond (linen) – and 2) the other: a monumental tome of research and public service journalism, a text-book.

Trouton's visual/material culture doctorate studied the scholarly links between post-colonial literature (texts) and 'the art of textiles,' especially in regards to politicised arts criticism about the body and 'encoded forms of communication' in installation art since the mid-1990s.

³ In recent years, there has been considerable debate about the possibility of, and appropriateness of -- in concept, form and possibility of neutral site -- about joint public mourning in Northern Ireland.

Internationally, commemoration and monumentation has been a highly controversial subject in the art/architecture field and in cultural history, such as 'memory studies' in psychology (trauma, Post-Traumatic Stress studies) and in other fields. Last year, the *Healing Through Remembering* (HTR) research organization in Belfast stepped up its formal processes around the topic and began another sub-group called *Network of Commemoration*. [http://healingthroughremembering.info/index.php/network_of_commemoration/] I gave a presentation to Cate Turner in February 2007 and senior HtR member, Alastair Kilgore, about The Memorial, and subsequently to the *Living Museum* sub-group in mid-June 2008. I have filed reports on the viewing of the memorial to the *Day of Private Reflection* sub-group in 2007, 8 and 9. In 2008, I was invited to apply as a Research Consultant to the HtR; I am following up that application presently.

finally being used, as has been my intention since its inception almost a decade ago, to illustrate both a) serious public talking points which reference current political issues in post-conflict Northern Ireland, and b) the promotion of healing from trauma. For example, this past month, Belfast's Patrick Corrigan, Programme Director of Amnesty International, blogger and micro-blogger, illustrated his article on 'Truth versus Justice'⁴ with a photograph of The Memorial and a digital version of The Memorial⁵ was unveiled in The Canada Room, Queens University, Belfast, for the third 'annual'⁶ Day of (Private) Reflection, June 21st to over sixty visitors, with the opening speech by journalist-broadcaster, Rowan Hand and Martin Dunphy, a grass-roots activist, and former member of The Peace People, from the mid-1970s.

This paper describes a new immersive, interactive sculptural installation as experienced with The Soundscape. This eight-channel soundscape uses a completely randomized Names List and is based upon contemporary auditory spatial localization research. This installation version helps fulfil the experience of visitors who come to the memorial in search of a loved one's name. The paper is in two parts: a description of the material culture of The Memorial and The Soundscape, and both works as based on art-sound concepts underpinning contemporary immersive-interactive sculptural installation.

⁴ Corrigan stated, this past June 5th, he has always advocated that confronting the past is part of the move towards long-term stability. He also hopes that Amnesty International's body of comparative global research on immunity and impunity will be considered by public policy makers in attempting reconciliation, and investigating past injustices so as not to leave a legacy of bitterness amidst persistent controversy. Corrigan was, in part, advertising a Belfast-based conference on amnesties and truth recovery in Northern Ireland and other post-conflict transition countries on in late June 2009.

⁵ Simply by converting images of the handkerchiefs into a Powerpoint slide show. This is appropriate for some settings, due to convenience, insurance issues and/or cost/length of time to install and host The Memorial. The Handkerchief plaque slides have begun to be published on the web, as of June 22nd 2009 (www.linenmemorial.org). An e-guestbook has been available on the website, since June 2006. In April 2009, I implemented a Facebook 'fan' page for The Memorial for more immediate updates for 'followers'.

⁶ Each year, since its inception, The Private Day of Reflection is carefully monitored and it is still under debate whether or not it will become an annual event. Please see www.healingthroughremembering.info

