
Chroma



**Newsletter of the Australasian Computer Music Association, Inc.
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RANDOM MUSINGS

AND

OTHER ODD THINGS

Including:

Sonic Residues 02 Exhibition Review

Reviews of new CD's from Canada and Argentina

EDITORIAL

Well here we are again folks, another late issue of Chroma, and another ACMC just around the corner. Although I had initially hoped to produce an issue focusing on current Australasian music software, this issue hasn't quite panned out that way. I did get a fair bit of initial interest from musicians and developers from across the board, but as Warren Burt warned me as I took over the job, the hardest part is getting the material. If the initial responses were anything to go by, however, there is a lot happening in the software scene around our part of the world.

While I was seeking these elusive articles on Australasian software, articles on other topics began filling my inbox, and before I knew it I had more than an issue's worth of words. This issue has gone from the inspiration of a specialised issue to the satisfaction of a heterogeneous collection of writings from Australia and New Zealand. It wasn't until I actually started putting the issue together that I realised the diversity of the material and of the contributors is a great tribute to the vitality of computer music in our region.

One of the most significant articles in this issue is Peter MacIlwain's discussion paper on a national approach to the teaching of electro-acoustic music in Australia. This issue also includes two CD reviews from Ross Bencina, a review from Ian Stevenson of Sonic Residues 02 (held late last year at the Australian Centre for Contemporary Art), and a perspective piece from Kristian Thomas on *Digital Art, cross identity and the intelligent stage*.

Sadly, since the last Chroma was published, Iannis Xenakis passed away. This may seem a little late, but I wished to include his obituary as tribute to his profound impact on computer music across the globe. Illustrating this is Arne Hanna's article describing his Csound score generator based on Xenakis' compositional techniques with Markov-processes.

That's my two cents' worth, so keep educating, learning, writing, producing, developing, and performing, and I hope to see you all at this year's Australasian Computer Music Conference at the University of North Western Sydney.

Dan Horwood
Chroma Editor.

CHROMA PRESIDENT'S REPORT

Computer Music activities in Australia and New Zealand are well under way for this year. New Zealand composer's have been active in organising and promoting their works and many Australian composers have been busy with installations, concerts, and software development. ACMA continues to support this activity and in this report I want to focus on Chroma, the ACMA list, ACMA web site, the ACMA conference, and ACMA membership in particular.

ACMA membership forms are included with this edition of Chroma. The next edition will only be sent to members, so sign up now! As an extra enticement memberships started now will last until the end of June 2002 – an extra three months. Members, not only receive Chroma, but will be listed on the ACMA web site with optional links to their home pages. Members receive discounts when registering for the ACMA conference, and this saving alone covers the cost of membership. Most importantly, by joining ACMA you help encourage computer music activity in Australasia and activities such as those reported in this Chroma can continue to benefit from the encouragement and dialog of the ACMA community.

The Australasian Computer Music Conference this year will be held at the University of North Western Sydney – Nepean from July 12-14. I encourage everyone to attend what will surely be another friendly and informative conference. As well as serving the electroacoustic community the conference organisers wish to continue the trend, begun at last year's Brisbane conference, to make the conference relevant to those in the electronica community as well. So, sign up for the conference soon and invite others to do the same.

The ACMA email list acma-list@list.waikato.ac.nz is being well maintained by Ian Whalley and is available for use by ACMA members as well as non members. We are keen to see this list activity used for discussions and announcements, so subscribe if you haven't already and remember to make use of this valuable resource. A related valuable resource is the ACMA web site at <http://acma.asn.au>. If you've not visited recently check it out. This is the one-stop-shop for details about ACMA member activities past, present, and future.

Chroma and the ACMA email list play a vital role in communications amongst the community. I hope that people will continue to take advantage of the ability to communicate their activities on the ACMA list and to publish more detailed descriptions of their work in Chroma. Membership of ACMA enables the coordination of these activities – so renew now.

Andrew R. Brown
ACMA President

**DISCUSSION PAPER ON A NATIONAL
APPROACH TO THE TEACHING OF
ELECTRO-ACOUSTIC MUSIC IN
AUSTRALIA.**

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In recent months there has been a discussion among ACMA members about the possibility of creating opportunities for cooperation between institutions where teaching and research into electro-acoustic and computer music take place. This short article is intended as a discussion paper that presents some options that have emerged in order to provide a basis for further discussion and as a starting point for some action. It will also put forward the case for the establishment of some form of national body that can assist with the coordination of teaching and curriculum development.

Within ACMA a certain level of cooperation already exists. ACMA conferences are characterised by a positive spirit of cooperation that is sometimes not present in other, more competitive, academic arenas. ACMA has provided a useful vehicle for encouraging co-operative projects between individual members and some cooperation between institutions on a casual basis. For institutions however the scope for co-operation is limited without some form of organisation to facilitate it. What might be useful is some form of coordination between institutions that could provide a framework in which cooperative ventures could be encouraged and developed. Furthermore, the great diversity of expertise, knowledge and experience that exists within ACMA represents a great potential for the sharing of ideas and resources in regards to the teaching and promotion of electro-acoustic and computer music. What is apparent, from casual conversations, is that there is a widespread

interest in doing this and that many people can see the benefits of some form of nation wide collaboration.

To this end it is suggested that a national body (the use of this word does not imply that either New Zealand or Australia should necessarily be excluded) should be established that can coordinate the sharing of intellectual resources and encourage co-operative ventures between institutions involved in teaching electro-acoustic and computer music. There are several possible models for this. In Australia there are a number of bodies that co-ordinate instrumental teaching such as the AMEB, or the Australian National Association of Teachers of Singing, to name a few. In the UK there is the Sonic Art network which has an education sub-committee that has been instrumental in developing approaches to curriculum in secondary schools and has established an artist in residence program within the education system. The Sonic Art network may be a useful model for the kind of organisation proposed here. Such an organisation could be a formal sub committee within ACMA which could devote itself to the development of education in electro-acoustic and computer music. In the first instance this might involve the creation of a framework for the sharing of ideas and resources in teaching and learning electro-acoustic and computer music. This might involve setting up arrangements for shared courses whereby students could spend time in different institutions in order to benefit from the diversity that exists within the ACMA community. The organisation could also provide a means by which individuals within ACMA who are not involved in institutions could participate via schemes such as the artist in residence program initiated by the Sonic Arts network.

