The Sonic Commons: An Embrace or Retreat?

Dr Nigel Helyer
Professorial Visiting Fellow at The University of New South Wales
AudioNomad Research Group, School of computer Science and Engineering
sonic@sonicobjects.com

Privatisation

Contemporary western culture takes such notions as the private and the intimate very seriously, regarding them as both fundamental and natural rights. So closely linked are they to the basis of industrial capital that it is easy to overlook the historical reality, where private space, as opposed to the public vis-à-vis, is a relatively recent luxury commodity!

In the audio realm, the communication technologies of the telephone and wireless broadcast have created and proliferated the possibility of *intimate listening spaces* within the public domain. Recent developments in mobile audio devices such as the cell phone and personal listening systems have amplified the transformation of the sonic commons, punctuating it with myriad imploded private soundscapes.

Such immersion in the self, such selective listening, is a retreat from public and shared aural forms towards an individualised and commodified form of aural experience. This movement strongly parallels the recent embrace of political and economic tendencies that shun the collective and communal but valorise the individual and the privatised. The concept of aural privacy, once inextricably linked with either spatial isolation (a conversation in camera) or with furtive behaviour (whispering), now strikes us as remarkable. The *internalisation* of sonic narratives has an interesting precedent in the discovery of silent reading; for we forget that before the 5th century the literate were also *performers* of written texts. The first known citation of silent reading was recorded by St Augustine in reference to a 5th century monk, Ambrose.

> "When he read his eyes scanned the page and his heart sought out the meaning, but his voice was silent and his tongue was still. Anyone could approach him freely and guests were not commonly announced, so that often, when we came to visit him, we found him reading like this in silence, for he never read aloud."[1]

To gauge the significance of this shift in behaviour, imagine a London Tube at peak hour with the entire carriage intoning articles from *The Times* and *The Telegraph*!

Telephony; locatedness and public speech

Whilst it is common knowledge that technological forms of sound reproduction have had a dramatic effect on the manner in which we experience sound in the public realm, we are less aware of the underlying transformations in relation to the spatial location, temporal displacement and the virtual elimination of provenance that mark recorded and transmitted audio.

Murray Schaefer's[2] *Schitzophonic* splitting of a sound from its original source en-route to being embalmed in a recorded or transmitted medium is at the very heart of both the temporal and spatial dislocations with which we are now so familiar. Schitzophonic audio therefore runs counter to the powerful and fundamental psychoacoustic linkages between the eye and the ear, forming the perceptual glue that instantly identifies a sound with its source and location. This disassociation of sound and source is enshrined in the history of Electroacoustic music as Acousmatiques.[3]

The original fixed landline (point to point) telephone represents one of our earliest experiences of schitzophonic audio. Even so, the early telephone system marked the geo-spatial location of those in dialogue to the point that each correspondent associated the signal with both a personality and a physical surrounding and therefore to some extent, the telephonic act became a sonic bridge between familiar sites. At each end of the line, an imagination of the distant site, a parlour with overstuffed chairs and a mother's dress, a formal wood panelled office and the smell of pipe tobacco and so on.

Thus, the landline partially diminished the spatial otherness implied by communication at a distance by frequently reinstating a supplementary knowledge

of the distant location. Contemporary telephonic communication has, however, become increasingly de-territorialised and de-racinated, in effect promoting dialogue between nomads, obliterating the concept of familiar location or environs. It is not without irony that the first question posed during a mobile phone conversation is not 'How are you?' but 'Where are you?' with the inevitable response 'I'm on a bus!'

Along with mobility the cell phone has initiated forms of social evolution (or devolution). Originally phones were mounted on walls their earpieces at head height — it was, of course, impolite to talk to a stranger in a sitting position, it was also considered improper to 'chat' on a telephone (something apparently women were inclined to do). Early telephone companies went to considerable lengths to reserve the device as a business machine and, in some cases, strove to keep them out of private homes! Nineteenth Century telephone aficionados would be alarmed at the prosthetic application of Bluetooth headsets and the spectre of the glossaliaic pedestrian merrily talking to invisible correspondents and gesticulating wildly.