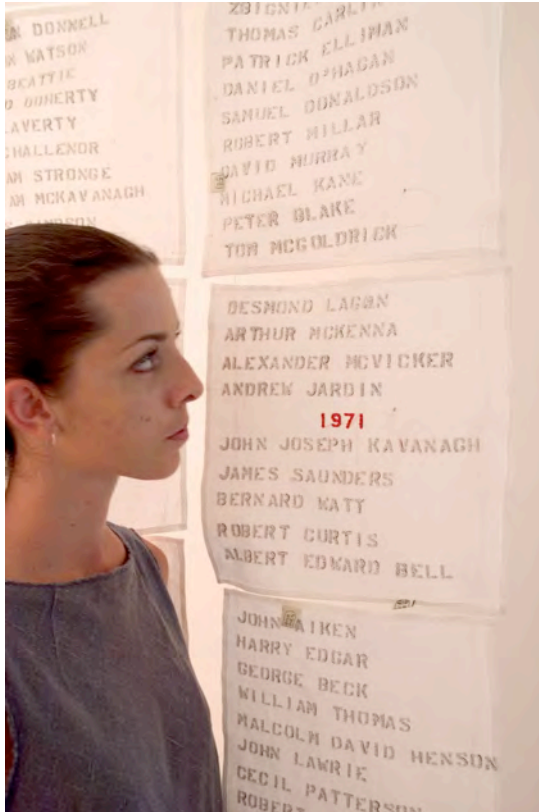


Figure 1. Wall of embroidered Irish linen handkerchiefs, 2005 memorial exhibition. Artist's model: Jo Ann O'Dell. Photo Credit: Sean Maguire, Creative Image Photography.

Description of the memorial in linen, 2001

The Memorial is a site-conscious⁷ sculpture consisting of almost 400 white, diaphanous Irish linen handkerchiefs. It lists the 'cost of The Troubles' in terms of human life: names from the almost 4000 deaths from 1966-2008. As such, the artwork is an 'alternative cultural history' of The Troubles, symbolically re-patterning hopes for more sustainable cross-community relations within Northern Ireland, as well as recognising community ties for the Irish diaspora, who have their own understandings, thoughts and feelings on The Troubles era and hopes for peace. There are ten names per handkerchief; these were first printed and then, in subsequent years, sewn over by hand, in simple chain stitch. The embroidery has been in progress since 2004 and has required the services of almost 40 crafts persons and a project coordinator. The Memorial performs an encoded⁸ ritual of remembrance as a mobile monument/counter-monument. The Memorial was conceived as a non-permanently sited sculpture because there was/is no neutral site

⁷ On this subject see: 1) *New Genre Public Art* by Suzanne Lacy, 2) *The Lure of the Local: Sense of Place in a Multicentered Society* by Lucy Lippard, 3) *Dialogues in Public Art* by Tom Finkelpearl and 4) *One Place after Another: Site-Specific Art and Locational Identity* by Miwon Kwon.

⁸ See Linda Pershing's research on needlework as encoded communication, reference at end of paper.

in Northern Ireland for joint public mourning with a traditional sculpture. Small-scale handkerchief-plaques can be rolled up, folded, packed away and/or re-configured. Since 2001, the memorial has been mounted in many locations, from art gallery settings to Centres for Peace, and in Protestant and Catholic churches in four countries. The different configurations of hanging handkerchiefs can be quite dramatic. The first exhibition of the memorial included a 'coffin' configuration in compressed peat moss blocks (which mirrored the dimensions of the linen handkerchiefs and referenced Irish bog oak) as a gesture to my practice as an earth artist.



Figure 2. Sample handkerchief-memorial-plaque. This particular handkerchief, chosen to illustrate this article, was taken at random by the artist, Lycia Trouton. Materials: Irish Linen Handkerchief, approximately 11 inches square; printed in 2001 and embroidered from 2004. Photo credit and copyright: Lycia Trouton.



Figure 3. Horizontal (quilt-like) memorial exhibition of printed handkerchiefs, 2005. Photo Credit: Sean Maguire, Creative Image Photography.

Soundscape, 2009

The twenty-minute Soundscape is designed to create the acoustic conditions necessary for a phenomenon called the 'cocktail party effect' to occur. This involves the delivery of approximately 4000 digitally-recorded names through eight spatially separate loudspeakers to create a general babble, a confused mixture of eight voices simultaneously reading The Names List of those killed.

We created this work by hypothesizing that a visitor to The Memorial, who knows a person killed in The Troubles, will be able to easily distinguish the deceased person's name when it is delivered even though it will be heard within a babble of other voices. Psycho-acoustic research has shown that several factors are involved in allowing listeners to hear a voice over background. The design of the installation takes advantage of contemporary understanding of human auditory localization as it relates to the 'cocktail party' phenomenon and hearing speech over background noise.

