Sounding Public Space, Sound Artists in the Public Domain

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ABSTRACT

The right to quiet has been defined as a public commons (Franklin, 1993). Public space in Australia is becoming increasingly sound designed. This presentation investigates the variety of approaches by sound artists who have installed public space drawing on the three year ARC Australian Sound Design Project's research, website, http://www.sounddesign.unimelb.edu.au and public outreach Hearing Place. Current trends and practices will be compared and contrasted and conclusions drawn about the implications for Australia's soundscape in the future.

1. INTRODUCTION

Every place is an acoustic space. To be fully cognizant we need to be aware of the acoustic features of every place we inhabit, of the planned or unplanned sounds wherever we are, whether outdoor or indoor, public or private. The sum total of the relationship of sound, noise and quiet, whether designed or not forms the soundscape or acoustic environment. While research and discourse surrounding noise and the soundscape has been well under way for thirty years, (Schafer, Truax, Attali, Franklin) the place that designed sound has in the soundscape is only beginning to receive scholarly attention. The purpose of this paper is to articulate some of the ways in which Australian sound practitioners are already designing sound in the public domain so that current trends and practices can be examined, compared and contrasted. This knowledge is essential to the future of Australia's soundscape, as the interfaces between design and acoustic space are already underway and are fully able to be experienced. Sound artists and acoustic designers are forming a contemporary layer to Australia's acoustic palimpsest which reaches back to the ancient sung land practices of indigenous peoples. (Belfrage, Bandt). They are already redefining public acoustic space and in so doing, laying the foundation for new principles, practices and sonic experiences of the future.

2. AUSTRALIAN SOUNDING ARTWORKS IN PUBLIC SPACE: THE WORKS

Sounding artworks and sound designs come in many forms, from permanent to temporary or ephemeral, and indoor outdoor or virtual. The overriding determining factors are the choice of the site and the nature of the engagement between the artist and the hosting body whether rooted in physical or virtual space. Within the parameters of the artwork brief,

many important decisions have to be made which are common to all sounding artworks.

These decisions relate to:

1. The type and composition of the sound it contains (pitch/time, sonority/scale relationships).
2. How the sound itself is installed into the acoustic space and context, its spatial dispersion, the durational programming of events.
3. The degree of change from one day to another. This area has become much more complex over the recent years with complex system development softwares becoming readily available.
4. The visual requirements of the environment, which can be as varied as complex sounding objects, kinetic machines, sculptural and multimedia installations, or they may be invisible complex spatial music installations where the array of speakers through the space is the only perceivable physical component. These may or may not be visible to the viewer.
5. The role of the auditor/s, fixed or moving, free to determine direction, spatial position and time-lengths within the works.
6. The degree of interactivity presented to the auditor, giving power to change the content or form of the sounding artwork itself. This raises the question who is the sound for and who is allowed to change and interact with it.

Individual works have provided answered to the questions proposed as the design process is tailored to the specific site and events planned.

2.1. Contexts and Examples: sites and solutions

All the examples in this paper are situated in the pubic domain, being defined as a place to which the public have access. Every space is political. The overriding determinant of sound art is the nature of the relationship between the site and the artist, and their knowledge and understanding of the space and intention. The choice of site defines major considerations, indoor outdoor, permanent temporary, the acoustic surfaces presented and the existing soundscape. The nature of the sound design invitation, whether event, exhibition, tender or commission, frames durational possibilities including the hours of opening as well as influencing the type of public which may be attracted. To some extent every sound work is site specific to the

environment where it is located. But some artists have built these interfaces into their work more than others.

