

***Sound as Protest: Echo and Narcissus and the contest for aural space.***

I am going to take you on a walk, a 'soundwalk' I shall lead you, by the ear, if necessary, through the Sonic Commons, a resonant and contested geography that encompasses the shared sonic experience of public space as well as private and the privatised, the imaginary and virtual sound worlds that span from classical to contemporary eras.

Our journey will touch upon the strong perceptual relationships between sound, site and memory, and the ideological role that architecture, technology and Capital play in transforming sound to affect and persuade listeners. Our route will detour around the cacophony of the street riot and the strains of the protest song and steer clear of the shockwaves of direct conflict to encounter the subtle sonic disturbances of daily life that reflect the inexorable drive towards the privatisation of the public sound realm and the countering strategies of adaptation and resistance.



Fig.1. *Echo and Narcissus*, 1903, John William Waterhouse, collection of the Walker Art Gallery, Liverpool, UK.

To guide us through this mythical terrain of aural exchange and transaction the ghosts of Echo and Narcissus have been recruited as ambassadors of alienation and agents of de-materialisation.

***Disembodiment: Echo and Narcissus.***

Echo and Narcissus, their stories entwined - Echo, the talkative nymph.....'yet a chatterbox, had no other use of speech than she has now, that she could repeat only the last words out of many....' and Narcissus the vain youth who rejects the nymphs advances, were first combined by Ovid in his work *Metamorphoses*.

A curse placed upon Echo limited her speech to mimic those around her. After her brush with unrequited love for Narcissus she faded away into the forest so that only her voice remained to inhabit the wooded slopes.

Echo's voice a *revenant*, her pronouncements mere cuts, disjunctions and glitches that constitute an anti-communication - a truly 'schizophonic'<sup>1</sup> speech, dislocated not only from her body but from discourse and meaning. In many respects Echo's voice stands as a metaphor for the fate of sound within the technological project.

After shunning Echo, Narcissus lay beside a forest pool, entranced by an image of youth and beauty. Not recognising his own reflection, he became deeply enamoured with the visage which mirrored his every move but which agonisingly vanished each time he attempted to reach out with his lips.

He died at that spot, disconsolate, weeping as the nymph had done, his sobs repeated throughout the woods by those of Echo. As his body melded with the forest floor a flower we know as a Narcissus bloomed. Even as a shade standing on the shores of the River Styx ready to cross into Hades he still obsessively sought his reflection in the turbid waters.

Echo and Narcissus, might be originary Audio-Vision<sup>2</sup> couple - their entwined fates are transformed by *reflection* and the transfer of meaning from a physical source to the symbolic. The couple struggle in an uneasy asymmetrical relationship that rapidly moves towards de-materialisation, a decoupling from the material world to the ethereal, to become isolated and alienated.

Whilst Marx<sup>3</sup> and William Morris may have identified alienation as a direct negative consequence of industrial capital and its dehumanising work methods - with hindsight it may be that alienation is not a byproduct at all but one of Capital's principal objectives. From what might have initially seemed to be an unintended side effect, alienation can be recognised as a principal mechanism driving the *desire mill*, the motor of commodity capitalism, creating the existential vacuum that is centripetally filled by goods and services.

***The universal ear ~ the listener as centre of sound and power.***

*The palace is all whorls, lobes; it is a great ear, whose anatomy and architecture trade names and functions; pavilions, ducts, shells, labyrinths. You are crouched at the bottom, in the innermost zone of the palace-ear, of your own ear; the palace is the ear of the king.<sup>4</sup>*

The palace is an acoustic panopticon, a surveillance device. Calvino's text image reprises the detailed architectural drawings of Athanasius Kircher, the seventeenth century Jesuit polymath, who in his *Ars Magna Lucis et Umbrae*<sup>5</sup> described and illustrated architectural systems for both listening and communicating. In the contemporary era the massive acoustic architectures of Kircher have vanished, transformed by the dissolution of physical and mechanical communication systems so well described by Paul Virillio in such works as *Speed and Politics* and *The Aesthetics of Disappearance*<sup>6</sup>. Traditional spatio-temporal boundaries are punctured and dematerialised and

surveillance has become a ubiquitous practice in the form of wire-tapping, radiophonic interception, acoustic-bugging and the robotic trawling of internet traffic, the state replacing the omniscient eye of god!