The 'cocktail party effect'

In social gatherings of many people, numerous conversations can, and often do, occur simultaneously. Generally, normally hearing individuals may tune in to one particular conversation and then, at will, tune into another and be able to hear what the conversation is about. A person listening in like this can typically follow only one conversation at a time. Cherry suggested that spatial separation and auditory localization was one of several key factors involved in the 'selective attention' that could play a role in how the 'cocktail party' effect is achieved (1953: 976). The Soundscape will be presented via eight spatially separate sound sources so as to provide the optimal conditions for human auditory localization.

The enthralling extent of the cocktail party effect goes beyond being able to tune in to different conversations, as a typical example commonly appearing in first year psychology textbooks describes below:

... you are talking to someone in a crowded room, ignoring the other voices and general noise, when the sound of your own name in another conversation catches your attention. Clearly, you would not have detected your name in the other conversation if you had not, in some sense, been monitoring that conversation; you were not consciously aware of the other conversation until a special signal

drew your attention to it. (Atkinson, R.L., Atkinson, R.C., Smith, E.E. and Hilgard 1987: 111).

The example above demonstrates that intelligible speech from more than one talking person is processed subconsciously and can become consciously available if its meaning is striking to the listening individual.

The Soundscape will comprise playback of digital recordings of eight people reading the various names concurrently. If a person listening has knowledge of a person's name featured in the readings, the listener should be able to consciously hear and become aware of the vocalized name even if the listener was not paying conscious attention to the vocal stream delivering the particular name.

Spatial separation and hearing speech over background noises

Spatial hearing involves the use of various cues available in the acoustic energy of sounds like the human voice. Left-right information is derived from inter-aural time differences and inter-aural loudness differences. Front-back and elevation discrimination involves use spectral changes to the sound as it passes the outer ear and through changes in inter-aural differences as a person engages in head movements. For more information on the science of spatial hearing, please see:

<http://www.auditorylocalization.thegong.com.au/>

Various experiments have been conducted to look into the ability normally hearing people have in hearing speech over background noise. As noted earlier, Cherry (1953) speculated that spatial information was utilized for this purpose. Yost, Dye and Sheft (1996) found that when there was a significantly larger benefit from spatial separation when three competing noises were provided rather than two, suggesting that when the task of hearing speech becomes more challenging, spatial cues become more important.

Noble and Perrett (2002) found that background noise, comprised of normal human speech, benefits from spatially separating the signal from the background noise and becomes greater when the background noise was non-speech. Their study suggested that the more confusing the background noise was, the more important spatial cues become in being able to understand speech, when there is background noise.

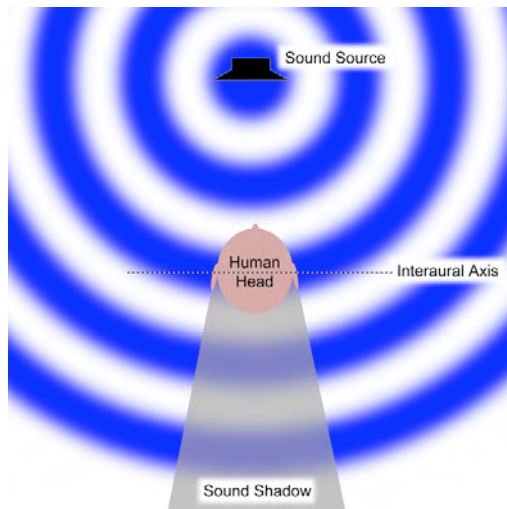


Figure 4. The sound source is directly in front of the listener, therefore the distance from the sound source is the same to the left and right ears and therefore sound waves arrive at both ears at the same time. Also, neither ear lies within the sound shadow produced by the head.