In 2001, sound artist Roger Alsop in collaboration with a team of performance artists and musicians interrogated the idea of site as cultural paradigm by building two Rice Paddies, one in central urban Melbourne, outside the Melbourne Town Hall, the other in Footscray, a western suburb with a large Asian community. Other artists included musicians Madeline Flynn, Tim Humphrey and performance artists Simon Woodward, Yumi Umiumare, Tony Yap and Jackie Smith. The idea came about from a phone call from instigators Jason Cross & Victoria Raywood, writer directors who asked Roger Alsop if he would be interested in putting a rice paddy in an urban place. "This was extremely interesting as there were so many juxtapositions and contradictions in the idea,"(Alsop). The different demographics were built into the project as were the sounds of the physical environment, trams, buskers, audience members, and the effect of the buildings on the sounds used. Introduced sounds included recordings from parliament, shortly after the Tampa crisis, including Bob Brown's famous speech and the SBS World News played randomly, so that at no time was one language given prominence. These were played through a large megaphone to give the feeling of the indoctrinating voice. Incessant bird sounds were punctuated with musicians improvising with a rain tank, an Australian symbol which morphed into a Taiko drum at times. The decibel levels of this new layer of site exploration needed careful consideration. Alsop states: "the intention was to impose the show on the place, despite the fact that both venues are commercial trading centres….At the same time it was considered that the performance should become a part of the place. Therefore amplitude levels were kept to about the same, or a bit louder than, the loudest environmental sounds. In the City Square this was the sound of trams measured at about three meters, about the same distance as a pedestrian on the kerb from a passing tram. In the Footscray Mall this was the sound of a passing truck at about 5 metres. When setting the levels for the amplification system a distance of about 1.5 metres from the speakers was used. This amplitude level was adjusted to suit the changes in ambient noise level and if it was significantly impacting on the vendors in the area." See video link, *Rice Paddies* Courtesy of Roger Alsop: www.sounddesign.unimelb.edu.au/web/alsop/rpHi.mov

Figure 1. *Roger Alsop and collaborators, "Rice Paddies", 2001, Photo courtesy of the artists*

2.2. Indoor temporary works

A large proportion of sounding art works are indoor works occurring in galleries for three to six weeks. Les Gilbert and Gillian Chaplin's *Love is a wonderful thing* was commissioned for the Hearing Place Exhibition, 2003 at the Yarra Sculpture Gallery, City of Yarra. A mixed media collaborative work, it 'consisted of a matrix of sounding box-like assemblages, projection screens, video and photographs. Individual channels of sound were triggered on the listener's approach to each box through the listening eye' (Chaplin/Gilbert artistic statement.) Each box also contained a concealed loudspeaker and a motion sensor, making public, a collection of private thoughts and memories. The sound common to all the boxes was the female voice of Gillian singing the song *Love is a wonderful thing* with subtle variations. The pathways of the viewer /listeners caused these voices to intersect in a gentle spatial polyphony, modulated with other sounds from intriguing worldwide location video recordings projected on screens and the back of the boxes (www.sounddesign.unimelb.edu.au/web/gilbert/loveis.mp3). The audio and visual relationships were co-ordinated through computer-controlled data, allowing compositional features to be unwittingly composed by the pathways of the viewer-listener through the exhibition space. "The piece explored the relationships between a very private and intimate glimpse of interior vulnerability and the vastness of the urban landscape, both physical and environmental." Chaplin/Gilbert. http://www.sounddesign.unimelb.edu.au/web/biogs/P000411 b.htm

Figure 2. *Gillian Chaplin and Les Gilbert "Love is a Wonderful Thing", 2003. Yarra Sculpture Gallery for the Hearing Place Exhibition of Sound Art. Photo: Courtesy of the Artists*

This was one of two of the *Hearing Place* exhibitions and audiotheque of sound art and mixed media curated by *the Australian Sound Design Project* to coincide with the

international conference of the *World Forum of Acoustic Ecology*. The diversity of works exhibited can be seen and heard at www.sounddesign.unimelb.edu.au/site/news.htm.

The audiotheque at the VCA gallery brought together some 59 artists from 13 countries with sound works spanning classic electro-acoustic and soundscape composition to pure unedited field recordings. Many of the works utilised 'binaural' recording techniques which when listened to with headphones, immerse the listener in a 3-dimensional sound space. Much thought was given to the spatial and temporal design of the audiotheque so that it would be a pleasant listening experience but be content rich. Over seven hours of audio were presented at a group listening station with seating positioned under 8 sets of suspended headphones. This offered a chance for 8 people to share a common listening sequence at the same time.

