While the notion of an art of sound continues to be puzzling for many who have not yet stumbled into programs like The Listening Room, or its community radio equivalents, and those perhaps who have more frequently found themselves in galleries listening to sounds instead of staring at the walls, it might be instructive to draw up some kind of topology for Australian sound art and its connections with Australian broadcasting.

A recent competition, Sound Art Australia 91, sponsored by West German Radio, Cologne and ABC Radio Sydney, through its two acoustic art programs The Listening Room and Studio Akustischer Kunst, elicited some 40 entries from “Sound Artists” around Australia, attesting to the fact that there is a pool of artists claiming electronic radio space as a venue for their endeavours in the art of sound, be they purely linguistic, sonic constructions, acoustic collages, polyphonic, poetic tone compositions, sound sculptures, sound installations or multi-media audio performances.

One almost serendipitous precursor to Australian acoustic art can still be heard in the famous test cricket broadcasts transmitted by The Australian Broadcasting Commission in the early days of radio in 1934, 36, 38. Now known as The Synthetic Cricket (There is only one remaining recording of this broadcast, preserved on film shot in 1938 to promote the event), these amusing but remarkable broadcasts featured an Australian cricket commentator, not in England observing the match, but in a radio studio in Sydney. His description of the game was based on a continuous sequence of cablegrams sent from England outlining each play of the ball. The sounds of the game were created ball by ball in the studio by the commentator and a sound effects operator. Considering the epic duration of the game, (2 or 3 days), this equally epic broadcast, invented to overcome the problem of reduced short-wave transmission at the outbreak of war, was possibly the first transmission in a crude form of acoustic art heard in Australia, as well as being an interesting early example of how a text might be turned instantaneously into sound in a radio studio.

One quality that makes it typically Australian is its need to overcome the tyrannies of distance and isolation, and the impromptu nature of the solution to this problem. This sense of “making do” with the materials available still characterises much of the work of sound artists working in Australia today.

Take for example the very witty Heath Robinson, self-playing sound machines of Ernie Althof, rotating mobiles, powered usually by portable phonograms, (with their inherent reference to recording and replaying techniques) causing various objects to sound in semi random percussion. Played in symphony with each other a group of machines could be seen as a crude form of multi-tracking. Ernie Althof’s machines are almost inconceivable without reference to the pioneering work in sound making pursued by the experimental Australian composer Percy Grainger.

Grainger began articulating his ideas about a “Free Music” in the 1930s. He expounded the notion of continuously flowing, gliding sounds, conveyed directly from the composer to the listener by way of machines, without the mediation of human performance. They were the kind of sounds, which the composer had imagined when contemplating aspects of the Australian land/soundscape, in particular the rolling hills of Adelaide, the sound of water lapping in a Melbourne lake and above all the sound of the wind as it howled through telegraph wires in the Australian outback.

Percy Grainger collaborated with the American scientist and musician Burnett Cross in the 1950s, to produce a number of machines to realise his ideas of a free music. His famous Kangaroo-Pouch-Flying-Disc-Paper-Graph-Mode-Machine, a device that fed contoured, cardboard outlines of various sets of sounds through mechanical tracking devices that controlled a number of valve oscillators, still resides in The Grainger museum in Melbourne. Built originally at Graiger’s studio/house at White Plains New York, the machine can no longer be played, and the only recording made of it was by Cross on acetate discs with a portable phonograh. Grainger was aware of the advances being made in electronic and synthesised sounds, but stubbornly stuck to his machines, which for the most part were mechanical and constructed out of all sorts of found materials scavenged from the neighbourhood in White Plains.

Grainger would no doubt have found the wire music of Perth sound artist Allan Lamb intruiging. Lamb’s multi-channelled compositions of the sounds of telegraph wires, activated mostly by the wind, but also by a many other forces, such as birds, insects and the general structure of the poles, wires and insulators, eerily recall Grainger’s fascination. Turning the very landscape itself into both instrument and studio, Allan Lamb’s recordings of abandonned telegraph wires in the Australian outback have found resonances with a number of other sound and visual artists. In the cross media work Skysong, the idea of wires, string, wind and air was explored in a number of patterns. Dancers created movement and sounds (air dancing) with materials and whirling instruments, to Lamb’s elaborate aeolian wire compositions, while other combinations of the wires with the strings of harmonically accompanied cello bowing and vocal resonances were explored by Sarah Hopkins.

