

Conference review by Alan Dorin (co-chair).

First Iteration: *a conference on generative systems in the electronic arts.*

1st-3rd December, 1999, Monash University, Melbourne, Australia.

The First Iteration conference emerged from a perceived need to focus on the creative aspects of generating and manipulating *processes* specifically for the creation of new art works. Existing conferences on the electronic arts seemed to focus on either the technical aspects of writing software (or building hardware) for the production of works of art, or on the aesthetics of art production. First Iteration was intended instead as an avenue to explore the work and ideas of individuals who are proficient in *both* technical and aesthetic matters. These artists are in the unique position of being able to construct and manipulate processes for aesthetic purposes.

The First Iteration opening included a performance of Cornelius Cardew's, *Paragraph 7 – The Great Learning*. This piece fitted neatly into the conference's scope—it is music which *emerges* from the interaction of a collection of singers individually following an algorithm laid down by the composer. Each performer sings a line of text (from Confucius) at a pitch which they can hear being sung by one of their neighbours in the choir. Alternatively the singer may choose to sing the line of text at a random pitch. After each breath (the length of a breath is determined by the individual singers, it is not specified in the score) a singer selects a new pitch. At times the piece sounds exactly as one might imagine—a jumble of voices! At other times however sections of peaceful order develop. These are occasionally broken by randomly selected notes—which might trigger a series of copy-cat notes, or might be swallowed back into the general drone. A novel piece, and one whose many moods reflected the timbre of the conference as a whole.

The conference enjoyed three keynote speeches. The first of these was given by local computer-music composer Alistair Riddell, who spoke about the emergence of a culture surrounding the treatment of music as data. Kurt Fleischer from the Pixar animation studio U.S.A., discussed technical aspects of writing animation software tools for artists. Thirdly, James McCartney discussed the workings of *SuperCollider*, his language for audio synthesis. In addition, speakers from Europe, U.S.A. and the Asia-Pacific region presented their work to an enthusiastic and diverse crowd of tech-heads, artists, curators, theorists and many who are interested and active participants in all of these unnecessarily segregated fields.

Some indication of the diversity of views held by conference attendees was made plain when a heated debate developed between the members of a panel entitled, “Novel Futures: Evolution as Process” and members of the audience. This debate centered around the question of whether or not a mathematical formula existed for all time, independently of it being ‘discovered’ or whether mathematics was a social construct, specific only to a particular (sub-)culture at a particular time in its development. The passions which this debate raised were terrific. Debate continued during the breaks and at the conference dinner. This was just the kind of enthusiasm which I felt gave First Iteration its dynamism.

The gallery exhibition *Process Philosophies*, included a number of works located indoors in two main galleries, in the outdoor courtyard and in the foyer space of the light-filled Art and Design building of Monash. The works included Paul Brown's *Sandlines*, which presented the observer with a continuously transforming network of paths which shifted according to the patterns determined by an underlying cellular automata. The soft-toy embellished, ever-clinking *Installation for Three Laptops (Remembering Kenneth's Lemons)* created by Warren Burt worked on similar local neighbourhood rules to produce global six-channel compositions. The laptops were connected in a closed loop and passed instructions between one another influencing locally

maintained counters. These in turn determined which musical events were generated by the machines.

As well as the works in the gallery and foyer itself, one could hear the unique cries and gasps from the installation by David Chesworth & Sonia Leber entitled *Segment from 5000 Calls*. This was positioned in four channel surround around the outdoor courtyard. The work involved the laborious recording and editing of 5000 human vocalizations associated with physical activity... including some grunts and groans and shouts from what sounded like a local football match (adding to the Australian flavour). *5000 Calls* is intended as an enormous public installation to be installed around the Olympic Stadium in Sydney. The vocalizations and their locations and timings are controlled by software enabling them to react with one another, thereby making each visit to the installation a unique experience.

Some other works in the exhibition included the swishing and seething of Karlheinz Essl's *fLow*, (which alternated morning/afternoon with *5000 Calls* in the courtyard), the environmental sounds rendered in washes and splashes of colour by student Paul Harrison (*Synaesthesia*), as well as the works of Troy Innocent (*Sound Form*), the New Zealanders Yeoh Guan Hong & Yulius (*H.E.A.R.T. of Stone*) and more. The lively space of the exhibition foyer was filled with an aural atmosphere unlike any other as all of these works intermingled... the perfect backdrop to the chatter of participants wandering to and from the tea-room between sessions.