Secondly a national body could provide resources to teachers in the form of teaching materials. This already occurs within the Australian Music Centre in relation to composition in general so there might be scope for co-ordination with the AMC. These materials would be of great benefit to teachers, not only in universities, but also in the TAFE systems and in secondary schools.

Thirdly there could be some form of curriculum coordination and development, the aim of which would be to provide legitimacy for courses being run by participating institutions. This should be

focused on helping individual institutions develop the areas in which they specialise and it is important to emphasise here that coordination does not mean homogenisation. The legitimacy that a national body could bring to education in electro-acoustic and computer music would be very useful to teachers and academics who have to make a case to their institutions for their courses. In many institutions instrumental courses are often regarded as core business within music education and this is due, in part, to the legitimacy afforded to them by organisations such as the AMEB. Curriculum development might also include making recommendations to the secondary school system in regards to education in music. At present there is little coordination between universities and secondary schools in the area of electro-acoustic and computer music with the result that standards in skills and knowledge of students entering university courses vary widely. This creates substantial problems for teachers in universities as they must devote their limited time and resources to remedial teaching in order to get their students up to the required level.

Lastly the proposed body could lobby governments, universities and other related institutions for funding and to make the case for electro-acoustic and computer music education. This case, after all is a strong one as education in this area reflects the vitality of cultural practice within New Zealand and Australia as it is at the centre of cultural and technical innovation in music. If a body like the one proposed could be established, New Zealand and Australia would have a unified and integrated network of institutions which would help to ensure ongoing the survival and development of electro-acoustic and computer music. In addition it could create a richer and more creative environment for those teaching and studying in this area.

There are several things that can be done in furthering the ideas discussed above. It is important that a wide ranging discussion be had about this issue and that as many people as possible have an opportunity to provide input into the discussion. Some discussion has already taken place on the internet and it is hoped that further discussion of this type take place. The next ACMA conference could be a good opportunity to call a meeting in which the threads of the discussion could be brought

together and some ideas about a way forward could be formed.

REV1

A world first in musical instrument construction. The definition of 'instrument' includes real, electronic and virtual approaches. The course begins in July 2001 under the direction of Australian innovative musician Linsey Pollak. It culminates in a new eight-day festival at the Brisbane Powerhouse, Australia in Easter 2002.

So not only will you make a sound construction, but a significant part of the festival will be making music with these (live or on line) . This will only happen once. It is a chance to mix and network with some of the most innovative musicians in the world today.

Have a look at the website anyway:

www.academy.qut.edu.au/music/revup

OBITUARY **IANNIS XENAKIS**

Sunday February 4 9:54 AM ET
Musical Pioneer Yannis Xenakis Dies at Age of 78

PARIS (Reuters) - Romanian-born French composer, architect and mathematician Yannis Xenakis, who invented a new genre of music composed with the aid of computers, died on Sunday aged 78.

"France loses one of its most brilliant artists today," French President Jacques Chirac said in a statement of condolence.

Xenakis, born in Romania to a wealthy family of Greek origin, moved to Greece in 1932 and subsequently fought with the Greek resistance during World War Two, losing an eye in battle.

Expelled by Greece in 1947 because of his political beliefs, Xenakis moved to Paris where he closely collaborated with Modernist architect Le Corbusier for the next 12 years.

Parallel to this, he began studying composition at the Paris Conservatory under illustrious composers including Olivier Messiaen and Darius Milhaud.

Xenakis developed a new composing technique using computers and based on the mathematical probability of the recurrence of notes and rhymes. This yielded some of his breakthrough works, *Metastasis* in 1955 and *Achorripsis* in 1958.

"By breaking free from the constraints of the classical norm, by taking the path of random music and by using the inputs of science, he contributed to the definition of a new area of freedom for musical art," Chirac said.

Xenakis became a naturalized French citizen in 1965 and the following year set up the School of Mathematical and Automatic Music.

He leaves behind a wife and a daughter.

the weight of tradition. As space does not here permit a detailing of the composer's methods, I refer interested readers to chapters 2 and 3 of Xenakis' book, *Formalized Music*.

In 1999, while studying at the Australian Centre for the Arts and Technology (ACAT) in Canberra, I wrote a Csound score generator in C language called *Mother* that is based on Xenakis' use of Markov processes. There are, for each parameter, two possible "bins" or "urns" from which data is sourced; which of these two sets of data are selected is determined by the outcome of the Markov process.

Of interest is the program's ability to preserve, for a given parameter, the sequential order of the two data streams while changing pseudo-randomly between them, i.e. a queuing algorithm. Because the matrix ("matrix" is latin for "mother") that the program uses is 2 to the power of "number of parameters" in size, there is a limit to how many parameters one can safely process without bringing the machine to a grinding halt. As a way around this, I wrote another program that keeps *Mother's* output functions but replaces the matrices with a set of automata rules based on the octal number system. This program is imaginatively titled *Automata*.

An .hqx archive containing 3 Mac binaries, an HTML and a Word manual, some example input-files, and the complete source code can be downloaded from <http://www.geocities.com/SiliconValley/Peaks/3346>

A CSOUND SCORE GENERATOR

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Markov processes are nothing new as far the generation of data for musical purposes are concerned. Their most frequent use has been as a method of analysing a recognised musical style with the intention of generating new material with the same statistical character. One of the best known example of this approach is H. F. Olsen's treatment of the songs of Steven Foster.