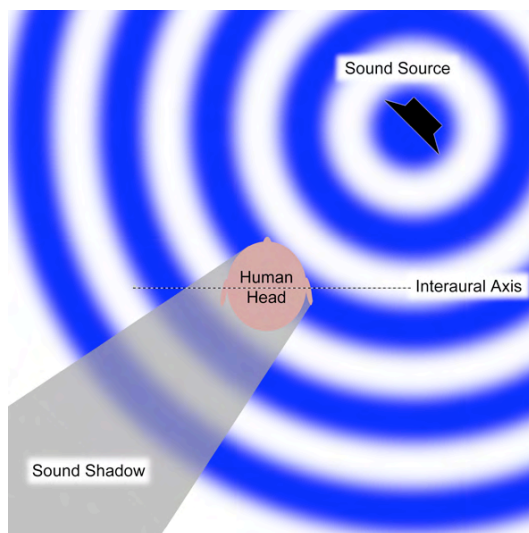


Figure 5. The sound source is in front and to the right of the listener, so the distance from the sound source to the left ear is greater than to the right ear, and so the sound waves arrive at the right ear earlier than at the left. The direction of the sound wave causes the left ear to lie within a sound shadow while the right ear is completely clear of the sound shadow.

Spatial hearing

The recordings

Eight lists of approximately 500 names were 1) completely randomised with Microsoft Access (by giving each name a random number and then sorting The Names List in

order of the random number) and then 2) produced with downloaded shareware, *Goldwave* sound editor. We have already uploaded a pilot to test-progress version to YouTube, with a slide show of imagery from the documentation of the hanging of The Memorial at Corrymeela's Centre for Peace and Reconciliation on the first and second Day of Private Reflection, 2007 and 2008.

The randomised Names List of those killed in The Troubles (1966-2008) was read by eight different invited Irish/Northern Irish readers. (Four male and four females volunteered for the task). Each read approximately one list of the almost 500 names; they were recorded digitally with an absence of background noise. Where errors in reading occurred, names were re-recorded. With digital sound software, names mispronounced were replaced with corrected pronunciations. Readers were asked to read the names at a respectful pace and tone. There was substantial variation in the speed with some readers completing the task in about fifteen minutes and one took as long as twenty-nine minutes. Through digital editing it was possible to adjust all readings to approximately twenty minutes by varying the length of silence between each name.

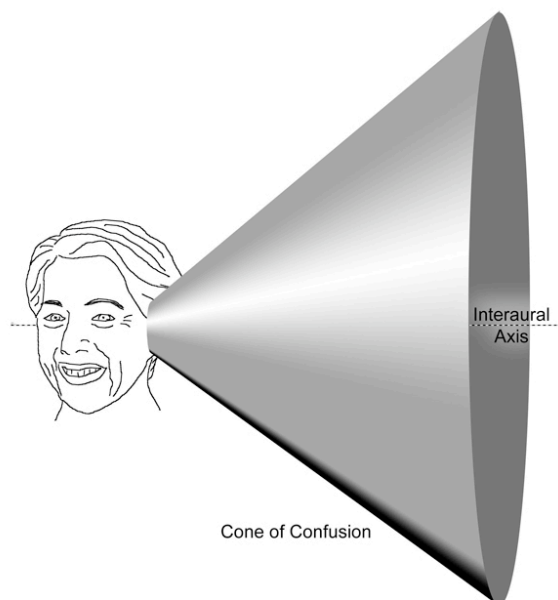


Figure 6. An area of auditory space sharing the same inter-aural differences, forms a conical shape. Relying on simple Inter-aural Differences of Time and of Loudness will produce what is termed as a 'cone of confusion'.

Presentation

Main exhibit

Four mini-stereo sound systems with detachable loudspeakers will be used to present the eight readings. The loudspeakers will be arranged around the inside perimeter of the exhibit room, at approximately equal distances from each other.

Four, two-track digital sound files will be produced - giving eight tracks in total. The eight resultant tracks will contain the digitally recorded data obtained for each of the readers (one reader per track). Each of the sound files will be transferred to digital compact disks (one sound file per disk).