### ***The Listening Self.***

At a metaphoric level Calvino's text is also a metaphor for the unique and centralised subjective position that we all inhabit as individual listeners. Physiologically we have no option but to inhabit the centre of a vast and complex web of vibrations that form the sonic environment - our sensorium demands this of us. There is of course no better place to be ~we are at the *sweetspot*, indeed we *are* the *sweetspot*, of a personal, mobile sonic realm.

Our perception of the world is of course framed and delimited by our senses, which form a type of Procrustes Bed<sup>7</sup> upon which palpable reality is forced to comply, creating the illusion that our worldview is both comprehensive and exhaustive. That it actually represents only a small portion of the vast spectrum extending well beyond our perceptual hearth and home is conveniently overlooked, this is the basis of anthropomorphism.

It follows that our subjective experience of the soundscape is total and constant - it is impossible to conceive of an objective position or to experience, for example, a genuine silence. We are immersed in the womb, bathed by pulsing body fluids and maternal speech alike; upon issue into the world we are saturated in subtle vibrations and alarming noises whether awake and asleep, like it or not!

*Be not afeared; this isle is full of noises,*

*Sounds and sweet airs that give delight and hurt not.*

*Sometimes a thousand twangling instruments'  
Will hum about mine ears; and sometimes voices  
That, if I then had waked after long sleep,  
Will make me sleep again; and then, in dreaming,  
The clouds methought would open and show riches  
Ready to drop upon me, that, when I waked, I cried to dream again.*<sup>8</sup>

The soundscapes that we perceive as intricate and seamless natural compositions, for example, a forest at dawn or the metropolis at rush hour, are in reality conglomerations of independent and unrelated sounds. What appears as a structured and syncopated whole, is generated by a vast array of largely unrelated sonic events, some intentional, but mostly accidental<sup>9</sup>. All of these individual sonic sources are spatially displaced but ultimately they converge upon our ears at the centre of the our soniferous universe. Likewise individual auditors form another spatial matrix and when the two are overlaid - the matrix of sound sources upon the matrix of listeners, the result is similar to the testimony of witnesses in court; each auditor experiences the sonic environment in a subtly different version!

### ***Interpretation & mis-interpretation.***

Such inescapable immersion and entanglement with the sonic world, perhaps runs contrary to the process of objectification that Narcissus experienced - a process which Lacan's earlier writings described as the *Stade du Miroir*, the 'libidinal relationship with the body image' that helps develop the Ego.

Perturbations in the negotiation between the imaginary and the real are recognised as *méconnaissance*, a misinterpretation in which the subject becomes alienated from itself and drifts

into the imaginary. In the same manner Echo's sonic reflections are *mis parlées* (mis-spoken) or *mal entendu* (mis-heard) her utterances forming a potentially intentional re-ordering of the truth.

A corrupted formation of the self image is a familiar trope in literature. In a passage reminiscent of Ovid's tale the creature in Mary Shelly's *Frankenstein* is taken aghast at his own reflection glimpsed in a forest pool "how was I terrified, when I viewed myself in a transparent pool." This inversion sets the scene for the mayhem that unfolds as the alienated creature wreaks his vengeance.

In yet another tale drawn from Ovid's book of transformations (*Metamorphoses Book 10*)

Pygmalion, a Cypriot Sculptor who, for want of an interest in living women, carves an ivory likeness of his ideal woman. Under the aegis of Aphrodite, Pygmalion eventually brings the statue to life, in a manner followed by most subsequent fairy-stories, by means of a kiss or two, the cool hard surface of the ivory, warming to become supple and responsive flesh.

George Bernard Shaw's *Pygmalion*, a 1912 reworking of the myth for the stage (and the subsequent filmic and stage musical versions e.g. *My Fair Lady*) focus not upon the biological but the cultural transformation of a young cockney woman Eliza Doolittle. In class ridden Britain the action centres upon the voice and accent as the key to social transformation. Her appearances are set aside and it is the fruit of Doolittle's intensive elocution training with the phoneticist Henry Higgins that reverberate in people's minds. Blood, breeding and class are distilled in the Echo as Eliza reverses the Victorian dictum - for all intents and purposes she is *heard* but not *seen*!

