

Edith Cowan University
Research Online

Sound Scrips: Proceedings of the inaugural Totally
huge New Musical Festival Conference 2005

Conferences, Symposia and Campus Events

2005

Western Electric: A survey of recent Western Australian electronic music

Lindsay Vickery

Refereed papers from the Inaugural Totally Huge New Music Festival Conference,
This Conference Proceeding is posted at Research Online.
<http://ro.ecu.edu.au/csound/S>

Western Electric: A survey of recent Western Australian electronic music

Lindsay Vickery

La Salle-SIA College of the Arts,
Singapore

Abstract

This paper surveys developments in recent Western Australian electronic music through the work of a number of representative artists in a range of internationally recognised genres. The article follows specific cases of practitioners in the fields of Sound Art (Alan Lamb and Hannah Clemen), live and interactive electronics (Jonathan Mustard and Lindsay Vickery) and noise/lo-fi electronics (Cat Hope and Petro Vouris) and glitch/electronica (Dave Miller and Matt Rösner).

Like all Australian states Western Australia has a comparatively large land mass which has developed a highly centralized population (over 75% of inhabitants) in its capital city Perth. As a result this paper is principally a survey of recent activity in Perth, rather than the whole state. Perth is also rather peculiar, being a medium-sized city (roughly 1.5 million) that is separated from other similarly sized centres by four to five hours by air. This paper will consider some of the possible effects of this isolation in the context of the development of a range of practices and methods in electronic music that reflect similar directions elsewhere in the world. I have chosen a cross section of eight artists working across a range of genres that all utilise electronics as a fundamental component of their work.

The paper is a companion in some respects to my article for the journal *Organised Sound* (2001).¹ Any survey of activities in provincial city must first consider the problem of documentation. Australia itself is a provincial country with a population of predominantly European origins, traditions and outlook. Despite the existence of many innovative artists working in a range of New Music and experimental music genres, publications on the work of Australian composers and sound artists is relatively poorly documented.

Perth faces a double difficulty, being both a minor subset of this problem (with 8% of the country's population), as well as being out of sight and mind of the other principal population centres that are for the most part situated (by Australian standards) relatively close to one another. This paper is intended to redress a lack of printed material on the developments of Western Australian composers and sound artists working with electronics.

Since my last article the problem of documentation has been somewhat redressed through an increasing number of articles published by artists on their own work notably in the *Australasian Computer Music Journal* and conference proceedings such as this one (see Appendix below). There has also been an increasing trend for composers and sound artists to appear on the radar now through collaboration with artists working in fields that have a stronger tradition of documentation such as the visual arts (where the artwork is less ephemeral) and sciences. Finally, the ubiquitous internet increasingly provides evidence of the activities of artists both above and underground. The problem with internet of course is that the searcher must know what is being searched for. This is the reason that a paper such as this is perhaps only possible for someone with inside knowledge of the scene such as myself. The negative side of such proximity is of course personal bias (and perhaps a tendency to overrate one's own contributions). So it is should be with these warnings in mind dear reader, but with the knowledge that this flawed reflection might be one of very few to be found, that, if you will, you proceed.

Sound Art

Alan Lamb

Alan Lamb is probably Western Australia's best-known sound artist. His principal medium is the meticulously recorded vibration of very long wires. Although this phenomenon was first noticed at the very beginning of the telegraphic era,² and has been explored by others such as the American composer Alvin

Lucier, Lamb has however examined “wire music” almost exclusively and to an unprecedented extent over some twenty years.

Lucier’s work “Music on a Long Thin Wire” (1965) explored the complex and unpredictable nature of the long wires as a musical installation in an informal way:

When I started making the piece, I just didn’t bother to do any analysis or learning about the wire tension, mass and weight. I just set it up between a couple of tables and discovered that the imperfection of the way it was installed made a very interesting and wonderful sound. It was always changing. That’s the interesting thing about it—it isn’t fixed like a string on a piano. It’s subject to all kind of internal and external things.³

The vibrations in Lucier’s wire were driven by an electromagnet (the inversion of the guitar string and pick-up configuration). In contrast Lamb’s recordings predominantly document the natural vibrations of wires, and a finished work may be based on forty hours or so of “field recordings.” His earliest site dating from the mid 1970s was a set of abandoned telegraph wires in Western Australia’s the Great Southern region. He has had numerous other sites over the years, by necessity removed as much as possible from the hum of human activity. Typically recordings are made over long periods while Lamb is camped nearby, facilitating numerous experiments with different recording techniques and opportunities to sample the wires under varied atmospheric conditions. The recordings are then catalogued by Lamb, before their assemblage into large scale sound works of often vastly varied character.