Figure 3. *The Australian Sound Design Project, Hearing Place, International Audiotheque, March 2003, Photo: Iain Mott*

There was also an individual station that allowed the listener to select each track on demand. The Audiotheque was accompanied by projected texts on each work and biographies of each artist. This curatorial decision allowed both group and individual use of the 7 hour long sequence, with many people returning several times, while others did quick searches to access their preferred listening choice. Like many forms of sound art, the sound itself was the main focus, with an audio CD *Hearing Place* being published by Move Records of the best 10 international works responding to place- a lasting record of the event. Composers include Samuel Pellman (USA), Christopher DeLaurenti (USA), Jon Drummond (Australia), Aaron Ximm (USA), Greg Hooper (Australia), Viv Corringham (United Kingdom), Pierre Thoma (Switzerland), Gabriele Proy (Austria), and Michelle

Nagai (USA). The *Hearing Place* CD is available through Move Records at: www.move.com.au/disc.cfm/3275.

3. DURATIONAL ASPECTS OF SOUND DESIGN CONSIDERED

Curating group shows of sound installations is challenging. Sound spills and acoustic spaces need to be shared. Isolating sound walls, grouping compatible works, designing the group spaces with the artists from the outset, using headphones, timers, interactive devices and creative scheduling are ways of avoiding common pitfalls. The gallery exhibition of sound art can be limiting due to the overriding politic of the gallery opening hours and the length of the show in days or weeks. When exhibitions are permanent, such as in museum situations, other questions come into play such as how long is the durational design, and how much variety is there? Can the exhibition change or morph, is there interactivity? Or can the exhibition be responsive to the number and type of people present? Permanent exhibitions in the outdoors offer different environmental concerns such as changing light and temperature, exposure to physical contact, changing weather conditions and unpredictable people flow. The durational aspect of sound art may be intended to be short, as in the case of the radio broadcast, but it is interesting to see that most radio stations are documenting their programs on the Internet for greater temporal and geographic dissemination. The Internet is a place where long and short term works can co-exist, but the quality of the sound heard and its dispersion have rarely been fully optimised. While the spatial features of sound art are often discussed, as they are so easily perceivable, the temporal design is often much less obvious, as it demands substantial listening time and effort for it to be understood. Few people are trained to understand the depth of the more prolonged artworks or willing to dedicate enough time to understand the full potential of the works.

3.1. Permanent works

Permanent works may offer the listener an extended opportunity to listen to the complexity of a work, but this depends of the form and function of the sound design. The opportunity may not be taken up if the viewer only experiences the work once for a short time, for example in the museum situation where works remain, but the visitor may move through quite fleetingly. In some cases, it may not be obvious that it is an introduced artwork. The experience of the auditory phenomenon may be a surprising feature, such as in Peter Mumme's design for the Cairns airport, a gentle soundscape experienced by a captive group of people assembled for another purpose, travelling to and from Cairns. His soundscape is spatially and temporally designed to track the movement of people arriving and alighting at the airport as they move through customs and collect their baggage. The speaker array on the following diagram shows the relationship of sounding points in relation to the user pathway. The entire compositional material is computer controlled to be synchronised with the airport flight schedule.
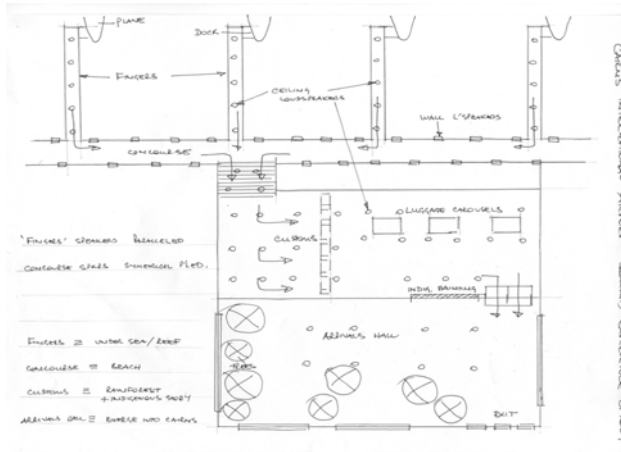
Figure 4. *Peter Mumme, "Cairns International Airport Sound Experience", floor plan, 1996, courtesy of the artist*