Narratives of life bestowed upon the inanimate flicker between fiction and reality and have proved especially rich when directed at the minds of children, who have yet to erect rational barriers

between the real world and the imaginary one. Yet again it is the voice, or at least something that imitates the voice that is the primary vehicle and portal to the mind.

In the 1890's the Edison lab produced its own mechanical homunculi, some 7,500 talking dolls that contained miniaturised Edison wax cylinder machines capable of reciting a range of nursery rhyme sound-tracks (of approximately twenty-second duration). The nascent sound recording technology demanded that each utterance was the literal echo of the voice of one of a team of young girls employed by Edison to recite these rhymes, one at a time, into the mouth of the mechanical horn of the early Edison cylinder recorders.<sup>10</sup>

Ultimately the dolls proved to be an economic flop, partly due to their physical awkwardness and mechanical fragility, but moreover, they were disturbing and uncanny. Some parents even complained that the dolls would not respond to being taught alternative rhymes - demonstrating a misplaced empathetic response to the automata that now seems incredible.

There is however an eerie resonance with the contemporary debate centred on the internet enabled Cayla dolls, which have been accused of being a cuddly version of the Stasi - capable not only of answering children's questions but of surveillance, profiling and brain washing the malleable minds of toddlers. As a consequence Cayla has been sentenced to destruction by the German Federal government.<sup>11</sup>

Ironically Cayla may share the same fate as Edison's animated doll, the bulk of which were reported to have been buried in a mass grave in the grounds of the Edison Laboratory.

The innocuous image of a female toddler doll, the simulacrum of a child's companion is here allied with the digital Echos generated by search engines, the child who has fallen under the spell of the doll's echo is caught in a pincer movement of dematerialisation and is gradually imprisoned in a web of digital loneliness, where a homunculus replaces human contact and information replaces experience.

In the words of Rebecca Solnit we are experiencing *the dematerialisation of everyday life*<sup>12</sup> principally via the forces of suburbanisation and automobilisation. This view is more widely and accurately pursued by Paul Virillio in his serial analysis of the global effects of speed and telematics which dissolve spatial and political boundaries and rob democratic processes of the time to function.

### ***The Listening Self and His Masters Voice.***

Whilst idealised accounts of listening tend to adopt a neutral view - in any and every social context listening is colonised and harnessed by increasingly rampant economic and political interests.

The His Master's Voice logo depicts an obedient canine subject as an audience (of one) peering attentively, sniffing inquisitively and with ears pricked. The relationship between dog and megaphone characterises the *modus operandi* of all subsequent broadcast media and most audio technology.

The exponential acoustic horn doubles as both a musical instrument and the loudspeaker (megaphone) of massed rallies and carries an entwined double message in which entertainment camouflages the voice of authority.





Fig.2. The His Master's Voice record label, from an original painting by Francis Barraud in 1899 commissioned to advertise the Victor Talking Machine Company - known as the Nipper after the Jack Russell's penchant for ankles!

This image not only fixes the auditor/viewer in the confined sweet spot of a one-point perspective, (itself a powerful visual trope) but H.M.V. quite literally locates the source of the *Master Voice* within the device of the Gramophone and more importantly radio broadcast, neatly coalescing Sound, Technology and Power.

*Without the loudspeaker we would have never conquered Germany.*<sup>13</sup>

## **Sound and Architecture.**

As Calvino suggests in *Under the Jaguar Sun*, architecture is the site where we first encounter a profound transformation in the behaviour of sound. As we leave the half-space<sup>14</sup> of an open air environment architecture works to propagate and convolve the original voice to form reflections. This is the work of Echo and the natural origin of *Schizophrenia*. It is within architecture that we realise that our sense of space and location is conferred possibly more by the ear than by sight, where we understand that hearing and the related sense of touch is fundamental; primeval.