Grainger began his first formal studies at the Frankfurt Hoch Konervatorium in Germany in 1890s at about the same time as the Australian poet Christopher Brennan began his studies in philosophy at Berlin University. It was in Berlin that he became interested in the French symbolist poets, in particular Mallarme, and it was here that he decided to become a poet himself. Unlike Grainger, Brennan returned to live in Australia and began a correspondence with Mallarme. His prose-verse-poster “Algebraic-Symbolico-Riddle” or Musicoopematagraphoscope, a contrapuntal poem for 8 voices and “no audience” has a clear similarity with Mallarmé’s Un Coup de Des... and what we now call concrete poetry. By “no audience” Brennan might well have envisaged a tape realisation, or radio broadcast. and by no audience Brennan was
bestowing his own slap in the face of public taste. Accused of showing little concern for his readership, Brennan's riddle reveals that he didn't give a damn if the public were interested or not. Besides, he said, "they return the compliment". The work has been realised for computer generated voices by the poet Chris Mann.

Experimental literature, the building of sound making machines, the influence of the Australian land/sound/scape, combinations of these, music and sound, music and text, text and sound etc, the resolution of conditions imposed by distance and isolation via the radio - these are some of the ingredients of current sound-art practice in Australia. Contemporary visual and literary arts were able to develop extensively through the 30s 40s and 50s in Australia, but it was not until the influence of the tape recorder and the invention of the long playing record, together with an influx of conceptual ideas from the 60s avant garde in Europe and America that such developments began to be discussed and heard on the radio here.

One artist influential in the development of such ideas was David Ahern. As a promising young composer David studied in the 60s with Stockhausen and later with Cornelius Cardew in England. In the early 70s he was at the centre of a group of artists and musicians introducing radical ideas in sound to the Sydney public. His free classes at the New South Wales Conservatorium of Music, which he called "The Laboratory of the Creative Ear" provided a theoretical and practical background for many artists practising sound- art today. David was also employed for a while at the ABC where he produced talks and discussions about avant garde music as well as his own original sound-works. One such work was the composition "Journal", composed to celebrate the bi-centennial of Cook's landfall in Australia. It was entered by The ABC in the 1969 Prix Italia. "Journal", was based on selected passages of Captain James Cook's journal. The readings of the text are transformed by various signal processors in an extended live electronic improvisation. The work was produced and broadcast in stereo by transmitting the two channels on separate AM networks simultaneously. (Stereo FM broadcasting did not begin in Australia until 1975).

The early 70s also saw the arrival in Australia of the environmental musician Bill Fontana. His impact in developing an acoustic consciousness among broadcasters and sound artists was considerable. His work in the relocation of ambient sounds coincided with a renewed awareness of the Australian soundscape and the possibility of using this material in acoustic art. What many visual artists had been doing for a long time now began to be etched out in sound and was heard over the radio for the first time. A whole repertoire of sound-works, sound-sculptures, soundscapes and sound compositions began to appear in galleries and in recordings as well as on the radio.

At the same time composer/performer/sound artist Ros Bandt, was also beginning her exploration of acoustic spaces (the wheat silo and water tank projects) and developed her interest in the creation of sounding sculptures and sound installations such as the Aeolian harps at Redcliffs Mildura and the large scale outdoor sound installation in an abandoned quarry, which had been used as a dumping ground. The objects she found most interesting in this quarry were a group of abandoned old fashioned petrol bowser which were memorialised in form and sound in this cemetery of dead machines. For "Mungo", her work for Sound Art Australia 91, she took her pentatonically tuned aeolian harp into the sand dunes of Lake Mungo and there let the winds that have for thousands of years built up the sand and mud formations there play on its strings. She collected materials from the site for producing sound: leaves, sand, fossilised shells, bones, and constructed her piece in the studio around selected recordings of the harp in its many sonic moods with these as instruments.

