

The Sonic Commons

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ITEM_01 PAPER ABSTRACT: -

The Sonic Commons (and the privatisation of the aural vis-à-vis).

Synopsis ~ The Sonic Commons is an examination of the formation of the contemporary urban soundscape, or the Sonic Commons and the social, economic and technological pressures that are transforming our shared aural spaces. The paper will focus upon the historical development of forms of public address in urban space and will follow the tendencies that are currently privatising our aural experience. The paper concludes with a discussion of location sensitive, mobile audio technology, which offers the potential to facilitate communal aural realms.

Introduction ~ 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, in 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 with the recent embrace of political and economic tendencies that shun the collective and communal but which valorise the individual and the privatised.

This paper analyses the composition of contemporary aural environments proposing them as heavily contested communication spaces and attempts to parallel the mounting pressures of the urban context with the increasing acoustic stress found within so called natural environments.

The paper concludes by proposing concepts of 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.

PAPER: -

This presentation is an extract from a longer essay The Nomadic Ear is available at at: - http://www.sonicobjects.com/index.php/sonicobjects/more/the_nomadic_ear

A reprise: -

To furnish a context, the original essay examined concepts of spatiality, of location and the interactions of sounding bodies that articulate and activate the soundscape. How we as auditors experience the sonic domain and how we as authors compose and construct compelling, immersive audioscapes.

As a means of illustrating some strategies and methodologies for the design and composition of sonic narratives (soundtexts) in non-linear audio environments, I shall use four characteristic modes from my own creative and research projects that exhibit various forms of Immersion to highlight these issues.

1. Three-dimensional speaker arrays with dynamic spatial audio.

2. Environmental and public soundart projects.
3. Interactive multi-channel projects.
4. Location sensitive terrain-based spatial audio research.

These four categories of soundart projects each deal in a different manner with modes of immersion and with different constructions of narrative and forms of interaction. Each category adopting different strategies for composition and content development within immersive environments; identifying varied auditor experience, highlighting concepts of Linearity and Non-linearity and changing perceptions of locale and locatedness.

The works also allude to the changing concepts of sonic immersion particularly in reference to Public Space by indicating how the technologies of audio transmission and reproduction have increasingly enabled and encouraged forms of privatized and selective hearing affecting a withdrawal from the Sonic Commons.

Before we launch into the main topic let us, begin with the simple question of our location. How might our auditor position themselves in the vast and complex web of vibrations that form the sonic environment? The answer is both simple and fundamental ~ our sensorium demands that each, and every one of us inhabits the epicentre of the sonic world; we permanently occupy a mobile sweetspot (to employ the parlance of the audiophile). There is of course no better place to be ~ whilst we share equally in the sonic commons we are simultaneously privileged as the absolute ruler of our personal sonic realm.

In effect, our senses form a Procrustes Bed upon which the palpable world must comply. Therefore, that which we naturally assume to be comprehensive and exhaustive is simply a small portion of a vast spectrum that extends well beyond our perceptual hearth and home.

The second alarmingly simple issue is that of Immersion. Whilst achieving a convincing sense of immersion in the form of an artifact demands considerable skill (and generally piles of expensive equipment) it is ironically an inescapable condition of our quotidian experience. We are immersed in the womb, bathed by pulsing body fluids and maternal speech alike; upon issue into the world we are henceforth saturated in subtle vibrations and alarming noises whether awake and asleep, like it or not! Immersion and Centrality are therefore naturalised conditions of our acoustic experience.

So to the Sonic Commons!

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, in 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 with the recent embrace of political and economic tendencies that shun the collective and communal but which 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 being 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 2 coined the term Schizophonic to denote the splitting of a sound from its original source, en-route to being embalmed in a recorded or transmitted medium. Schizophonia is at the very heart of both the temporal and spatial dislocations with which we are now so familiar. Schizophonic audio therefore runs counter to the powerful and fundamental psychoacoustic linkages between the eye and the ear, primal linkages that form the perceptual glue allowing us to instantly identify 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 the earliest experiences of schizophonic audio. Even so, the early telephone system clearly 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 mothers dress, a formal wood paneled 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 glossalialic pedestrian merrily talking to invisible correspondents and gesticulating wildly ~ mannerisms formerly associated with the asylum.

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; the Intrusive and the Implosive.