Wirelessness, smallness and mobility — the Tranny and the Boom-Box

The development of transistors delivered miniaturisation and *ipso facto* true portability, the consequence being that radio and phonographic replay now could leave the home (and the power outlet) to head for the streets, the beach and the ghetto. This Sonic Assault has two phases: Intrusive and Implosive audio. The first of these audio modalities, the invasive or expressive, is exemplified by the Ghetto-Blaster and its more recent incarnation, mega-bass low-rider vehicular sound systems. Whilst the old boy with the transistor glued to one ear, listening to the cricket (or the ball-game) is not considered as noise pollution — the dude with the Boom-Box is trying really hard! The Ghetto-Blaster in effect re-ritualises sound in public space and makes an unequivocal claim on cultural space.

In marked contrast to the expressive nature of the Ghetto-Blaster, we are currently witnessing an implosion of Audio-Worlds (as if in recoil from an overload of Urban stress) into the micro-acoustic-ecologies of the Walkman, the cell phone and the iPod. This tendency initiated by the Walkman and now conferred upon the iPod nullifies the vis-à-vis of Public Space transforming collective experience into serial withdrawal — A retreat, perhaps a respite from the press of bodies in the commuter train, an escape from the pressure of being a (social-being) within the anonymous Crowd. The general and desired use of mobile audio entertainment is to isolate the user from anonymous public situations (Crowd) and transitory geographical/spatial situations (Transit), Public Transport being the ideal nexus. The audio-bubble effect also extends to the monotony of the gym treadmill, the boredom of air travel and ironically to the delights of jogging.

To be optimistic we might embrace the greater community of consumers and indulge in the simplistic embrace of the notions of the freedom of choice within the free-market economy of music(s), especially if we adopt the view that now all music is *world music*, a commodity form set free from ethnic and cultural boundaries by the corporate sector. We may now assert and affirm our individuality by the esoteric nature of our playlists, sharing them even, in generous acts that freely give that which is not legally ours (sorry Sony records but thank-you Limewire).

That which remains...

The counterpoint to an audio world composed of myriad private mobile soundscapes is found in its negative envelope, that which remains as public aural space inhabited by those weak and fractured signals that escape from earbuds and headphones. Unlike the hauntingly somatic riffs of a street saxophonist, playing to no one in particular late at night, these are transient B.P.M. signals just audible enough to attract the attention, but instantly discarded as irrelevant and redundant. The ear constantly hunting but failing to identify meaningful patterns; a mechanism reminiscent of British Army Intelligence audio torture, once practised against IRA political prisoners!

Re-Situation and re-immersion

Other recent technologies are, however, starting to reverse these paradigms of isolation and withdrawal from social and geo-spatial situations. Locative forms of media are beginning to 'situate' the participant in a geographic and cultural context at both the theoretical and experiential level that potentially might reinstate an electronically mediated vis-à-vis.

AudioNomad test rig on Sydney Harbour 1996.

The AudioNomad project may be simply defined as an augmented audio reality system[4] that adopts a naturalistic or landscape metaphor of our sonic experiences, operating via a metaphor of sonic-cartography and able to co-locate virtual audio with physical features of the environment.

There is a marvellous passage in *The Life and Opinions of Tristram Shandy*[5] that describes a unique map, made at one to one scale; that is a map made to fit exactly over the physical features it represents! The AudioNomad research programme operates a sonic cartography with very similar characteristics, due to the potentially vast scale of the geographic area available to the GPS enabled system and amplified by the fact that the sound composition is performed in real time by the mobile presence of the user traversing real geography.

Yet, another literary source provided the conceptual impetus for the development of a sonic cartography able to seed a physical environment with virtual audio memories. The storage and retrieval of audio content within a complex soundscape, virtually associated with real landscape objects, has its precedence in the classical mnemonic system for storing rhetoric.

In *The Art of Memory* Frances Yates[6] paints a vivid picture of the antique technique that enabled Orators to place memory objects (such as lengthy quotations) within the labyrinthine spaces of classical architecture. By visualising an architectural interior, real or imaginary, the speaker might place here a red cloak over a sculpture (as a mnemonic trigger) and there, a sword on a table to locate yet another passage. By memorising a stroll through this virtual architecture, an Orator could retrieve a vast amount of correctly sequenced rhetoric.

The AudioNomad project transmutes such imaginary architectural space into the cartographic space of a digital map (itself a representation of the physical site of the project) and develops a complex sonic landscape by assigning soundfiles, trajectories and other acoustic and navigational properties, at multiple locations within this virtual domain.

Whereas the classical rhetorician would re-play a walk through an imaginary architecture, to sequentially retrieve the elements of a speech, the participant in an AudioNomad project literally walks in a real environment, their position and orientation driving the software to render an immersive and dynamic soundscape via surround enabled headphones. The user perceives individual audio events to be 'located' at specific points in physical space, and as these share similar acoustic properties with the surrounding ambient sound, a seamless nexus is formed between the real and the virtual suggesting a type of parallel audio world, in which memories of particular sites are invoked alongside contemporary reality.