Less well known, but perhaps more edifying is the rather different use that Iannis Xenakis made of Markov processes in the writing of three pieces: *Analogique A*, *Analogique B*, and *Syrmos*. Not surprisingly, Xenakis was more concerned with generating music unencumbered by

TWO RECENT ELECTROACOUSTIC RELEASES

reviewed by Ross Bencina
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Travels of the Spider – Electroacoustic Music From Argentina

Pogus CD P21015-2
<http://www.pogus.com/>

Travels of the spider contains the work of 5 Argentinian composers – 7 compositions in all, composed between 1988 and 1998. The disc begins with a piece in the Acousmatic tradition: Daniel Schachter's *Tiempo Quebrado* (1993) is a carefully paced interplay of contrasting sonic objects.

Sustained tones and harmonic resonances meet the pulses of the GRM's SYNthesisTERminal to convey a sense of time in multiple axes. As time shifts, tone clusters swell highlighting the tension introduced by foreground rhythmic textures. ...*Due Giorno Doppo* (1988) by Ricardo Dal Farra begins with a rapidly pulsating rhythmic texture consisting of Italian vocal fragments sung by four 'voices' synthesised with linear predictive coding (LPC.) The procedural texture thins to silence from whence proceeds an exploration of some of the material's other gestural and textural potentials.

Martin Alejandro Fumarola's first work on this disc entitled *Callejuelas* (1996) employs sequences of FM and plucked string sounds controlled by algorithmic techniques derived from the multiplicity of routes available while walking the streets of Madrid. Once I'd read the composer's notes it was difficult not to imagine this scenario as I listened to the piece's various episodes, each with their own distinctive rhythmic and melodic character.

Ascención (1998) by Alejandro Iglesias-Rossi pays homage to sacred musics of the early European variety, the indigenous cultures of South America, and includes a number of ethnic instruments from Northwestern Argentina played by the composer. The piece is beautifully composed in a long-form narrative structure, underpinned by smoothly aggregated masses of smeared vocal clusters, pipe organs and deep drum-like resonances.

The next two works on this disc were composed for instrument and tape. The first of which is *Ashram* (1991) by Ricardo Dal Farra featuring Joseph Celli playing the mukha veena, an Indian double reed instrument. The piece is essentially a duet, with the tape part taking the form of a resonant mass of swirling nodal gestures which engages in an effective hyper-counterpoint with the sometimes schizoid mukha veena. Not Surprisingly, Teodoro Cromberg's *Marimbágenes* (1996) involves a Marimba, which plays a scampering, intentionally unidomatic score at the hands of Angel Frette. The tape part has a discursive quality, which is articulated by a variety of synthetic and sampled percussion combined with sounds which are sometimes linked to the Marimba by association: gasses, liquids and the sea.

The final work on this disc is the title track, *El peregrinar de la araña* (1995) by Martin Fumarola. This composition was thematically motivated by a "typical journey through the World Wide Web." Realised with the tone palette of a Yamaha TG77, the bell like sounds could be considered quite evocative of the influx of new information sometimes experienced while crawling the web.

Each of the compositions on *Travels of the Spider* takes a different approach towards structuring sound and time. I enjoyed listening to this disc as much for the opportunity to experience this variety of sonic worlds in close proximity, as I enjoyed listening to the individual works. This is a fine disc and would be a significant addition to any collection of electroacoustic recordings.

You can listen to several excerpts from *Travels of the Spider* online here: <http://www.digital-music-archives.com/travels-of-the-spider.htm>

PRESENCE II

PeP Double CD 002

http://cec.concordia.ca/CD/Presence_II/Presence_II.html

Consisting of 34 works by 32 composers from 11 different countries, the *PRESENCE II* double CD compilation represents a diversity of current electroacoustic practice. It is the second such compilation to be produced by PeP – the "arms length" production team of the CEC (Canadian Electroacoustic Community.) The production quality on these discs is generally high, although on my copy, track one of disc one suffered from noticeable clipping artefacts.

Disc one begins with Jorge Antunes' *La beauté indigne d'une note violette* (1995,) which uses sustained tones punctuated by vocal events to articulate a short study on the color violet, organised according to the composers Chromophonic theory. Alastair Bannerman's *In th'air or th'earth* (1997-99) is a peaceful flow of sustained enharmonic gestures peppered with processed voices and spectral implosions. *Points of No Return* (1997) by Chin-Chin Chen is a beautifully shaped series of interrupted tension building episodes articulated by a variety of processed percussive sounds. Peter Batchelor writes of his ballistic rollercoaster ride *Velocity* (1996): "this

piece involves an exploration of ways in which speed (or, conversely, stagnancy) might be implied through the use of sound."

Jef Chippewa's *DUO* (1997-98) explores a "correspondence of timbre and articulation" between the alto saxophone and analog synthetic sounds, Jef continues: "instead of a lethargic experience of linear continuity, and establishment of familiarity on a superficial level." Ian Chuprun makes effective use of linear continuity in *To many moments passed* (1998), at one point a node of sustained tones warps through time, and erupts into an amazing pulsating rhythm, somewhat reminiscent of an idling Harley Davidson motorcycle. This is followed by Chuprun's poignant etude *Reading Allowed* (1998) which processes the following spoken phrases "How do you want this read?" – "Am I supposed to read this like a child?" – "Let's try this out here."

In *Zipper Music II* (1998) Gordon Fitzell explores the musical potential of zipper sounds in an active dialog of dynamic spatial gestures. Martin Alejandro Fumarola's *ARGOS* (1988) and *SET IN* (1994) are slowly unfolding journeys through a world of sustained tones, synthetic bells and in the case of *ARGOS*, unusual modulated bird call like sounds. *Ephémère* (1997) by Yves Gigon makes subtle use of processing and deep resonant reverberation to treat recordings of the percussed 'Primordium' sound sculpture.

I found the tracks on *PRESENCE II* containing only mixed or minimally processed, recorded sound to provide an excellent contrast to the dense spectral masses of the more synthetic works. Steve Bradley's *fowl melody to trot* combines domestic histrionics, french voice over and a variety of concrète hummings and tappings to address "the challenge of learning French growing up in a mediated psychic society." Thomas Gerwin's *6 Aphorisms* (1998) presents a series of environmental snapshots, as does Pascale Trudel's *Ce n'est pas ici* (1999.) Barbara Golden's *Whipping the Boys* (1981-99) overlays pulsing analog tones with an informal discussion of recreational disciplinary activities. *Spirit Wheels: Journey* (1997) by Sylvi MacCormac is an ethereal collage of voices, penny whistle, bells and bowed drones which I found to be one of the most striking works on these discs.