Lamb’s wire music has been documented relatively thoroughly,⁴ however the sounds themselves seem mercifully resistant to reinterpretation. Lamb also takes an “open source” approach to his recordings, making them available to other artists. But despite being appropriated (in the most well intentioned way) by artists of Ambient music, New Age, improvisation and New Music persuasions (myself included) and completely reinterpreted from scratch (*Night Passage Demixed*),⁵ Lamb’s recordings retain an irreducible “essence” (as Pierre Schaeffer would term it) which is a testament to his success in capturing the raw, primal quality of these sounds minus the artist’s ego.

“Wire music” continues to be a unique contribution to the soundscape, and its curious affinity with the Australian outback also remains one of the key qualities in its international profile. The recent inclusion of Lamb’s assemblages in a film about the notorious “backpacker murders” attests to its evocative and perhaps unnerving connection with the Australian outback.⁶

Lamb has gradually shifted his working methods from analogue to digital, and even shifted on occasion from laborious studio mixing to create his work in real-time via a collaboration with British sampling violinist Kaffe Matthews. He was a featured artist at Melbourne’s Liquid Architecture Festival in 2005, where his work was diffused by Philip Samartzis, and Lamb’s unique compositions are likely to be causing ears to prick up for some time to come.

Hannah Clemen

Hannah Clemen’s work has followed a very logical path towards what might be seen as the very heart of the musical experience. Her early works inhabited a sound world not dissimilar from much New Music chamber music, influenced most perhaps by Ligeti. They rapidly evolved toward a more general exploration of musical texture and an increasing dialogue with the effect upon the audience of acoustical phenomena. This enquiry became closely linked to her extra-musical interest in meditation and associated religious practices, culminating in *A-che Lha-mo* (2000) for two clarinets, pre-recorded CD and live effects processing and sample triggering. The composer writes:

A-che Lha-mo represents the evolution of an individual’s consciousness from the intellectual to the intuitive, and how clarity of thought emerges when the scattered fragments of the “thinking” mind are united.⁷

The work included quasi-ritualistic elements in the positioning and movement of the performers, some of which were unrealisable for the first performance. Their absence however, drew Clemen on towards a more consistent and thorough investigation of the roles of composer, performer and audience in sound work. In particular the non-participatory, non-interactive nature of the audience/performer relationship. The works that followed increasingly sought to dissolve the barrier between audience and performer. This direction in music was perhaps implied by the works of Cage (or even Ives), but currently perhaps one of the best

known exponents is American Pauline Oliveros (1932-present). It is not surprising then that Clemen has gravitated toward Oliveros' work and research and attended workshops offered by her Deep Listening Foundation.

Belly Breathe, Belly Brain (2002) and *Pillars of Sleep* (2002) created for visual artist Sarah Douglas' installation *contrappunto v* (2002) began this evolution. *Belly Breathe, Belly Brain* again included a pre-recorded CD and sample triggering, but significantly also a freestanding metal frame strung with sonorous pieces of "junk" metal for the audience to interact with, and further fuelled her interest in "the 'ritual' of performance."⁸ *Pillars of Sleep* on the other hand, created only from her own breath sounds and a field recording of crickets chirping, awakened her to the power of using minimal sound sources to focus the audience's attention: "I discovered that the slow, subtle changes encouraged the listener to engage more deeply with the work."⁹

These two pieces pointed the way towards a suite of related works *Intraspectral* (2003) and *Beneath Becoming* (2004) which were presented together in a complimentary installation with the audience members encouraged to engage with both works as a complete participatory experience. Both works involve a process of 'tuning' of the installation to the participant. In *Beneath Becoming*, the first installation encountered by the audience, the interface is a manifestly physical one in which a belt fastened around the participant's diaphragm measured their breathing rate as an interface to control a soundscape composed again principally of breathe samples.