The uneven contest between the optical and the auditory is present in Plato's Cave<sup>15</sup> that conjures up a primitive, dawn of consciousness image, with shadowy representations flickering sootily across the cave's rear wall and the line of chained inhabitants, warming their backs to the fire. Plato posits these indistinct shadows as their sole means of interpreting reality but conveniently fails to mention the crackle of burning wood, nor the perfectly formed sound reflections returning from the cave walls which would have doubtless provided a stronger sense of the environment than the low-tech blurry visuals.

Calvino's Palace/Ear shows how the propagation and modulation of sound, functions to achieve a form of ideological control and points to the asymmetrical power relations of centralised surveillance and/or broadcast. The capacity of architecture to harness sound to power is evident in the specific effects of classical Greek and Roman Amphitheatres where a single individual could address thousands. The architectural acoustics of Meso-American ziggurats and ball-parks and their striking echoes; the talking Buddha statues in Thailand and the massive reverberation times of European Gothic cathedrals, which deliver a message of omnipresence, are all examples of architectural sound modification intended to create affective soundscapes. As a corollary sound

memorises the physical and textural characteristics of architectonic space and becomes a significant factor in our perception and memory of particular architectural spaces.

### ***Architecture, memory and the voice.***

Architecture has also been employed as the matrix within which mnemonic objects reside, specifically vocal communication. In *The Art of Memory*<sup>16</sup> Frances Yates paints a vivid picture of the antique technique that enabled Orators to place memory objects, in particular lengthy speeches, within the labyrinthine spaces of classical architecture.

By visualising an architectural interior, real or imaginary, the speaker might take a virtual walk by placing here a red cloak over a sculpture to recall a certain passage of oration and there, a sword on a table, serving as mnemonic triggers to locate yet another verse. By memorising an entire stroll through this virtual architecture, an Orator could retrieve a vast amount of correctly sequenced rhetoric. We unintentionally pay homage to this classical method when we say ‘in the first place.... in the second place.....’ aligning architectural structure with the structures of ideation and ultimately the power to persuade and control.

The Memory Palace is rehearsed in contemporary location aware audio technologies have adopted this ancient technique by simply replacing the imaginary architectural tour with GPS media-rich maps that allow us to negotiate real geography with location sensitive mobile devices to reveal specific voice and soundscape content.<sup>17</sup>

### ***Genius Loci - Sounds and Place.***

Sounds are neither neutral, pervasive nor necessarily mobile ~ one of the principal tools of the discipline of Acoustic Ecology is the identification of Keynote Sounds ~ sonic *Genius Loci* (or

spirit of place) which are deeply enmeshed with their environment. The sound of foghorns in San Francisco Harbour, or a rare tree frog in a particular tropical rain-forest, are examples of such micro acoustic ecologies.

Keynote Sounds are objective and salient sonic events that constitute an aural fingerprint of a location and hence form a memory object fused with location, much like the collocation of sound and imaginary architectural space in the *Ars Memoria*. However non-quotient and even subjective sounds can also form enduring mnemonic objects. Such idiosyncratic sounds may be associated with a specific physical event at a unique point-in-time, for example the historic explosion of the caldera Krakatoa in Indonesia on August 26th and 27th 1883. These sounds of the eruption are calculated to be the loudest acoustic event in human memory, the shockwaves being heard 4,500 km away (all along the SW coast of Australia, and across SE Asia).

A more current example might be the combination of both a permanent (but intermittent sound) such as Westminster's Big Ben, known more in its global Radiophonic role as a time keeper and BBC *earcon*. The chimes of Big Ben unequivocally identify a locus; Westminster/London/England but they also function to symbolise a variety of stereotypes and epochs. The combination of Big Ben with the grave voice of Churchill conjures the Blitz and British stoicism; mixed against the shrill of Thatcher's hectoring we get free market hell; perhaps disbelief when dubbed against the smoothness of Blair or the babble of Johnson.....and recently the spectre of terror attacks

### ***The Commons and Fiction.***

Another set of sonic memories that drift in between the personal and cultural, are the sonic memory objects that issue from the realm of fiction, from literary and especially filmic narratives. These are the artifactual sound worlds which criss-cross the planet as acoustic psycho-geography. The

Hollywood musical classic *The Sound of Music*<sup>18</sup> lives on in peoples imaginations but more importantly the narrative and musical memories from the film are constantly re-projected upon real-world loci. The cult of Julie Andrews and the tourist busses that constantly tour sites in Salzburg illustrate this confluence of fictional events and the popular imaginary, as an extract from a Salzburg tour company brochure illustrates.