Disc two contains 22 tracks, ten of which are excerpts or movements taken from larger works, in many cases I would have liked to hear the full compositions – in some cases the pieces are available in full on other releases. Few of the tracks on disk two exceed four minutes in duration, some are edited in such a way that it's easy to imagine that you are listening to a single composition – at least that was my initial experience of the first five tracks of disc 2. The disc begins with *A Palaver with Procrustes* (1998) by Martin Gotfrit, which consists of a variety of synthetic tones modulated at different rates according to the Fibonacci series. Otto Joachim's *Three Electronic Sketches* (1984) taken from a larger cycle of 7 are interesting sonic scenes rendered using randomly modulated voltage controlled synthesizers. The sequence of analogesque tracks concludes with Suk Jun Kim's structured composition *sudden cry* (1998).

Following Sylvi MacCormac's previously mentioned *Spirit Wheels*, is Kevin MacLeod's *pacific* (1998) in which pulse and percussive textures slowly fade in and out to form a dialog. *Climb to Camp One* (1989) by Diana McIntosh is a slow performance from the inside of a piano – climbing equipment is used to percuss the piano's body and excite its strings. Gritty pulse-like gestures articulate Dugal McKinnon's *Horizont im Ohr* (1998), after which Adrian Moore's *Soundbodies: Bodypart* (1998) congeals into a pulsating mass of vocal fragments, percussion and fast, syncopated melodies.

David Prior's fifth movement from *Somewhere Submarine* (1996) for piano and tape combines a paced jazz-angular piano score with long decaying resonances on tape. Jean Routhier's brief *Stereotyped Latter-Day Opinion* (1999) has it all: a throbbing beat with synth drones, glitches, and cats meowing. *B-side* (1998) by Antti Saario begins with a series of drum fills, interspersed with concrete sounds, somewhere in the middle guitar feedback becomes seagulls – in the end there's a rock-band rehearsal. Dave Solursh's *We* (1998) presents a colorful narrative of processed water, modulated noise and harsh synthesised tones. Jørgen Teller's *H a e i o u y æ å part 2* (1997) is an exercise in extreme laughter processing.

Ben Thigpen's *step, under* (1998) features some intriguing comb-like resonances, which appear to bend in pitch as the

amplitude of the excitation source changes. The cinematic *Voices Part I* (1997) by Todor Todoroff presents a subtle sequence of slow ambient resonances, punctuated at various times by voices and clunking metal. Hans Tutchku's *extrémités lointaines* (1998) combines sounds collected from south-east Asia into an interesting scene sometimes involving stretched and processed dynamic gestures. Annette Vande Gorne's *Amoroso: Vox Alia, movement 2* (1998) is a subtle wash of heavily processed singing voices – a modal character with traces of sweeping filters. Chris Wand's *to be led* (1993) presents a concise spoken text with accompaniment. Disc two concludes with Daniel Zimbaldo's intense pulsating tone mass *Au-delà du miroir*.

In summary, this is a mammoth compilation of contemporary electroacoustic music. A large number of styles are represented, and the quality of the works presented is excellent. If you want to hear what's been happening recently in electroacoustic studios around the globe, go grab yourself a copy of *PRESENCE II*.

You can listen to several excerpts from *PRESENCE II* online here:
<http://www.digital-music-archives.com/presence-ii.htm>

CALL FOR PARTICIPATION – PRESENCE III

PRESENCE III, the third self-funded double CD compilation of electroacoustic works, continues the PRESENCE series and aims to bring together an internationally derived collection of excellence in electroacoustics.

Productions électro Productions (PeP), the production wing of the CEC, will produce and disseminate a minimum of 1000 copies of a double CD, packaged with booklet and specially designed 'pochette'.

The standard rate for participation is \$1.75 US per second, (or \$105 US/minute) however there are reduced rates for CEC members and members of other national and international ea/cm associations [ACMA members pay only \$1.75 US per second - time to get that registration in! – ed]

Participation in this project guarantees composers that their work reaches hundreds of interested people and supports

the activities of the CEC on behalf of the national and international ea/cm community.

PeP will produce a double-CD package with a sleeve and English/French bilingual booklet containing biographical and program notes, similar to DISContact! II and PRESENCE I and II. See:

<http://cec.concordia.ca/CD/PRESENCE.html>
<http://cec.concordia.ca/CD/Presence II/>

[Presence II.html](#)

Works which are composed specifically for PRESENCE III will be indicated in the booklet.

PRESENCE I and II were each sent around the globe to concert producers, radio stations, educational facilities, and cultural organizations, so participation assures a very wide distribution. For PRESENCE III, 500 copies will be distributed immediately in this manner via the CEC's extensive mailing list. The remaining CD's will be used by the CEC to support its ongoing activities on behalf of the national and international ea/cm network.

Participating composers will receive 5 free copies of PRESENCE III, and additional copies at a reduced rate.

Participating composers will be required to sign a contract, permitting PeP to undertake this project on their behalf, but composers will retain full copyright so as to receive royalties for broadcast etc. The contract may be consulted and downloaded from the CEC's website:

<http://cec.concordia.ca/Files/>

[Presence III Contr.htm](#)

Depending upon composer's wishes, works may be placed on the CEC's web site to further the promotion of this project.

Intent to participate should be sent immediately to cec@vax2.concordia.ca. Inclusion will be on a first-come, first-serve basis (this will be decided by reception of the work, and signed check and contract). Production will start once both CDs are filled, but composers will be consulted regularly and notified if production is not expected to be completed 12 months from this call.

Rates for Participation

- Regular Rates \$1.75 US per second.
- Permanent Members of the CEC \$1.25 CDN per second
- ACMA Members \$1.50 US per second
- Non-Permanent CEC members and other Canadians \$1.50 CDN per second.