The algorithm Clemen employed drew the participant towards deeper and more regular, meditative breathing with various stages of attainment mark by the addition of layers to the sonic texture. *Intraspectral* used the participant's own voice as the sound source, however it is not "sampled" conventionally (that is in its entirety) but instead harmonically analysed so that partials of the voice are sustained to create a musical texture from the spectral components of the voice's unique timbre. The sounds were then fed back via speakers into back lit pools of liquid which vibrated in "sympathetic" patterns. A complete cycle then, from the physical to the computer generated back to the physical, was attained by transforming the vibrations from the voice generated soundscape into patterns projected onto the ceiling above.

Live and Interactive Electronics

Jonathan Mustard

During the 1990s Jonathan Mustard created a groundbreaking set of pieces for soloist and electronics, the *RoboSax* series.¹⁰ *RoboSax* (1990-96) examined the dynamics of man-machine musical interfaces. These were followed by a set of related "soloist and live electronics" works *Flutebyte* (2002), *Ahh Ficus Ficus!* (2002), *Breather* (2003), *Victoria High Quality* (2003). These works continued to explore the possibilities of using MAX/MSP software as a platform for interaction. Perhaps mirroring the decline of global "techno-fear" following the anti-climactic no-show of the Y2K bug, these works do not feature the same antagonistic relationship between man and machine found in the *RoboSax* series. On the contrary, the works seem to revel in the supportive qualities of electronics, resembling more closely the luscious textures of ambient electronica.

After this short period utilising what are now relatively conventional control sources—laptop and MIDI keyboard—Mustard again struck out into new territory. Using the colour tracking features of MAX/MSP's video manipulating offshoot Jitter, he embarked on a prolonged investigation of colour and space as a control source for interactive sound. Each of these works interactively employs colour tracking of fluorescent paint or fabric via a video camera as the control source for the computer generated soundscape.

The desire to bridge the gap between light and sounds dates back to Aristotle and Pythagoras. More recently "in the 1920s, Walther Ruttmann and Oskar Fischinger were pioneering visual music films in Germany, using tinted animation to live musical accompaniment."¹¹ The use of computers to digitally process sonic data and generate it as images was pioneered by Laurie Spiegel at Bell Labs with her "VAMPIRE" program (Video And Music Program for Interactive Realtime Exploration/experimentation).¹² Since that time there have been many other practitioners exploring the light and sound nexus. Mustard's work (against the trend) explores the problem from the opposite angle—a musical interpretation of image. His use of "black light" and luminous paint also has a theatrical flair to it, that is very uniquely the composer's own.¹³

In the first work in this new genre *Sideshow Mustard* (“Killer”) (2003) the soloist is a black-masked and mute actor illuminated by a “black light” and seated inside a little puppet theatre. While the actor gradually applies various layers of fluorescent paint, looking something like a serial killer preparing for a big night out, a video camera (and the audience) look on. As the audience progressively become aware of the relationship between colour and gesture and the increasingly disturbing sounds, the actor begins to play a black and humorous game with expectations: are we behind the mirror or is he watching us from the privacy of his duck blind?

Theatrical (and macabre) aspects are again explored in Mustard’s *Dismembered* (2003), for dancer and two puppeteers with MAX patch and video input/output. Illuminated again by black light, a fluorescent-clad dancer is assembled out of component legs, arms, torso and head (manipulated by black-clad assistants), then dances for our amusement before losing control of her constituent parts that fly off to dance by themselves. Again the key to the work is the imaginatively programmed interactive sound which sits on the edge of haunting and slapstick at various points in the work.

These two works served it seems as experiments in the process of creation of the ambitious *Dis-Patch* (2004), made in collaboration with choreographer Chrissie Parrott. Premiered at the opening of the Queensland University of Technology’s (QUT) new Creative Industries Precinct, *Dis-Patch* significantly expands on the previous two “black light” pieces with three dancers clad in custom-made fluorescent costumes (by Shaaron Boughen), two camera feeds and the expansive QUT Loft Blackbox space as a canvas. The multi-section work draws on elements of *Sideshow Mustard* (the disturbing painted man) and *Dismembered* (the independently moving figures in space) but ventures beyond them, firstly in the complexity of movement created by a fully choreographed production, secondly in the “computer’s eye” projections of the colour tracking process on the rear wall of the space, and perhaps most importantly in its finale: a deconstruction of both the technology and concept. As the end of the work draws near, the lights begin to rise (causing the colour tracking to be triggered unpredictably) and finally projections give way to “live” images of the computer software completely with frantically searching cursor.