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 entertainment audio is to isolate the user from anonymous public situations (Crowd) and transitory geographical/spatial situations (Transit) with 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 concept of a greater community of consumers, allowing ourselves to indulge in a simplistic embrace of the notion of a freedom of choice within the free-market economy of music(s). We might also adopt the view that all music is now world music, a commodity form set free from ethnic and cultural boundaries by the corporate sector.

In this scenario we can assert and affirm our individuality by the esoteric nature of our playlists, even sharing them, in a generous act that freely gives, 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 ear-buds 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 practiced against IRA political prisoners until it was halted by the International Court!

Mobile telephony has offered captive-audience commuters the inescapable aural entertainment of eavesdropping to telephonic semi-dialogues, those either strident or intimate half-conversations (those not quite monologues) that drive the imagination of the curious listener to synthesise and embroider the narrative of the absent correspondent. The lack of inhibition that permits these private dramas to spill into public space could be seen to invert the notion of an imploded, privatised aural realm if it were not for the total disconnection that the protagonist effects when projecting themselves into the telephonic aether. It seems that correspondents are simply not in the same psychic space as fellow commuters and likewise assume that their monologues remain covert and cryptic.

And the Beasts of the Field...

The final note on audio stress in urban environments concerns not the Sardines packed into commuter trains but urban wildlife. Recent research ⁴ has demonstrated that birds are singing louder and at higher pitches in order to communicate over the raised noisefloor of the city soundscape. As urban noise pollution is biased towards lower frequency mechanical sounds (motors, air conditioners etc) birds are responding by shifting register above these frequencies. Urban areas also tend to be more spatially open when compared to dense

woodland settings, in which birds often favour lower pitched song to avoid signal reflection by foliage.

Even more alarming is the current legal battle concerning the US Military encroachment of the Deep Channel strata of the Oceans, using them for mid and low frequency active sonar detection, but with lethal consequences for Whales 5. The US court has recently upheld the Military's right to deploy such low frequency systems despite conclusive evidence that demonstrates the signals resonate the internal ear of Whales destroying their hearing and depriving them of their ability to navigate, resulting in many standings and deaths. Ironically it was military sonar operators who initially documented the singing of whales enabling the entire debate about their sentience ~ it is doubly ironic therefore that Japanese whaling ships are deploying a US Military technology, LRAD (Long Range Acoustic Devices) arrays as sonic weapons against the anti-whaling activists onboard the Sea Shepherd, causing nausea and hearing damage amongst the crew.

Re-Situation and Re-Immersion.

To return to the Sonic Commons ~ recent location sensitive technologies have the potential to reverse the 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.

The AudioNomad project may be simply defined as an augmented audio reality system 6 that adopts a naturalistic or landscape model 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 marvelous passage in *The Life and Opinions of Tristram Shandy* 7 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 8 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 visualizing 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 memorizing 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 and 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.

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. 9

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 too. Naturally, we should not overlook the fact that Edison was partially deaf! 10

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 serve ubiquitous mobile devices may well see a world in which audio memories reside in every nook and cranny, attached to URL's 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.

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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.

3 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 Hans Slabbekoorn and Ardie den Boer-Visser, at Leiden University in the Netherlands, recorded and compared great tits (*Parus major*) singing in 10 European cities and in nearby forests.

5 On March 15 and 16, 2000, nine Cuvier's beaked whales, three Blainville's beaked whales, two unidentified beaked whales, one spotted dolphin, and two Minke whales were reported stranded along the Northeast and Northwest Providence Channels on the Bahamian Islands. The strandings took place within 24 hours of the intensive use of active midrange sonar by U.S. Navy ships as they passed through the Northeast and Northwest Providence Channels.

Specimen samples were collected from four dead whales. Three of these whales showed signs of bleeding in the inner ears and one whale showed signs of bleeding around the brain. Whale biologists determined that the most likely cause of the bleeding was either a blow to the head or exceptionally loud noises.

“The investigation team concludes that tactical mid-range frequency sonars aboard U.S. Navy ships that were in use during the sonar exercise in question were the most plausible source of this acoustic or impulse trauma,” the report concludes.

The interim report is available online at: http://www.nmfs.noaa.gov/prot_res/overview/Interim_Bahamas_Report.pdf

6 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).

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

8 Yates Francis 1966 *The Art of Memory* University of Chicago Press.

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

10 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”.