Works of duration of less than 3 minutes 5 seconds will be charged a flat rate, regardless of actual duration:

- Regular \$300 US
- Members of ACMA \$250 US

For Submission Guidelines and all other information, please visit:

<http://cec.concordia.ca>

DIGITAL ART, CROSS IDENTITY, AND THE INTELLIGENT STAGE IN 2001

Artist Kristian Thomas's perspective

Something strange has been happening to music and video in recent years. Let's call it audiovisual art. In November 2000 I found myself in Germany at a four-day symposia (Cross Fair 2000: <http://www.cznrw.de/>) thanks to the Australian Network for Technology and Art (<http://www.anat.org.au/>). I had arrived from Steim in Amsterdam (the world's only acclaimed interactive performing arts research center of its kind) and at the same time completing my degree in Visual arts at the South Australian School of Art.

One man sat bookishly hunched over a G4 and piano with optical sensors on each key, perusing a display of a pre-recorded video of a dancer that was projected via the piano sound through 'MAX +msp'. He was just pointing out that applied on stage, digital media has the capacity to fundamentally alter our perception of actions, thereby opening up completely new realms of creativity ... but it seems it has not yet been important to determine national and regional aesthetics (Asian influence? Pacific influence? Canadian influence?), and how the technology is being used. Is it all universal? Maybe... maybe not, it depends how you look at it and what the constraints are.

I've noticed in the electronic music scene, you have 'intelligent' lighting which can be controlled by the DMX system (like

with the Lan Box: <http://www.cds.nl/downloads/default.html>), but too few people have bothered to get it to interact with Midi and digital video software, which could make live electronic music, real-time image processing and digital lighting all under the one system. People at the symposia were aware of this no doubtably, that, this is how intelligence can be measured on new media and performance art. However, as we move on from millennium hype, there are still few places you can look to find useful paradigms of interactivity in new forms of art and entertainment. All the project proposals I've worked on in the last 3 years have been highly technology-based, since that's where development in the industry has been. "The Pseudo Sound Project" (<http://kristianthomas.jumptunes.com>) came about because I wanted to develop something that could identify my personal journey across all the Digital arts. By mid 2000 I purchased an Atomic data core (analog to midi converter) from France and began to modify a connecting break out box for sensors in a single but adjustable package for making live electronic music and video. There are many artists, particularly in Adelaide, that make spontaneous electro-type music. Ones that have had influence on me are Modular (http://au.music.yahoo.com/music/profiles/index_genre37.html), Eyespine (<http://eyespine.va.com.au/>) and Amoeba. But I have to search the whole world underground for audiovisual artists of the same nature, because it seems that all one needs to succeed in this scene is to have a group name containing colons or square brackets. Lets call it 'The technological Lemming syndrome'. The fact is, promoters here in Australia don't consider vjs or audiovisual artists as important as Djs or live musicians because they can't pull in as much money as they can...so often the scene as little identity for such a potentially huge future!

To put identity back into the work is a frustration for such an exportable culture as Australia. "How/why is it that Australia (and I guess Japan) is/seems to be so on the cutting edge of technological stuff?" (Sevanick, Chris). Iko from the Public reality adjustment Center wrote: "because they are much free'er than us Europeans, who are a bit stuck with old values regarding art blaba".

Grant Muir (aka 'MoRpH') wrote: ..."If you're talking about visuals, in Australia particularly, then it's mainly due to the fact that thanks to events like Electro Fringe 2000 (EF2K) and artist collectives like Clan Analogue, we are mostly pretty in touch with others in the field in a very face '2' face way... Also we have some world-class programmers who also happen to be performers working on software, which is being actively tested by members of the community. Australia is a great place to be involved in video, just not the best for good paying gigs..."(Grant Muir)

"...Hmm... i don't know how true these statement are.. hardly ever been out of Australia myself... but we do seem to have a rep for being pretty techy... and like iko said we have a bit of catch up to do regarding exportingour culture... like sure you know we do cool stuff... but how much Aussie content have you actually seen... unless your from the uk and have been saturated with kylie and neighbours and other commercial crap...

I suppose its partly cos we have a pretty high income per capita... but it is expensive to import equipment... so perhaps we innovate ... like the CVI... but perhaps its just cos we are loud... when we do something... we tell you. At one point we had the highest percentage Internet use on the planet... As for using it for good... well i hope so too... thankfully most video artists that i have met are pretty progressive...

Electronic music in Aus has very strong links with the environment movement... quite a few Europeans make the trek out here to get back to something real... like earthdream <http://www.angelfire.com/mt/earthdream2000/> there are also quite a few crews who make a point of having a social message like 'omhs not bombs' <http://omsnotbombs.cia.com.au/> and on the video scene 'video subvertigo' are the kings of social comentary... and creators of the brilliantly elegant Panasonic mx-10 mod... <http://chaos.org.au/subvertigo.asp> and of course the good old aussie tradition of a bush doof (trance, dub but varied)... which i suppose the reaches its climax with earthcore <http://www.earthcore.com.au/>, but i prefer the myriad of smaller, realer bush parties which are running pretty regularly all over the country... when they get too big they start to lose their way.. Though Earthcore does a good job of keeping it real.

As for some sort of reconciliation with the aboriginal people... we are getting there.... it has been slow... but especially over the last 5 years it has been at the centre of public debate.....