One of the first sound-sculptures to be broadcast on radio was Bill Fontana's multichannel soundsculpture "Kiribilli Wharf". This piece established the basic tenets of his work which years later were echoed in "Acoustic Views", installed at the NSW Art Gallery for the Sydney Biennale 1988 and broadcast on ABC Radio. Works like "Acoustic Views" and Cologne-San Francisco Ear Bridge are large in scale and deal with macro sound elements often relocated across vast distances. These massive installations rely on the already existing telecommunication networks (mostly the telephone for locally based designs, but also FM links and even satellites for international sampling and relocation of sounds). A set of live sounds are collected by whatever network is appropriate and are transported to the site of the installation for relocation there. The sounds are selected on a basis of musical quality, frequency, rhythm, and the very site specific nature of their origin. Juxtaposed with dissimilar sounds from other locations, they create new constellations, moments of extraordinary juxtaposition, a redefinition of those once familiar sounds in their new context. Apart from their site specific sculptural manifestations the works also receive radio transmissions live to air with the composer mixing the multiple sources in a sequence of his own devising.

However Bill Fontana's first experimental broadcast in this technique, which took place in Australia in 1976 on ABC FM, was completely different in scale to the multi-channelled city portraits and bridge musics. "Music From Ordinary Objects" was a real-time, phone-in sound composition for tape loops and public telephone system. Listeners were invited to phone the radio station and play the "instrument" of their choice into the phone set. This "instrument" was to be any ordinary object found around the house which could be manipulated in some way to produce a sound. These sounds were processed and organised into tape-loops as they arrived at the radio station and were composed into continuous, overlapping strands of sound for the duration of the broadcast, thus extending in the country fashion the concept of John Cage's composition "Living Room Music" to a networked performance from many living rooms via the radio studio mixing desk and telephone system.

The assembling of a large number of voices is one of the interests of radio artist Paul Charlier. "Remembrance Day", his montage of archival sounds and voices constitutes a poly-vocal anniversary of symbolic moments recalled publically in the media. "Remembrance Day" was produced before the large-scale, Australian Bi-centennial celebrations in 1988. It includes a commemoration of the events of the 11th day of the 11th month of 1945 (Armistice Day), also the day in 1975 when the Whitlam Labor Government was dismissed by the Governor General.
The media coverage of this event was the subject of a radio work by John Scott and Robert Moore, two former lecturers in media studies at the Swinburne Institute of Technology who developed a body of work that deconstructs the radio medium, largely through the technique of collage. Their sound collage “11/11/75” demonstrates how the reportage of serious events is trivialised by its positioning within the structure of commercial broadcasting.

On another day of commemoration, Australia Day 1986, the poet Chris Mann created a 4-channel mix of a set of 17th and 18th century texts which speculated on the existence of an Australian continent. These were Jonathan Swift’s “Gulliver’s Travels”, Daniel Defoe’s “Robinson Crusoe” and English playwright Richard Broome’s “The Antipodes”. The 4th text was William Dampier’s journal from his charting of the West Australian coast. The texts were read, not by professional actors, but by leading figures from some of the country’s better known radical and conservative lobby groups: -a trade union official, a leader of an ex-servicemen’s league and a fashion photographer. The play was performed by ABC announcers, each reading their parts in isolation, the final version being a splicing together of their various performances. The “Quadrophonic Cocktail”, as it was called, was broadcast via the 4 channels of the ABC’s combined Metropolitan, National and Fine Music networks on Australia Day, January 26th 1986. The audience was invited to “mix your own audio adventure”.

Chris Mann is a poet/musician whose written works have been compared by John Cage to the work of James Joyce, although Mann’s concerns are the construction of meaning through standardised grammar and the emergence of vernacular meanings through slang. His texts, which can be read like musical scores, constantly play philosophical argument against vernacular usage as expressed in slang, jargon, argot, creoles etc. He creates dense poly-compressions of meanings in a language construct of his own “speaking” and further fractures standard meaning through forms of electronic manipulation mostly in collaboration with musicians like Warren Burt.

Mann and Burt have a long history of interactive works, with Burt providing electronic/musical manipulations of Mann’s performances, based on his understandings of the particular sound/linguistic/semantic concerns inherent in Mann’s texts and Mann’s desire to further bend his already dense sonic performances.