Lindsay Vickery

My 2001 survey of the electronic scene in Western Australia hinted a desire “to create a robust system that integrates developments in contributing image, audio and interactive technologies into a stable, portable and relatively inexpensive system.”¹⁴ The intervening years have indeed seen the development of such a system. The works *Your Sky Is Filled With Billboards of the Sky*, *Scan*, *PAID TO WATCH*, *Cytoblasty* and *Microphagia* (all 2002) use the same arrangement of MIBURI-clad performer controlling sound via MAX/MSP software and images through STEIM’s Image/ine software.¹⁵

The works investigate the implications of placing the performer in control of their visual and sonic environment in a variety of ways.¹⁶ *Scan*, made in collaboration with dance company Skadada, focuses on the man/machine aspect giving the performer extremely rapid jump-cut capabilities and a repertoire of machine samples (created by John Patterson). *Cytoblasty* and *Microphagia*, made in collaboration with Tissue Culture and Art, deploy the system as a pseudo-microscope allowing the performer to navigate moving images of tissue cultures. *PAID TO WATCH* explores the dramatic potential giving the actor/performer access to images and sounds to enact a film-noir-like narrative. And finally *Your Sky* includes a live visual feed of the performance (in addition to other images) creating self referential situation in which the performance and its visual representation are manipulated by the performer.

The performance paradigm in which a soloist improvises within a soundscape made of their own live performance became the central focus of a set of works beginning with *Delicious Ironies* (2001). In *Delicious Ironies* the intention was to use sound samples that were pertinent to the soloist, but also volatile and erratic enough to inspire an interesting response. For example different pieces in the series drew on morphologically related samples from film noir, boxing movies, record glitches or various extended techniques by the performers themselves.

This idea was further developed in *Splice* (2002) which imposes the same formal structure as *Delicious Ironies* (2001) but in which live sampling of the soloist’s improvisation is used to create the works sonic contents. This results in a rather different outcome:

Psychologically the process of interaction that occurs in *Delicious Ironies* is now partially reversed: the soloist is ‘loading’ the samples, however the computer still controls the timing of the

actual sampling and playback. The computer's timing (although consistent) is opaque to the performer, creating a degree of uncertainty both about what has been sampled and when it will return.¹⁷

The processes employed with sound in *Splice* point to and expansion into visual domain in my as yet unfinished work *Mr Lucky*.

A re-emergence of interest in conventional chamber music (not documented here), brought about a convergence of these practices in a suite of works for tempo controlled performers: *Whorl* (2003), *particle + wave* (2004) and *Zwitschern* (2005). In these works each player receives a separately varying click-track (with five tempi and connecting accelerandi and rallentandi), as well as instructions on what dynamic, musical material and pitch set to play. This arrangement creates an unusual set of conditions for the performers in which their listening skills are divided between synchronization with the computer generated click-track and 'ensemble' playing through listening to the other players.

The final new direction for my work has been the use of digital video as a score-film: a visual form of performer interaction in which images provide the impetus for performer improvisations. The use of video as an integral component of my multimedia works—*songs of [virtual] love + war* (1998/2001), *counting | shaking* (1998/2001)—and *Rendez-vous: An opera noir* (1995/2001) directly led to the concept of the score-film in which projected images are used as a non-specific form of notation.