The speakers are flush to the wall and painted as part of the overall mural so they are integrated into the environment just as the sounds used in the soundscape are derived from the local environment- bird, water, and forest sounds which signify the identity of the place and things yet to come. For an audio example see:
www.sounddesign.unimelb.edu.au/web/mumme/cairns2.mp3
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Figure 5. *Peter Mumme, "Cairns International Airport Sound Experience", speaker picture, courtesy of the artist*

3.2. Permanent outdoor sound art

Permanent outdoor sound art is one of the most difficult to execute. Nigel Helyer has a long track record in this field. His award winning work *Meta Diva* is an environmentally sensitive sound sculpture, designed for installation at the Werribee Park wetlands site. It comprises thirty individual units, each with a solar powered digital audio 'voice' which emulates an element of the natural soundscape.

"Each unit contains a miniature digital audio chip, coupled to a digital timer, set individually so that each of the thirty units has a unique time signature. The audio chips contain short samples of natural history sounds, bird song, and insect song and frog voices. The combination of multiple sound sources, in conjunction with individual time signatures and the fluctuations of the solar power supply give the soundscape an un-cannily natural presence. Technically, this is a type of emergent behaviour in which, although we might recognise the repetition of individual sounds, the overall soundscape is in fact an infinite mix; somewhat akin to the always familiar, but never repeating sounds of a creek. In reality, the soundscape blends so seamlessly with the natural environment it is quite difficult to distinguish the artificial from the natural soundscape. The physical structure of the sculpture employs the metaphor of plant biology and the thirty units are grouped as if to form a bed of lotus plants."
See Helyer:
www.sounddesign.unimelb.edu.au/web/biogs/P000295b.htm

Figure 6. Nigel Helyer, "MetaDiva", Werribee Park, 2002 Permanent outdoor sculpture and winner of the Helen Lempriere prize. Photo courtesy of the artist.

The introduction of the cheap imported chirp sound of the chips is comic when heard in the setting of the rich Australian natural environment yet the rhythmic fluctuations caused by the tiny solar panels make the work engaging. The physical elements of the design are elegant and the durable casing of the sound components requiring no power or maintenance is clever and practical.

4. TECHNOLOGY, SYSTEMS DEVELOPMENT, INTERACTIVITY

Most sound installations and sounding artworks are reliant on a barrage of technical apparatus and the history of the genre maintains this close relationship between art and technology since Grainger's free music experiments, which started before the nineteen fifties. Australian sound art has embraced the design of complex sound systems, spatial music systems and interactive immersive environments and has been a major player in the field since the CSIRAC, the Fairlight, 3 DIS, Schiemer's Audio tool box and Bencina's Audio Mulch

among others. The 3 DIS, (Three Dimensional Interactive Space), developed by Simon Veitch of Perceptive Systems in the nineteen eighties, enabled an entire space to become a sounding and playable environment through the use of video surveillance cameras triggering MIDI information to 99 sub areas of a given space. The dancers Shona Innes, Jane Refshauge and Sylvia Staehli created several innovative performances and installations with composers Warren Burt and Ros Bandt. Five works were designed and presented at St Martin's Theatre in *Hear the dance and see the music*, March 1989. This set a precedent for many other art and technology residencies at major laboratories like the CSIRO and industry partners such as LAKE.