Most white Australians have never met an aboriginal person..... They are a very small minority... nothing like the percentage of afro Americans in the USA or west Indians in the UK... they have always been completely marginalised... and terrible autrocities have been committed against them in the past... but Australia claims to be the most multicultural nation on earth and there is a genuine opportunity for us to take big steps towards a treaty and eventually some sort of true equality... first step is get rid of our right wing government...." (Rita)

Universally, cultures have moved from content shifting to context; object to process; perspective to immersion (no standing back viewing thanks); performance to enactment (all must be involve and responsible for any outcome); reception to negotiation; representation to construction; hermeneutics to heuristics; tunnel vision to birds eye view; figure ground to pattern; paranoia to telenioa; the autonomous brain to the distributed mind; behavior of forms to forms of behavior...and so it seems "interactive art could be called a 5 fold path of connectivity, immersion, interaction, transformation and emergence, currently in a post-biological culture". (Roy Ascott)

There are many local influences for me, but internationalism is the main influence. Adelaide has a very small VJ/moving imagery art scene; Incube, Marc 3.1, Linda Saunderson, Heliograph productions, and Paul Armour are the only serious artists that I have come across as of yet. In Amsterdam At Steim I checked out some very cool technology that poses some interesting questions for the performing arts. It was both inquisitive and experimental and directly related to analyzing sensor technology for use with electronic music and video. Software developer, Frank, demonstrated what their own hand worn devices could do in relations to 'Lisa' a live sampling program for the Mac (download it at <http://www.steim.nl>). By shaking, pressing keys, moving apart or blowing on, you could alter MIDI Data and generate MIDI Data with the choice of 56 different switches between the two hand devices. For Storing and Recalling Data there was a

Sequencer on the software. Each sensor had its own unique function, for example: effected audio play back of live sampling (coming from a small microphone in this case) using a Lisa patch and a simple Ultra sonic sensor; The beauty of such an instrument is that your not just placing sensors scarcely in a room, but have a instrument that works the same every time. Some other interesting software I have come across for electronic music is "Geek Gadget" on the Linux system, "Reaktor" and "Reason" vst host plugins for either Mac OS or Windows. You can find a lot of links to music and video applications, artists and technology at <http://kristianthomas.jumptunes.com>

Technology is seen as the new frontier, but a struggle for most local artists engaging in for their sense of identity - their originality - yet one wonders whether the real maturity lies in seeing how unoriginal you really are. Not only unoriginal but not even individual! Dance music has formulated the scene so much that quite frankly, there's so much shit out there that undercuts underground artists, but I believe people will always engage with image - everyone's universe is awash in a sea of pixels. Reality diverges into red, blue, and green elements, quantized down to triplet values between 0 and 256. RGB, CMYK, PAL, NTSC, frame rate, codec, vertical and horizontal sync, resolution, filters, effects and affect, pixelization, distortion, artifacts, visual symmetry and rhythm. I am physically in front of a bank of monitors, connection through keyboard, mouse and sensors, an interface so familiar that it is almost an extension of my perception, while my mind has entered into a world of options, menus, traveling through wires to psychic places never before attainable through other media. A new space where a collective non-linear experience takes place. A space where time breaks down and diverges. But I see a lot of 'technology' based work that leaves me dead cold - in fact most does - because content will always dominate form...and the format...the current cultural climate (the publicity, marketing and press machines in particular, and the funding bodies) is so technology-obsessed, it can only leave a generation of ideas to come...fulfilling and translating those ideas and working with appropriate mediums. What we sell is cultural value.

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5. Chris Cree Brown: Iron Pebbles and Gold Dust - 12:11
6. John Rimmer: People, Power and Pollution - 7:40
7. Matthew Suttor: He Gives What He Likes - 11:07
8. Lisa Meridan-Skipp: Blaze - 6.31
9. Dugal McKinnon: Horizont im Ohr -10:04

Reviewer Jack Body (Music in New Zealand no38. p60) describes this as:

"...an ear-tingling, brain-scrambling taste of the current state of New Zealand electroacoustic composition... it continues to stimulate my listening and thinking. There is so much variety here, and so much technical brilliance..."

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SONIC RESIDUES 02

Australian Centre for Contemporary Art,
Melbourne, Australia.
November 17 - December 2 2000.

Reviewed by Ian Stevenson
Sydney, Australia

Sonic Residues 02, curated by Garth Paine, was a two week celebration of electro acoustic music and sound art held at the Australian Centre for Contemporary Art (ACCA) in Melbourne. ACCA is one of Australia's premiere venues for the presentation of contemporary art. During the two weeks, in addition to being the exhibition space for a changing program of sound art installations, ACCA was transformed into a venue for the concert presentation of a wide range of electro acoustic, electronic and acousmatic music. Two forums were also conducted during the festival. The first, a presentation concerning various issues surrounding spatialisation, and the second forum taking the form of a panel discussion centered around the issues arising from the perceived tensions and shared influences of popularly based sound and music performance art practice on the one hand, and more academically based creative fields in sonic art on the other.

Following an international call for works for both installation pieces and concert works in the electro-acoustic genre, Garth Paine put together a festival program of exceptional variety and quality. The call for works set the tone for the festival in that it made no clear differentiation between creative activity in the forms of installation art or musical composition. The original call for works introduced the two principal categories of "Evolutionary Pieces" and "Works of Finite Duration" that would reflect the four following themes: "works generated from text or voice-based material; works that use found sounds, molded to create new sonic worlds that extend our notions of acoustic reality; works that use exclusively electronically generated sounds; and interactive works that allow the audience to physically engage with the work through movement and behavior, to create and/or experience the multi-faceted sound world of the work itself." This created the frame work for the ensuing two-week festival. I assisted Garth in preparing the concert program, and specifying and operating the multi-

channel diffusion system used for the concerts.

The Australian Centre for Contemporary Art is housed in the historic former home of the Colonial Lieutenant-Governor - La Trobe, within Melbourne's Domain Gardens. The festival opened with seven sound art installations distributed throughout the gallery's four rooms, the entry foyer and the garden at the rear of the gallery. These installations were open to the public during gallery hours throughout the first week of the festival. A second set of installation works were presented during the second week of the festival. The range of installation works reflected the broad and inclusive nature of the festival programming.