The works that followed, namely: *whythisandnot-another?* (2001) (in collaboration with Tanja Visosevic), *Fantastic Voyage* (2002), *Strange Tides* (2002) and *Meart/Mesound* (2002) (all in collaboration with Tissue Culture and Art), as well as *Detour (after Edgar G. Ulmer)* (2003), developed this investigation. In particular the work *Fantastic Voyage*,¹⁸ created for the improvisation duo HEDKIKR (saxophone: Vickery, drums: Darren Moore), has demonstrated the high level of synchronization in tandem with a high degree of freedom that is achievable after repeated performances. This aspect became so pronounced that the most recent version of this work (Audio Art Festival, Krakow 2004) incorporated the live sampling aspects of splice to generate a "refreshed" soundscape for the performers, to counter the tendency to "fix" the improvisation into particular forms and gestures. A proposed new version of the work uses the computer to interactively assemble the images in real-time.

Noise and Lo-Fi Electronics

Cat Hope

Cat Hope is an imposing figure on the Western Australian scene, her solo work is best summed up by this entry on the Australia Adlib website:

Cat Hope has developed a unique set of chops, a powerful stage presence, great control of electronic feedback, she also knows where number eleven is on the volume control of her amp, making her probably the noisiest woman that I've ever heard on a stage anywhere. She is a kind of one-man-band answer to The Soft Machine circa.1969, which was the loudest thing I have ever experienced.¹⁹

As a solo artist her work often inhabits a region between noise artists such as Merzbow and the interrogation of the dark-side of contemporary culture found in the ever-evolving genre of death metal.²⁰ This work, including that of her now defunct duo Lux Mammoth (bass: Hope and Dr Alien Smith; such as *In Its Own Blood*, 1999, and *Tools*, 2000) is discussed elsewhere.²¹

While continuing to tour with her solo noise act (featuring bass guitar feedback and a variety of performance implements, such as bows, whips and radios), Hope has worked increasingly with installation and multimedia. Her audiovisual duo cAVity, with Anne Walton, used a garment developed by Hope called the DACS (Digital Audio Control Skirt) as a site for sound and projection "that transpose impressions from fetishized sites, surfaces and actions."²² The DACS was realised by cAVity as a hybrid screen and audio manipulation instrument for use in performance.

Thematically her recent work centres predominantly around forms of surveillance. Her recent work *Voyeurages* (2005) was a live performance installation featuring ten participants, ten video projectors and ten mp3 players. Hope sourced ten people from the community, and worked with them individually to gather video footage and sound material relevant to the experiences of their physical locale. The premiere of

the work involved the artists' own travel footage and recordings. All of the individual information was collated into ten separate thirty minute DVD and audio tracks. This was then projected in the installation onto each participant's naked back while the sound was played back from a small mp3 player connected to a speaker in each participant's mouth. The audience for the event were free to move among the participants, who were two metres apart in a arrow formation pointing to the artist's current home.

In *Voyeurages* (voyeur/voyage), Hope reflects upon the tendency of the individual to interact with detachment when moving or travelling within non-local communities: an increasingly common occurrence in large city and travel experience:

We travel amongst cities and even our own towns without really being part of them, without truly communicating within them. We live inside these descriptions written for us by media and politics, but unless you can get very close to real people we are nothing more than voyeurs. We have lost our sense of journey and voyage, when we visit a city we barely touch the surface of its culture or personality all the airports look the same, chain stores appear in every country it is increasingly difficult for us to find the real essence of a place.²³

Hope's installation *Pickpocket* (2005) comprises a large gilt frame which contains thirty eight flash disc digital voice recorders with built in speakers which record and play back sound events of the visitors "who come to 'see' the work."²⁴ The recorders use voice activated recording technology to record the viewing audience and then replay the recordings "in motion" from different points on the frame. The audience, once they become aware of the process unfolding then have a sense "that they can see the sound move about in the frame." Here the relationship between the "framed" visual artwork and the (usually) transient nature of Sound Art is highlighted, as well as that of the passive audience and the static framed artwork, as here the framed art surveils and appropriates from the viewer.

Finally, her collaboration with sound artist Rob Muir (as Metaphonica), *Phone Box* (2005) utilises the ubiquitous mobile phone to create a participative and ever-changing artwork. A set of mp3 enabled mobile phone handsets store Sound Art created by the artists, sourced from the sounds of telephony. Visitors to the installation are invited to call the work (free of charge) from any telephone to interact by triggering new sounds.