For the First Iteration video programme, attendees and members of the public packed into a cosy theatre (on a hot summer's evening – and boy was the bio-box a sauna!) to watch a variety of works from around the world. As well as the computer animation retrospective of Karl Sims (which included the adventures of the classic inter-galactic, rocket-launched almond in *Panspermia*, and his gorgeous, sometimes comical *Virtual Creatures*), some more unusual works were shown. These included pioneering footage of (and by) John Whitney displayed on an ancient 16mm cine-projector: *Experiment in Motion Graphics* reveals his prophetic visions of a future where computer graphics workstations would comfortably sit on a desktop (rather than filling an entire room); *Permutations* a hypnotic, playful dance of rhythm and line.

Another inclusion of note was the abstract work *Blue Man* from Jonathan McCabe of ANU. McCabe's software gives the viewer a feeling like that experienced by gazing directly at the crossing of waves and ripples which travel gently over life-filled rock pools. A dizzying wash of intricate organic colours and forms. In contrast to this was the unsettling video piece by Austrian artists Granular~Synthesis. *Sweetheart* exhibited a woman's head which flicked, twitched and kicked as if it were running on internal servo-motors in need of servicing. Other works in the programme included a mini-documentary on Scott Draves' *Bomb* cellular automata software, the peaceful flocking of *Blue In The Bluebird* by Jen Seevinck, and the synthesized ornamental flourishes generated by Gavin Miller in his work *Rondeau*.

The music event included works by several of the conference presenters and other pieces which had been accepted for performance. Italian composer Agostino Di Scipio's *Natura Allo Specchio*, expanded into the open space of the Monash performing arts theatre, filling it with deep rumbles, whispers, percussive clicks and synthesized chirps. Agostino discussed his synthesis method in the paper he gave earlier: *Iterated Non-Linear Functions as a Sound Generating Engine*. Hideko Kawamoto's carefully crafted *Night Ascends from the Ear Like a Butterfly* (which has since won her considerable international acclaim – we played it first!) glittered and fluttered about the sky like its name would suggest. Jo Thomas from the U.K. contributed a "sound animation" *Wolfi*, telling the story of Little Red Riding Hood in around a minute—complete with the scream of grandmother (or was it the wolf being eaten by Red Riding hood?)! A piece by local musician

Steve Law, *Maximum Incontinence*, left us in no doubt about the source of its raw material. Yet a wonderful transformation of the sound took place, bringing with it a submarine world of bubbles, buzzes and shifting rhythms... just the introduction needed to bring the listener to the start of the *Steamland* journey provided by Perl (the programming language), convolution filtering, and the expertise of Alistair Riddell.

The performance programme also included an improvisation for music, dance and lights. *Matiere En Mouvement* was created and performed by the French dancer and composer Claire Laronde, ably assisted by Ross "Audio Mulch" Bencina on the desk. The sparse stage, stark lighting and choreography which moved between extremes of strength and timidity, was set to delicately constructed music which traversed similarly variable territory. A captivating and corporeal finale to the evening.

For those keen to learn more, two practical workshops were also organized. One of these, on algorithms for generative computer graphics, was given by yours-truly. We examined flocking, cellular automata, L-systems, artificial evolution and various other topics at a superficial level. But the participants seemed to derive the most pleasure from playing with the sample software rather than listening to me babble on about algorithms. Quite understandable!

The other workshop was an informal introduction to James McCartney's *SuperCollider* audio-synthesis language. James demonstrated his software and gave the participants a chance to explore its potential. I sat in on this workshop and emerged somewhat bamboozled by the sophistication of the tool. Why on earth would anyone (such as myself) wish to invest money in hardware synthesizers when for a fraction of the price one could have SuperCollider? I answered this (to my satisfaction) when after a hard day's conference organizing I went home, sat down, fired up a synth and started twiddling knobs... something which gives instant gratification and does not require one to cut yet your more code! A relief.

The First Iteration conference provided an excellent opportunity for like-minded and unlike-minded individuals from around the world to gather and share ideas, present their work and receive feedback from an appreciative and knowledgeable audience. The diversity of material presented at the event and the different backgrounds of the participants made First Iteration a great pleasure to have been involved with. The focus of the conference was quite specific, it was therefore rewarding to see such a good turn-out of presenters (particularly those from overseas) and audience members. The local support for the event was also strong and I look forward to seeing you all (again or for the first time) at Second Iteration in 2001... check the web site for details!

* Copies of the conference proceedings book, the CD-ROM 'D' (containing software, images, papers, sound and music samples) and the audio CD 'A' (containing the entire musical performance programme and additional compositions) are available for sale from the conference web site or by contacting the organizers via email.

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