The "Regal" equipped with 12.2 surround array for "Syren for Port Jackson" 1996.

Futures and conclusion — Edison's Ars Memoria concept for the phonograph.

"Your words are preserved in the tin foil and will come back upon the application of the instrument years after you are dead in exactly the same tone of voice you spoke in then…..This tongueless, toothless instrument, without larynx or pharynx, dumb, voiceless matter, nevertheless mimics your tones, speaks with your voice, speaks with your words, and centuries after you have crumbled into dust will repeat again and again, to a generation that could never know you, every idle thought, every fond fancy, every vain word that you chose to whisper against this thin iron diaphragm". [7]

Edison conceived the phonograph plain and simple as a memorial device, a means to archive the transient voices of relatives as a sonic counterpoint to the family photo album. That the future of the phonograph was to rapidly evolve into a commercial device driven by musical entertainment is with hindsight an obvious irony, but one that Edison both missed and was resistant to. Naturally, we should not overlook the fact that Edison was partially deaf! [8]

GIS worlds — the environment as a polyglot audio archive.

Notwithstanding the overwhelming use of audio recording technology harnessed to the commercial mill of the music industry, Edison's presentiment concerning the mnemonic use of audio has a ring of truth. The potential to develop intelligent, interactive audio-cartographies, as outlined in the AudioNomad project, in which powerful GIS technologies[9] serve ubiquitous mobile devices may well see a world in which audio

memories reside in every nook and cranny, attached to URLs domiciled at the nodes of a global 10cm grid.

In the vein of *Pygmalion*, the Edison Company turned its hand to manufacturing talking dolls, producing several thousand in the 1890's. This uncanny embodiment of the voice in the mechanical flesh of a puppet is today transformed into a range of (not so smart) mobile devices, but devices that will within a short period of time, become intelligent companions, potentially far more sensitive to physical location and the invisible flows of data than ourselves.

1   St. Augustine of Hippo a series of thirteen autobiographical texts by written between AD 397 and AD 398. Confessions.

2   Schafer, Raymond Murray 1977 The Tuning of the World. Random House Inc.. ISBN 0394409663.

3   Acousmatics (from the Greek Akousma, what is heard) has its origins with Pythagoras (6th century BC) who delivered his oral teachings (oracle-like) from behind a curtain in order to prevent his physical presence distracting his students, a technique designed to grant them a pure focus on the content of his words. In 1955 the term "Acousmatique" was employed by the poet Jérôme Peignot, at the beginning of musique concrète, as an adjective, meaning a sound that we can hear without knowing its cause, and to designate the distance that separates a sound from its origins, by obscuring, behind the impassivity of the loudspeaker, any visual elements that may be associated with it. Then in the early 1970s, Francois Bayle introduced the expression Acousmatic Music while director of the Groupe Recherches Musicales in Paris, employing it to denote a specific kind of music, as an art of projected sounds shot and developed in the studio, projected in halls, like cinema.

4   Augmented Audio Reality refers to a system in which allows an auditor to experience ambient/local sounds whilst simultaneously overlaying these with additional audio information. Virtual Audio Reality refers to a system that immerses an auditor in a dynamic and spatially active audio environment, which may or may not be linked to a corresponding visual domain (real or virtual). The audio supplied is intended as a total environment and supplants any local or ambient sound. VAR is not essentially concerned with a functional relationship to events and objects in physical reality, it is best employed in totally VR environments or where there is a desire to diminish or suppress the links between the visual and the aural in the quotidian world (as in the iPod). AAR on the other hand has a vital concern to link synthetic audio events and compositional; strategies with aspects of the physical environment through which the 'AudioNomad' is navigating (whilst simultaneously navigating the parallel cartographic/sonographic software).

5   Sterne Laurence 1759 to 1767 The Life and Opinions of Tristram Shandy, Gentleman London.

6   Yates Francis 1966 The Art of Memory University of Chicago Press.

7   Thomas Edison in a presentation to the New York Post.

8   As was his first wife Mary to whom he proposed by tapping on her wrist in Morse code; their first two children, were nicknamed "Dot" and "Dash".

9   Geographical Information Systems — or Geomatics, relates data to a geo-spatial coordinate, thus facilitating the recent development location sensitive interactive systems.