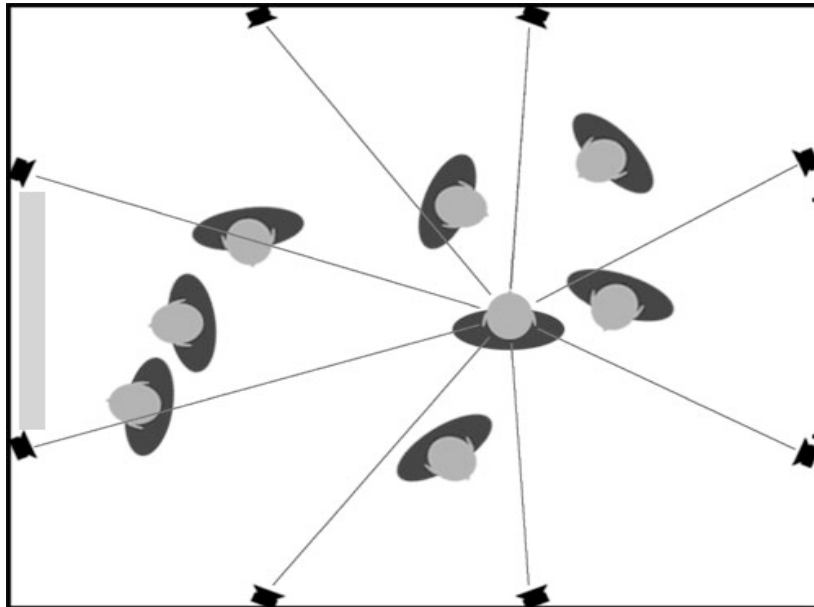


Figure 7. Proposed installation, a sample of which will be shown at the ISEA conference. The image shows The Soundscape as an array of eight loudspeakers presenting each listener with auditory signal from eight, distinct directions. The database projection screen (to the left in image above) would contain a PowerPoint slideshow of the almost 400 images of Handkerchief-Memorial-Plaques from The (Irish) Linnen Memorial, a memorial conceived in late 1999 and implemented with Canada Council of the Arts funding in September 2001.

Pilot test on YouTube

Although it is not possible to spatially separate eight signals and present them via a personal computer through the medium of a YouTube video, the sound signal can be digital engineered to simulate eight spatially separate signals for listening over headphones. This can be achieved by introducing very short time delays between

signals delivered to the right and left ears. These time delays simulate the inter-aural time differences that would occur at the ears with signals delivered by spatially separate sound sources. Thus, a virtual impression of spatially separate voices may be gained using just two tracks and listening to them via headphones. Note: the full spatial experience does not occur and all sounds are experienced as being inside or very near to the listener's head. However, the voices still do sound as though they are spatially separate. Please see: http://www.youtube.com/watch?v=tyPTII_hZOk

Conclusion

To conclude, this critically-informed Soundscape of The total Names List reading produces an immersive experience of The Memorial, whether it is a projected PowerPoint display or the actual embroidered, linen handkerchiefs in a site-conscious sculpture. In this way, visitors' personal memories, ultimately, complete The Memorial⁹. Memorial visitors who experience The Soundscape may shift their grief and trauma as well as, perhaps, their understanding of relationships between persons-of-difference, and/or changing concepts of the community of the living and narratives of 'the community of the dead'¹⁰. Furthermore, such an experience may shape perceptions/experiences of emerging narratives of the past conflict, in the post-conflict (but still-conflicted) Northern Ireland. Thus, The Memorial and Soundscape, 2009, invite reflection upon plural public(s) and private ways of engaging citizenship, and, welcomes a 'parity of esteem' for difference¹¹.

Proposed Feedback Questionnaire for evidence-based outcomes

A short questionnaire will be given to participants of The Memorial to gauge their feelings as regards to trauma and other emotions from their experiences of The Soundscape at the ISEA (as well as other locations), thereby providing further research outcomes.

⁹ Documentation in the e-guestbook of 115 entries since 20th June 2006 to June 22, 2009, see <http://www.linenmemorial.org/memorial-book.htm>.

¹⁰ See Benedict Anderson on nation and imagined community, 1983, and Allen Feldman on Formations of Violence in Northern Ireland, 1991.

¹¹ See 'inter-communal' conflict and Tom Hennessey and Robin Wilson, 1997; also http://en.wikipedia.org/wiki/Parity_of_esteem (Accessed July 8 2009).

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