During the first week the sound installation works included a piece by Melbourne based experimental musician and sound designer Nat Bates entitled *Sonorhythmosis*. This piece occupied the entry foyer of the gallery. The installation took the form of an arcade video game complete with joystick, buttons within an authentic arcade game console. The work was thoroughly interactive, inviting the participant to play with the abstract graphical objects, via the user interface described above. Through a process of clicking and dragging the user is able to modify and navigate through a symbolic landscape comprising a number of colored circles. The game provides visual and audible feedback describing the path or trajectory through a continuously variable mix of the pulsing or looping sounds associated with each object, the level of each sound being proportional to the user's proximity to its associated object on the screen. By modifying the positions of each of these 'sonic objects' the user can adapt the sonic density of the symbolic landscape to suit their preference. Despite the limited range of physical control and the unrelenting looping sounds of the installation when at rest, the work provided considerable amusement and fascination for visitors unprepared for the re-purposing of an arcade game within a gallery context.

Gallery 1 at the rear of the building housed an installation work by myself entitled *Soniferous Objects*. This installation comprises five objects presented on plinths. The objects included an electro-mechanical adding machine, an old Bakelite radio, a suitcase, a metal cooking pot, and a small wooden file drawer. Each object produced

a gentle sound track reproduced by hidden transducers within the objects. Some of the sounds were heard at a level not significantly above the ambient sound level within the gallery leading some listeners to wonder which sounds belonged to the installation and which sounds found their origins elsewhere. Hopefully viewers found links between the visual and sonic elements within the installation which triggered their imagination and encouraged them to question certain aspects of their spatial awareness which they may have previously taken for granted.

Sharing the space of Gallery 1 was a work by Melbourne new media artist Chris Henschke. The work was entitled *Corroded Grooves*. This interactive installation was composed of a mouse and monitor - computer interface, a number of record turntables (remember those?), an audio mixer, and a number of objects to play on the turntables. These objects included an old and damaged 78 record, an equally decayed cymbal, various discs of paper and other items. The computer monitor displayed a beautifully designed, archaic looking circuit arrangement which could be modified to play and mix different audio loops. These loops could be mixed with the sounds produced by the various physical objects when played on the turntables. Not having any experience as a DJ myself, I can only imagine this installation as being similar to the image in the mind of a DJ when waking in a cold sweat from the terror of a nightmare. Chris further expanded on the frightening possibilities of this work during a performance in which he improvised with this setup. The climax of the performance came when, throwing caution to the wind, a turntable was set alight and the audience was treated to the unique sound of burning vinyl at 33 $\frac{1}{3}$ RPM.

Gallery 2 housed a video projector and a Tannoy 5.1 surround, home cinema speaker system. During the first week of the festival a video work by Sydney composer and performer Donna Hewitt, entitled *Peep Show* was shown. This piece engaged with the 'gaze' directed to the female performer. The work comprised startling endoscopic images of the vocal tract with synchronized audible vocalizations, and processed audio material from interviews with various female performers. The work deals with subject positions and relationships of power within the culture of popular music performance.

The images and text alluded to the seen/unseen, real/imagined, felt/unfelt aspects of the audience/performer experience within this context. The transformations within these bipolar axes were mirrored by the transformations of sound and image within the work.

Gallery 3 contained a delicate and detailed installation work by well known Australian artist and composer Ros Bandt. This piece entitled *Speak before it's too late* deals with the historical sociolinguistic aspects of Australian indigenous, colonial and immigrant culture. The work is presented as six large amphorae-like ceramic jars fitted with loudspeakers, within a room strewn with red-gum eucalyptus leaves. The leaves evoke the ancient Australian landscape, while the amphorae provide the image of ancient cultures, transportation, trade, and the resultant dissemination and dilution of culture. The layout of these elements enables the listener to move around within this spatially complex multi-channel sound-field. The sound material itself comprises natural atmospheres of ocean, bush-land and other environments providing context for the voice recordings in various languages both ancient and modern. These shifting monologues narrate the experiences of possession and dispossession of land and language of the various speakers. Languages represented include English, Polish, ancient Greek and Latin, and the indigenous Yorta Yorta and Barkindji languages. The work created a subtly crafted spatial composition which rewarded the extended attention of the listener. Intrinsic sonic and visual properties and extrinsic cultural and political relationships were seamless integrated within this engaging piece.

The hallway area known as gallery 4 housed North American artist, Peter Chamberlain's whimsical work entitled *San Rin Sha*. These sculptural assemblages composed of found objects combined in a seemingly aleatoric fashion, were unified by their overall form and the integral inclusion of the mechanisms from valve metronomes. Their rich visual appeal was supported by the gentle tick-tock of the wooden resonator/transducers within each piece. After close inspection it was revealed that each piece included a wooden skateboard on which was mounted, variously, a ceramic armadillo; a white china laughing Buddha; and a fencing mask. These items were integrated with the components of the

metronomes. Reminiscent of Picasso's sculptural assemblages, these delightful objects added the sonic signals marking of the passage of time, in time signatures and tempos continuously variable through the adjustment of the integrated control knobs.

The glorious late Spring weather in Melbourne was best appreciated while perambulating through the delightful rose garden adjoining the gallery. The garden to the rear of the gallery was the site for an intriguing multi-channel environmental installation by American composer Ken Steen. This work entitled *(h)Earscaping* was presented on eight loudspeakers hidden within the shrubbery forming the boundary of the garden. The listener's attention was held and diverted by the intrusion into the natural soundscape of the sometimes organic, sometimes synthetic sonic elements of the piece. This work stimulated continual confusion of the perception of the audible scene. Due to the wide spatial field of the speaker system and the imposition of the natural garden acoustics on the electro-acoustic material, the composition often fell seamlessly into the composite soundscape – 'Was that the barking of a frog in the undergrowth? Are those sounds insects?'. I wondered if the vocal profusion of bird-life in the garden was the usual state of affairs or whether they had come to investigate and converse with Ken's music. The continually evolving material gave great exercise to the ears and thoroughly enhanced the aesthetic appreciation of a lovely garden environment.