Petro Vouris

Petro Vouris, whose work spans visual and sonic arts, used a battery of lo-fi and vintage electronics to develop a unique body of electronic works—both as a soloist, and in collaboration with other Western Australian artists, such as in *Who Killed Amy Grant?* (2001) (with Hannah Clemen), *Perfunktory Stain* (2002) (with the author) and *Friendly Firewire and Other Casualties of Infoland* (2003) (with Stuart James), as well as international and interstate figures such as Ikue Mori (NY), KK Null (Japan), Kaffe Mathews (UK) and Splinters (Melbourne). His installation *Blood-Drum* (2001) as part of the installation *Peep-in-Death* (held in a peep in porn parlour) explores similar territory to Cat Hope, consisting of a perspex cast of the artist urinating blood and accompanied by the looped sound of artist's blood dripping onto contact-mic-ed surface:

The metric neutrality of dripping becomes an ambivalent abstraction with the detachment of blood from the intimacy of its organic function within the body, and the implicit risk of exposing it to air.²⁵

His recent works revolve around the label he formed with Melissa Vincent, Bourgeois Bogan Records. The move towards an engagement with popular culture is reflected in the increasingly outrageous antics of his persona Silky Crusher (with his supporting band The Sex) who presides over events such as Rock'n'Wrestle, featuring glam music, DJs and live wrestling in a nod to Cyndi Lauper's 1980s extravaganzas.

Glitch and Electro

Dave Miller and Matt Rösner

One new trend on the local scene (and around the world) has been an expanding and merging of more commercial electronica and avant-pop with the "art" music scene. After various series of "nights" featuring music that is generally speaking for listening rather than dancing (or drinking) in various

locations, Dave Miller's regular "Aesoteric" night has settled down to be the most consistent venue to hear emerging electronica artists who are coaxing interesting sounds from card tables full of electronics. The Aesoteric play list is substantial and eclectic, all good signs of health for the local electronica (and associated sub-genres) scene.²⁶

Miller himself works with live sampling software in his performance both as a soloist and with Manuel Bonrod as The Breakups. He has also performed with a range of figures on the international scene such as: Prefuse 73, Manitoba, Farben and Four Tet.

Matt Rösner performs solo (as M. Rösner) and also as Pablo Dali. Like the US-based Matmos, in his work as M. Rösner, he uses "minimal organic fragments gathered from acoustic instruments, microphone recordings and environmental sounds are digitally processed to create an introspective listening space."²⁷ Under the name Pablo Dali, Rösner "uses an acoustic guitar and powerbook manipulations to create a hybrid sound that is both acoustic and electronic at the same point in time; organic but also digital."

There is currently (throughout the world) a symbiotic relationship developing between the electronica and electronic "art music" scenes. Perth reflects this trend clearly. In terms of documentation the electronica scene is perhaps even more poorly represented and certainly a lot less contextualised and theorised than the "art music" scene. It seems likely that research into this field is likely to expand considerably in coming years.

Conclusion

The artists discussed below represent some of the leading developments in electronic music in Western Australia over the last five years. Clearly it is the case (and has been for some time) that the state's physical isolation is not necessarily reflected in the artistic endeavours of its inhabitants. Although the scene is relatively small, the increasing growth of support from audiences seeking new electronic thrills from the techno and electronica scenes, as well as a strong level of cooperation between the artists themselves (regardless of genre) is contributing to a healthy report card.

Appendix: Western Australian electronic music composers—a bibliography

All online materials were accessed between Jul 2005 and March 2006.