Some artists have been able to develop their own systems, custom- made for their artistic visions. Burt's *Aardvark* and Rainer Linz's systems for Stelarc and Jon Rose's interactive sound are notable examples. The works of Garth Paine, *Map 1&2* and *Gestation*, are extraordinary feats of contrapuntal spatial sound offering the audience the opportunity to sonically play the space they inhabit and make it their own, through whole body conducting. *Gestation*, shown at RMIT gallery in 2002 used David Rokeby's VNS (Very Nervous System) video synthesis as a controller of the elaborate sound fields, which provided data from which emergent digital embryos were generated in the next room. These visual outcomes were designed to be the by product of the immersive interactive sound activity in the first room, the sound taking precedence over the eye, in reverse to commonly held digital art procedures which preference the screen over the ear. The absence of visual forms intensifies the experience. Contrastingly, Iain Mott's has collaborated with sculptor Mark Raszewski over many years to create interactive sound sculptures which offer the auditor inventive interfaces to drive the sound such as *The Talking Chair*, the *Squeezebo*x, and the *Sound Mapping* mobile suitcases. A recent work *Close* incorporates video and binaural sound, while a future international project *Chinese Whispers* will use peer-to-peer networking to enable the sharing of spoken narratives between remote locations. "The installations will each have a device such as a telephone for entering stories, loudspeakers and a computer connected to the Internet. Computers will be unobtrusive, if visible at all, and no monitor will be used. Text panels will describe the project and state the question. The loudspeakers in each installation space will play a constantly changing array of stories from around the country. On picking up the phone, the stories will stop and the participants will hear the question spoken in their local dialect over the phone and be prompted to speak. They will then tell their story. Once they hang up, they will hear fragments of their own story over the loudspeakers and new interwoven narratives from around the country accompanied by pre-recorded environmental sounds corresponding to the origin of each voice. Eventually these stories will run their course and new narratives from different locations will be introduced until another participant refreshes the cycle with a new story." Sounding artworks designed over multiple locations reflects an interest in public space in its global form. A demonstration of the audio is available at: www.reverberant.com/cw/cwmp3.htm
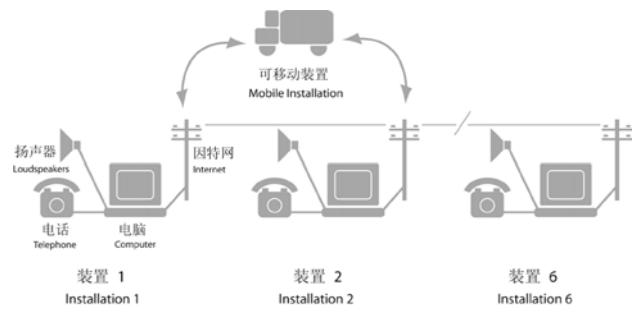

Figure 6. *Iain Mott, "Chinese Whispers", 2004-5, Future work in progress for China. Schematic diagram showing communication between installations. Courtesy of the artist*

A vast array of recording files can be automatically generated from a range of assigned highlight points so that the emergent counterpoint will change constantly according to Motts's spatial and durational presets. There are many possible outcomes, this fragment being a possible strand of a constantly changing working process and sonic outcome. Paine and Mott's works are elegantly designed from all points of view due to their multi-skilled backgrounds as composers, installation and visual artists, and their experience collaborating with other artists and with audiences. Both have developed original ways of integrating IT and coding skills for the service of their artistic visions. Paine's work *Reeds* is an environmentally sensitive work which uses realtime weather data to shape and sculpt the spatial and sonic outcomes. These were heard from sophisticated sculptural reed pods containing speakers floating on the lake in the Melbourne Botanical Gardens where the work was first commissioned for the Melbourne International festival. www.sounddesign.unimelb.edu.au/web/biogs/P000258b.htm.

One is reminded of Les Gilbert's early installation at Southbank Boulevard, bordering the Yarra river, Melbourne which also used a weather station to computer control elements of the sound events along the Boardwalk in its initial design.