Over the past decade a group of highly individual artists, working in the medium of sound, either in performance or studio, has been developing a body individualistic work, (local, personal, socio-political). At the same time however an interesting sub-culture or network of concerns has simultaneously been developing that in no way subverts their practice as isolated artists. A kind of cross hatching or overlaying of various media and concerns has been occurring, where various artists collaborate in the co-presentation of individual work. The main groupings within this network are on the one hand the text and performance based artists and on the other the music and sound based artists, and their cross fertilising and frequent interaction brings about a variety of new and surprising constellations, particularly when other art practices are engaged, such as the interaction between sound artists and those working in theatre, dance, video, photography and sculpture.

Typical of the loosely knit collection of ideas, styles and techniques was the radio work instigated by Warren Burt Words and Sounds in the Australian Landscape This was a 2 hour broadcast of original work by five Melbourne based sound composers on a recurring theme in all areas of Australian art. This, being a bi-centennial project, was in no way a celebration, based as it was on recordings of various Australian urban, rural and widerness environments, and incorporating music, language and poetry in interaction with these environments. Of the collaborators, Burt and Gilbert are predominantly musicians, Walter Billetter and Chris Hemensley experimental writers, while Mann is a poet and writer who regards his work as composition, since he explores the texture of the Australian vernacular with a sure ear for colour, pitch, intonation and gesture.

Another performance poet who has worked in collaboration with Warren Burt is Amanda Stewart. In a work called simply Collaboration Burt as musician-composer attempted to extract a music from Stewart’s already powerful sonic performance contours. By sampling her reading Burt was able to arrange a set of trigger mechanisms that would enable Stewart to “ghost” herself. If she could learn the mechanism by which her voice print is tripped, she can control her own input and hence the output of the system. In a sense she can provide her own musical accompaniment, one which is provided in any case by the system Burt has devised, and which he himself has derived from various patterns in her performance practice.

The composer /sound sculptor Les Gilbert has also been developing developing large scale interactive walk-through sound environments, in which infra red detectors monitor the volume of people walking through the installation and the density of this traffic triggers a computer program that directly effects volume, sequence and frequency of sound events. A single visitor can run the gammit of the entire installation, be given particular environments, depending on location, but can also be followed around by certain sounds that are central to the installation.

Gilbert’s work is frequently heard these days with the “post colonial” collages of Paul Carter, who has also been developing his own body of radiophonic texts for performance. Many of these interrogate the notion of memory and its failure to recapture lost pasts. They deal with the spacial distribution of voice, and how this has been neglected historically, but can be artistically recovered using techniques of collage and sound installation. His texts have recently tended towards polylingual, radiophonic works, in which the voice carries all the sonic signs and semantic meanings that the piece requires. They poetically invoke first-contact creoles, a lingua franca from the time of the great colonialism, but they also propose imagined linguistic encounters of a utopian kind, such as in his award winning work for Sound Art 91, “The 7448”, a radiophonic guide book to the Islands that Marco Polo is reported to have claimed are “beyond the China Sea”.

Rik Rue has for many years been producing and exchanging through the cassette culture network he seems to straddle, tape collages of noise and environmental sound he has assembled on his portable cassette studio, to the more elaborate use of the studio as instrument for mixing tape fragments in live improvisation with musicians,performance artists and other
enthusiasts of the pause button, dub culture. Rik Rue plunders the mainstream electronic networks of their sound disseminations, and re-channels them along the axes of this other network. Fragments are reassembled in real-time multi-track cassette tape mixes, turning the detritus of the electronic mass media, the archeology of recorded sound, into rapid fire de-constructions and abrupt reshapings at the will of the re-empowered consumer-turned-producer. Along with musical collaborators in the group Mind/Body/Split, and more recently the "Machine for Making Sense", Rik Rue and musicians perform in gallery spaces and other alternative performance venues, and of course on the radio, often on his own program on Public radio station 2MBSFM. These instantaneous bricollages are circulated back into the airwaves in reconstituted settings, where they achieve sonic and semantic ironies of a different order from their original transmissions or recordings.