- Alach, F., "Is this Art?" <http://www.pica.org.au/artist01/TIS/TIS-essay.html>
- Anon/various, "Alan Lamb Biography," *Australian Sound Design Project* <http://www.sounddesign.unimelb.edu.au/web/biogs/P000277b.htm>
- Broadstock, Brenton, *Sound Ideas* (Sydney: Australian Music Centre, 1995).
- Burt, Jon, and Katie Lavers, "Skadada: The creation and development of multi-artform performance," *Proceedings of the Australasian Computer Music Conference* (2003).
- Burt, Jon, and Katie Lavers and Lindsay Vickery, "Representations of Recombinant Memory in Interactive Performance Works," *Proceedings of Qi and Complexity: Consciousness reframed conference* (2004).
- Callaway, Frank, and David Tunley, *Australian Composition in the Twentieth Century* (Melbourne: Oxford UP, 1978).
- cAVity [Cat Hope and Anne Walton], "Skirting the Square Screen," *Proceedings of the Australasian Computer Music Conference 2003* (2003), pp. 122-3.
- Clemen, Hannah "Enhancing the Experience of Music-Ritual Through Gesturally Controlled Interactive Technology," *Proceedings of the Australian Computer Music Conference* (2002).
- "Interactive Sound Installations Designed For Encouraging Meditative States," *Proceedings of the Australasian Computer Music Conference* (2003), pp. 118-121.
- "Interfaces for Public Use Interactive Installations: Some design concepts, problems and possible solutions," *Proceedings of the Australasian Computer Music Conference* (2003), pp. 27-35.
- *The Use of Principals and Techniques Derived from Meditation for the Design and Creation of Co-Participatory Musical Systems*, unpublished MA thesis (Perth: Edith Cowan University, 2005).
- Covell, Roger, *Australia's Music* (Melbourne: Sun, 1967).
- Coyle, Rebecca, *Sound in Space* (Sydney: Museum of Contemporary Art, 1995).
- Crawford, Al, "Night Passage Demixed," http://www.awrc.com/review/v/night_passage_demixed.html
- Ford, Andrew, *Composer to Composer: Conversations about contemporary music* (Alexandria, NSW: Hale and Iremonger, 1997).
- *Undue Noise* (Sydney: ABC Books, 2002).
- Hope, Cat, "A Wardrobe of D.A.C.S—The development of an interactive garment," *Proceedings of the Australasian Computer Music Conference* (2003), pp. 105-9.
- James, Stuart, "Possibilities for Dynamical Wave Terrain Synthesis," *Proceedings of the Australasian Computer Music Conference* (2003), pp. 58-67.

- Jenkins, John, *Twenty Two Contemporary Australian Composers* (Melbourne: NMA Publications, 1988), also <http://www.rainerlinz.net/NMA/22CAC/>
- Jenkins, John, and Rainer Linz, *Arias* (Melbourne: Red House, 1997).
- Lamb, Alan, "Metaphysics of Wire Music," *New Music Articles*, 9 (1991), pp. 3-6
- McCredie, Andrew, *Musical composition in Australia, including select bibliography and discography: Catalogue of forty-six Australian composers and selected works* (Canberra: Advisory Board, Commonwealth Assistance to Australian Composers, 1969).
- Miller, Dave, et al, "Aesoteric," <http://www.meupe.net/aesoteric/about.html>
- Morgan, R.G., "Metamorphosis as a Musical Algorithm," *Proceedings of the Australian Computer Music Conference* (2002).
- Murdoch, James, *Australia's Contemporary Composers* (Melbourne: Sun, 1975).
- Mustard, Jonathan, "Aesthetics In Sight-to-Sound Technology and Artwork: 'Why do we do it?'" *Proceedings of the Australasian Computer Music Conference* (2003), pp. 81-87.
- "Correlating Movement In Space to the Parameters of Sound," *Proceedings of the Australian Computer Music Conference* (2002).
- Rose, Jon, "Fetish: Cat Hope," <http://www.abc.net.au/arts/adlib/stories/s862612.htm>
- Rose, Jon, et al, "Wire Music: Alan Lamb," *Australia Adlib Website*, <http://www.abc.net.au/arts/adlib/stories/s873159.htm>
- Rösner, Matt, et al, "Pablo Dali," <http://www.pablodali.net/about.html>
- Vickery, Lindsay, "The Changing New Music Scene," unpublished discussion paper commissioned for the Australia Council for the Arts (2004).
- "Interactive Control of Higher Order Musical Structures," *Proceedings of the Australasian Computer Music Conference* (2004).
- "Moving Window: An interview with Cathie Travers," *Soundscapes*, 1.2 (1993).
- "Nine Aspects of Appropriation," *Proceedings of the Cover or Remix Symposium* (2004).
- "Nonlinear Structures For Real-Time Interactive Musical Works," *Proceedings of the Australasian Computer Music Conference* (2003), pp. 88-95.
- "The RoboSax Project (1991-2001): Forms of performer/machine interaction in works by Jonathan Mustard and Lindsay Vickery," *Proceedings of the Australian Computer Music Conference* (2002).
- "Roger Smalley," *Soundscapes*, 4 (1994).
- "Software Applications for Composers," *Sounds Australian*, 14.47 (1996).
- "Still Life With Chaos: An interview with Jonathan Mustard," *Fremantle Arts Review*, 14.47 (1996).
- "Two Pieces and an Overview," *New Music Articles* (1991).
- "The Western Edge: Some recent electronic music from Western Australia," in Leigh Landy and Tony Myatt, eds, *Music Technology in Australasia/South East Asia*, special edn of *Organised Sound*, 6.1 (2001).
- "The Yamaha MIBURI MIDI Jump Suit as a Controller For STEIM's Interactive Video Software Image/ine," *Proceedings of the Australian Computer Music Conference* (2002).
- Vickery, Lindsay, ed., *Australian Computer Music Conference 2003 Programme Notes*, unpublished (Perth: WA Academy of Performing Arts, 2003), possession of the author.
- Vickery, Lindsay, and V. Wilson, "The Synthesis of Cinematic Narrative and Opera in *Rendez-vous: An opera noir*," unpublished paper presented at the *Encountering Transformations Conference* (Melbourne: La Trobe University, 2002), partial text available from the author.