Figure 7. *Les Gilbert, SouthBank Installation, Melbourne, 1991, Photo Ros Bandt*

5. COMPLEX HYBRID FORMS

A completely original sounding artwork which is at once a sound sculpture and an interactive musical instrument is *Federation Bells*, at Birremung Marr, designed by the sculptor Anton Hassel and composer physicist, Neil McLachlan. It is a remarkable work from several points of view. The first and most obvious is that is of political significance, it being a gift of the state to the people to celebrate the centenary of Federation. The second is that the acoustic properties of the bell have been reassessed to create a new cross-cultural bell, including both Asian and European influences in its design. The third is that it is a programmable and playable musical instrument capable of automatically playing computer generated compositions such as those by the seven composers commissioned for the opening, Broadstock, McLachlan, Boyd, McDermott, Koukias, Norman, Paine. It has a playable keyboard interface, which means one could theoretically perform and improvise with or through the bells in real time. Fourthly it has a capacity to receive on- line compositions in the future as composers can compose sound structures for it from anywhere in the world. To date, these last two characteristics have yet to be realised.

The relationship of the sound to the site needs examination in all sounding artworks. At Birremung Marr original bell tones created by two artists and designed to be played at 8 and 5 o'clock daily are introduced sounds. Many hours of silence occur when the piece becomes a beautiful static sculpture one can walk through. For several months it has not been sounding at all due to a maintenance problem, existing as a sculpture which is a poetic metaphor, for sound that might be.

Figure 8. *Hassel and McLachlan, "Federation Bells", Birremung Marr*

6. PUBLIC SPACE – COMMUNITY VOICES

A different approach is where the sounds of the community using the public space are integrated with the sound sources and merely woven together by the artist such as in the case of *The Listening Place*, Alma Park, commissioned by the City of Port Phillip for the *Margins, Memories and Markers* project. In this work, stories collected in many different languages from users of the park are part of an hour long composition mixed with the ambient sound of the park as well as sounds referenced in the stories, such as dogs barking, trains, the beach etc. The commissioning body, the Council defined the demographic representation of the community content in this work rather than the artist and several community workshops were held prior to the artist's engagement. Words for listen in several languages were etched in bluestone, the idea of the sound artist typeset by the visual artist and co-ordinator Julie Sheills and with the seat realised by the Council. The instigation of the sounding artwork by the hosting body and the community itself ensures its relevance and longevity. It was very much a community team who executed the work and they took ownership for it under the guidance of Ilka Tampke and the landscape architect Adam Nitschke.

Figure 8. *Bandt, Ros, The Listening Place, 2003, Alma Park. Photos Ros Bandt*

7. CONCLUSION

Artists have designed sound in public space in many different ways, from indoor, outdoor, temporary, permanent small and large scale, as the table in the appendix shows. Some works have many forms such as *Federation Bells* and *Chinese Whispers*. Indeterminate and varied sonic outcomes are seen to be desirable and programmed in to many works. In some cases the visitor may be given the opportunity to play, intercept, change or make sound contributions for the designs. Some communities have defined their own sounding artworks. Australian sound art in public space bears the fruit of much artistic vision, clever systems design, and complex political agreements. On the Australian Sound Design Project website there are over 130 works with 70 different function descriptors. Visit the physical locations if you can for exciting auditory and participatory spatial listening and if this is not possible experience them audio-visually in the on-line gallery of The Australian Sound Design Website at www.sounddesign.unimelb.edu.au. The soundscape is changing as more and more works are introduced just as the ambient sound is changing according to changing lifestyle patterns. The introduction of all sound into the environment needs to be sensitively monitored by the artists and public alike. The right to quiet may need more attention. The table shows that all works in this paper have taken this into account which is a good sign. The soundscape of the future is being shaped wittingly and unwittingly by the attitudes and sonic additions of the present. As Murray Schafer advises, keep the ears open (Shafer, 2003).