A number of sound artists have inevitably been interacting with visual artists, eg Allan Lamb with video artist Joan Brassil; electronic composer Greg Schiemer with dancers, and sound designer Paul Charlier with photographer Dennis Del Favero. Because of her intense interest in landscape and terrain, time and topology, sculptor/video artist Joan Brassil finds that conceptually Lamb's sonic mapping of the landscape inhabits the same space as her reflected plexiglass video sculptures, while her own experiments in sound and image now involve a set of cosmic ray detectors and their interaction with video images. She also incorporates text to add a further dimension to the work. The collaboration between sound artist Paul Charlier, the photographer Dennis Del Favero, and the design artists Eamon, Darcy and Lorimer, has been co-ordinated by the photographer through his association with the "Federation of Italian Migrant Workers and their Families". Each installation has been based on a theme pertinent to the Italian migrant in Australia. Those Final Moments was a photo/text installation within a three dimensional, constructed environment with accompanying slides and sound track or radio play. The theme was the particular set of traumas of displacement, adjustment, lost memories - experienced by a fictional migrant family. Their struggles with the fascists in Italy during World War II is juxtaposed with their subsequent experiences as immigrants and contemporary anti-nuclear struggles in Australia. The installation was designed to be continuous, posing an interesting problem for the audio component in terms of narrative. A semi-abstract, circular narrative was devised such that it could be listened to by a visitor to the installation from any point on entering the installation. Thus the number of ways of listening to the sound work depended on the moment of entry into the exhibition. More recently Charlier has played with the circularity of narrative in "E-dice: A Plan for Euridice", an open form collage of six episodes, which can be played aleatorically or in whatever order the listener chooses.

Possibly the largest scale interactive works in which sound artists have taken part were the projects that the electronic composer Greg Schiemer was involved in. Beginning with interactive devices designed by Schiemer for the dancer Phillipa Cullen to sculpt her own sound through movement, these theremin based feedback systems gave the performer control over pitch, duration and frequency of electronic sound. From early interactive pieces like these a body of multi-media spectacles were developed by an ever increasing group of collaborators. In the Wattamolla project, an entire community from the southern coastal township of NSW were involved in constructing a massive spectacle in homage to the aboriginal legend of the rosetta sisters and the rainbow eel. It was enacted by the people of Wattamolla collaborating with a variety of visual and audio artists. The sound component of this spectacle was recorded and broadcast in a radio program by Kaye Mortley.

Ross Bolletter's investigations into the phenomenon of synchronicity have also made use of the telephone system and radio to create unique networked performances. "Simulplay I" connected Bolletter from Perth with Jim Denley during Ars Electronica on Austrian radio. In "Simulplay II" Bolletter played live to air from Perth with Richard Ratajczak in Sydney, and for Simulplay III (POCKET SKY), Perth, Melbourne and Sydney were interconnected by Satellite with London, Berlin and Vienna for a live to air structured improvisation in The Listening Room on ABC FM. The performers in this global hookup did not hear each other for large parts of the performance, but at certain moments in the broadcast various interactive windows were opened through which they could catch audio glimpses of each other for direct interaction. Only the radio audience was able to hear the complete performance and to evaluate the chance moments of interplay that took place.

In this profile of sound art it is hard to include all the kinds of ideas that have been bubbling to the surface of the airwaves. Where do we place the radio violin fantasies of Jon Rose, the operatic radio scenarios of Moya Henderson, the semi-scripted, semi improvised performances of Virginia Baxter and Keith Gallash, the phonic critiques of Fran Dyson and the philosophically performative manifestos of Virginia Madsen, as well as the seminal creative radio work of the Paris based auteur Kaye Mortley.

I recent years concerted efforts have been made to coordinate and interchange the work of creative radio makers internationally and to expand the network of sound artists. In Australia publications like Art and Text, New Music Articles and Sounds Australian, and the recently formed Contemporary Sound Arts have published articles essays, scripts, diatribes and manifestos. Major and minor galleries have presented curated exhibitions and individual works. The recently instigated Sound Culture is moving into the second round of its Pacific rim festivals in Japan, and Rebecca Coyle's project for the MCA, Sounds in Space is in preparation, while in Perth EVOS are preparing for a Festival in November.

Ars Acustica International has brought together radio stations around the world who share an interest in this kind of work. It is a forum for the production and research in the field of radio creation, to further the development of an autonomous acoustic art which is neither music, literature, nor radio drama, but an art of radio, an acoustic art with an interesting, if little known, history of pioneers, theorists and cult figures, constantly on the edge of extinction, in need of inventing new strategies for survival in a broadcasting environment where ratings and marketing have become the overriding concern, but continuing to
produce remarkable radiant works of phonic art.