Notes

¹ Vickery, "Western."

² None other than transcendentalist Henry David Thoreau notes in his journal of 3 Sept 1851: "As I went under the new telegraph wire, I heard it vibrating like a high harp overhead. It was as the sound of a far-off glorious life, a supernal life, which came down to us, and vibrated the lattice work of this life of ours." Henry Thoreau, *The Journal of Henry D. Thoreau: In fourteen volumes (1837 - October, 1855)* (NY: Dover, 1982), quoted on <http://www.abc.net.au/arts/adlib/stories/s873159.htm> and <http://members.cruzio.com/~sahadev/thoreau.html>

³ Alvin Lucier, "Music On Long Thin Wire," *OHM: The early gurus of electronic music*, <http://www.furious.com/perfect/ohm/lucier.html>

⁴ See: Jenkins, *Twenty Two*; Lamb, pp. 3-6; Rose et al, "Wire Music."

⁵ "Demix" denotes a work created through "alternate uses for the same source material rather than different versions of the finished article" (a "remix"). Crawford.

⁶ Greg McLean, director, producer and screenwriter, *Wolf Creek* (Australia: Arclight/Mushroom, 2004), music François Tetaz et al.

⁷ Clemen, *Use*, p. 106.

⁸ *Ibid.*, p. 108.

⁹ *Ibid.*, p. 109.

¹⁰ See Vickery, "Western" and "RoboSax."

¹¹ William Moritz, "The Dream of Color Music, and Machines That Made It Possible," *Animation World Magazine*, 2.1 (April 1997), <http://www.awn.com/mag/issue2.1/articles/moritz2.1.html>

¹² F. Collopy (2001), <http://www.rhythmiclight.com>

¹³ “Black light” is either ultra violet light proper (usually in fluorescent tubes) or extremely dark tinted purple light. – *Eds.*

¹⁴ Vickery, “Western.”

¹⁵ The MIBURI is a body suit fitted with electronic sensors—like wearing an electronic keyboard.

¹⁶ See Vickery, “Yamaha.”

¹⁷ Vickery, “Interactive.”

¹⁸ *Fantastic Voyage* uses footage of cellular activity combined with endoscopic footage of the performers and their instruments.

¹⁹ Rose, “Fetish.”

²⁰ A recent flyer in Singapore for the performance *The Rise of Devastation*, includes bands branding themselves as variously heavy metal (presumably “old-school”), metal core, death metal, brutal death metal, black death metal, melodic death metal, thrash metal and (intriguingly) porn-grind.

²¹ Vickery, “Western.” See also Cat Hope, in this volume below.

²² Cat Hope, in Vickery, ed.

²³ Cat Hope, correspondence with the author (2005).

²⁴ *Ibid.*

²⁵ Alach.

²⁶ See Miller et al.

²⁷ Rösner et al, “Pablo Dali.”