The opening of the festival coincided with the first of seven concerts presented in gallery 1. The festival concert program comprised over sixty works in various genres from all over the world. In order to facilitate the presentation of such a wide range of electro-acoustic work we adopted a uniform reproduction system for each concert. In this respect we were lucky to have the support of System Sound Pty. Ltd., who are one of Australia's most highly respected sound contractors and design firms. System Sound furnished the festival with an eight channel Tannoy speaker system with associated control, replay and mixing equipment. A significant aspect of System Sounds generous support was the sponsorship of a number of composers' work developing multi-channel diffusions of their pieces using the Richmond Sound

Design AudioBox and Third Monk's ABControl software.

Concert 1 included a number of the highlights from the concert series. The festival was opened with a virtuosic performance by Brigid Burke of her piece for tape, live electronics and bass clarinet - *Laughing Blossoms*. Also included in the program were Trevor Wishart's arresting sonic artwork - *Two Women*; Elsa Justel's *Au Loin ...Bleu*; Warren Burt's *Five Tango Permutations*, employing the aleatoric manipulation of text and vocalizations; John Young's *Sju*, another piece dealing with language and vocal expression; *G4* by Paul Doornbusch; Pete Stollery's *Altered Images*; and finally Natasha Barrett's *Viva La Selva*. This final piece is a distillation of a longer work comprising recordings made in the forests of Costa Rica – this beautifully crafted piece affords a fascinating musical experience.

The approach we took to diffusion of the stereo works was to seek the guidance of the composers where possible and otherwise to be guided by the musical style, which sometimes seemed to dictate static two channel/stereo playback, or to be influenced by the rhythm, dynamics and gestural contours of the musical material. Usually the left/right stereo sound field was preserved while expanding the sound out into the audience.

The second concert, presented on the Saturday night once again included a variety of pieces. Previously mentioned was Chris Henschke's improvised performance on his *Corroded Grooves* turntable and computer installation, culminating in the immolation of a long playing vinyl disc under the needle. Other pieces included Paul Rudy's now popular piece for tape and cactus (performed by myself) entitled *Degrees of Separation "Grandchild of Tree"*; and a delightful acousmatic work by Hideko Kawamoto – *Night Ascends from the Ear like a Butterfly*.

On the Wednesday of the first week I presented a discussion on various aspects of music diffusion. This included a rather crazy conceptual history of the cultural influences brought to bear on Western spatial perception. I attempted to integrate this with a review of some of the theoretical aspects of electro-acoustic reproduction systems and finally demonstrate the systems we were using for concert presentation, including the benefits of

computer controlled diffusion implemented on the Richmond Sound Design AudioBox.

Concert 3 on the following Friday gave the audience the opportunity to hear the fruits of a multi-channel diffusion developed on the AudioBox. This was Australian composer Paul Doornbusch's piece *Continuity One*. This is a work in the true computer music tradition dealing with processes of enthalpy and entropy, continuity and disturbance. The automated diffusion achieved dynamic spatial effects that could never have been achieved through manual performance.

The final concert of week one included Benjamin Thigpen's piece *step, under*. This piece was performed in the composer's original 8 channel diffusion from multi-track tape.

During the second week of the festival a number of new installation works were presented. The foyer area became the site for UK artist Robert Rowlands' computer based audio-visual work *Moments and Movements*. Gallery 1 housed *2000 Bars* by Melbourne composer John Arthur Grant, this work invited the audience to play along with the pre-recorded material on an electronic keyboard or a bamboo percussion instrument. In Gallery 2 a compilation of video/sound works was presented. These works included *concept comp.tot 4* by Renate Oblak and Michael Pinter; *Residue* by Dennis H Miller; and Kim Cascone's *Residualism*.

One of the festival's primary objectives was to help support, stimulate and maintain the sense of community amongst practitioners and enthusiasts in the field of sonic art practice. The inclusive nature of the programming was one way of bringing together the diverse and sometimes alienated strands of this community. Another approach to this process, demonstrated by the Sonic Residues festival, was to confront the perceived divisions within the community head on. To this end, Garth Paine chaired a panel discussion addressing the issues surrounding tensions between those engaged in academic or institutionalized practice and those working in the popular domain of sonic art or electronic music. Included on the panel were Ros Bandt, Philip Brophy, Jeff Pressing, David Hurst, Paul Doornbusch, and Nat Bates. Each of these individuals brought their own perspective to bear on the debate. David

Hurst discussed the marginalised nature of academic activity in Australia's impoverished political climate. Ros Bandt and Paul Doornbusch both defended rigorous aesthetic standards in sonic arts practice while Philip Brophy attempted to convince the audience that a post-modern view must be open to novelty and not be deceived by illusory divisions within a continuum of cultural flux. Jeff Pressing presented a discussion of the sociopolitical relevance of anarchic and experimental practice. Unfortunately, the debate never became heated and while a representative range of positions were presented and common ground identified it is hard to say whether any changes in attitude resulted from the process. The forum did however, provide an opportunity for both audience and panel members from diverse backgrounds to meet and exchange points of view.

The festival continued with three more concerts. These included many fine works for tape not previously heard in Australia. Of particular note were the works spatialised by the composers on the AudioBox. These included *acca_bunker.mod* by Délire, and Ros Bandt's *Serendipity*. Garth Paine performed a live diffusion of his fascinating new work *Incarinate - lose for dreams*. Also of particular interest were live performances by Ros Bandt, involving Grainger air whistle, viola da gamba, medieval psaltery and tape with live diffusion; the mesmeric work *Regenerative/Generative* for multiple computers, video and violin by Andrew Garton, Ollie Olsen, John Powers and Justina Curtis; and a rhythmic improvisation by Nat Bates entitled *ALCHEMY*.

The festival achieved an enthusiastic audience attendance of over 1700 people during the two weeks and provided a much needed platform for the presentation of such a diverse range of sonic arts practice. This diversity and the elimination of rigid barriers between art gallery installation practice and concert hall musical performance has helped to redefine what sonic art is and can be within the Australian context. The festival has left behind a resonating residue in the minds of all who attended and we all look forward to Sonic Residues 03 with great anticipation. See <http://www.activatedspace.com.au/SonicResidues/SonicRes02/index.html>

for the full curators, concert and installation program notes.