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[13] *The Australian Sound Design Project* is at http://www.sounddesign.unimelb.edu.au. Over one hundred and thirty works have been published on the website alphabetically accessible through a Browse page. Works can be called up by artists, site, title, events, organizations and function. The inclusion of a multimedia gallery for each work allows not only for text, image, diagrams and audio, but also the temporal audiovisual video to be experienced. Aspects of sound art, artists and works can be searched, and refereed theoretical and multimedia papers read (Carter, Belfrage, Burt, Bandt, Paine). Other extensive research tools include a searchable bibliography, (340 entries) and links to software, funding and organizations. If you have original sound works you would like to include on the site, visit the contribute page http://www.sounddesign.unimelb.edu.au/site/contribute.html, or contact

Dr Ros Bandt or Iain Mott at the Australian Centre, the University of Melbourne.

9. APPENDIX I. COMPARATIVE SUMMARY OF SOUND DESIGN FEATURES IN WORKS DISCUSSED

9.1. Part 1

Sound Designed Features	Rice Paddies	Love is a…	Audiotheque	Cairns Airport	Meta Diva
1.Commissioned	X	ASDP	ASDP		
2.Community consult.					
3.Site indoor/ outdoor	O	I	I	I	O
4.Type of Collaboration	Cross artform	Duet		Composer, computer engineer	
5. Macro form installation, I, performance P	I, P	I	I	I	I
6. Micro, sound sources, soundscape, environmental, algorithmic, sampled, original, improvised, live performance, electronic	Env, s, o, elect, live perf, improvised	S,o, env,	Varied electronic soundscape, Algorhythmic, Sampled	Soundscape, electronic environmental, electronic	Found polychips on timers
7.Temporary or Permanent	T	T	T	P	P
8. Duration	3 weeks	3 weeks	2 weeks	24 hour	daytime
9. Systems	CD Radio, live	Computer programmed	Computer programmed	Computer programmed	Solar chips
10. Interactivity	Yes	Yes	Yes	Flight	Light
11. Environmentally sensitive	Yes	No	No	Plane sensitive	Yes
12. Mixed Media	Cd Radio	Assemblages Video	Touch Screens, Headphones	Murals	Sculpture
13. Visual sculptures	Tank, platform	assemblages	Headphone lounge	No, murals	Florettes in lake
14. Screens	No	Yes	Yes	No	No
15. Speaker Arrays	Stereo	16 in sculptures	8headphones suspended	Wall painted speakers throughout	Tiny In florettes
16. Internet				Yes	
17. Silence	No	Yes	Yes	Yes	Yes
18. Listener Pathways free	Street	Free	Restricted	Guided	In lake

9.2. Part 2

Sound Designed Features	Gestation	Chinese Whispers	Southbank Promenade	Federation Bells	The Listening Place
1.Commissioned				State govt	City of Port Philip
2.Community consult.		Yes		Yes	Yes
3.Site indoor/ outdoor	I	O	O	O	O
4.Type of Collaboration		General public / Visual artists			City of Port Philip,
5. Macro form installation, performance	Audience interactive installation	Audience interactive installation	Installation	Inst, musical instrument 7 original compositions	Installation

6. Micro, sound sources, environmental, algorithmic, sampled, original, live performance, electronic	Algorithmic, samples, electronic, environmental	Audience interviews, algorithmic, environmental	Sampled, electronic environmental	Computer programmed acoustic bells	Community voices, environmental electronic
7.Temporary or Permanent	T	T	P	P	P
8. Duration	3 weeks RMIT	Variable	24 hour	2 performances per day 8 &5	Daylight hours
9. Systems	VNS, video programming, algorithms	Internet computer controlled realtime streaming	Computer programmed random files	Timed performances, computer controlled	60 minute loop
10. Interactivity	Yes	Yes	Weather	Potential	No
11. Environmentally sensitive	No	Yes	Yes	No	No
12. Mixed Media	Yes	Yes	No	No	No
13. Visual sculptures	No	Telephones / Objects and texts created by visual artists	No	Yes	Yes
14. Screens	Yes	No	No	No	no
15. Speaker Arrays	Quad	Multi –site	Boardwalk	No	Stereo in ground
16. Internet	-	Yes		Yes	no
17. Silence	Yes	Yes	Yes	Yes	Yes
18. Listener Pathways	Free	Fixed	Free	Free	Seated