*1965 Salzburg was the scenery of a film, which would become famous:*

*The Sound of Music starring Julie Andrews and Christopher Plummer.*

*Our busses were used by the film crew and our limousines carried the stars.*

*After the release of the film, many fans came to Salzburg asking about the original sites and our drivers could naturally guide them.*

*That's how the Original Sound of Music Tour started.*

These sonic pilgrims infected by soundtracks, *earworms* and *earcons* can be found everywhere, visiting Martin Luther King's *I had a Dream* church, crunching along the beaches of Turtle Island, Fiji where the 1980 *The Blue Lagoon* was filmed, filing in crowds atop the ramparts of Split and Dubrovnik ('winter is coming John Smith' - *from the Game of Thrones*) or paying homage to Jim Morrison of the Doors at his (guarded) grave in Père Lachaise cemetery - constantly replaying the soundtracks in their heads as they go.<sup>19</sup>

### ***The Commons ~ Sonic and otherwise - track 01.***

*They hang the man and flog the woman*

*That steals the goose from off the common*

*But let the greater villain loose*

*That steals the common from the goose.*

Anon.

The traditional, and by now, Utopian view of the Commons is as a set of geographies and environments that are freely available for the use of and enjoyment by all, beyond the restrictions and caveats of private property. This model of the Commons as a free no-man's-land set apart from the dominant economic centre and tolerated by the Imperium (Church, Lord and King) as a zone of marginal economic value for, albeit regulated, collective use, was rapidly eroded in the Anglo-Saxon world with the introduction of the Enclosure Movement that privatised farming and dismantled collective subsistence agriculture. The process of enclosing Common Land began in the British Isles in 1235 with the Statute of Merton but reached its peak between 1760 to 1832, by which time the medieval structure of agriculture had entirely disappeared. Land was increasingly regulated and access restricted. Village structures changed radically propelling villagers to either become landowners or wage slaves, most swelling the ranks of the urban poor as mill fodder, many departing as migrants to fuel the economies of the New World.

We currently regard the Commons less as physical or environmental sites but more as culturally shared and free assets. The essential characteristic remains in that they are noncommodifiable and noncommercial assets.<sup>20</sup>

***I can breathe freely now the rain has gone.....***

The atmosphere is a convenient metaphor for the commons in that we partake of its chemical composition for our very existence, it also provides the medium that propagates our acoustic world. We therefore take for granted that it is a natural right to breathe and to listen. However neither the chemical composition nor the acoustic ecology of the atmosphere remains unsullied.

The atmosphere, and likewise its chemical partner the ocean, are under increasing stress which manifest negatively in the health of the biosphere. As a direct consequence the acoustic environments that most of us inhabit have suffered powerful forms of erosion and depletion. No longer can we, by default, experience the small and dynamic sound of natural systems, blanketed under acoustic smog of motor noise and traffic rumble, piped music or the dull throb of the metropolis. The complex strange attractor patterns generated by natural systems and which are deeply embedded in our psyche are the casualties in this acoustic species loss.

In western urban centres we have witnessed the gradual elimination of physical effort and exercise from daily life, our energy rationalised along Fordist lines. To compensate for this lack, the wellbeing that the physical work once provided is resupplied in the commodified form of the gym treadmill and the personal trainer.

In a parallel vein the absent natural sonic patterns of the estranged environment resurface in the hushed but authoritative commentary of nature documentaries with their realistic sounding, but artificially constructed environmental backgrounds - or in the guise of ambient relaxation soundtracks with their semi-hypnotic voiceovers, designed to establish notions of well-being, harmony and one might imagine, obedience!

### ***Singing in the Rain.***

*A singer who sings like a bird is an unproductive worker.*

*When she sells her song, she is a wage earner or merchant.*

*But the same singer, employed by someone else to give concerts*

*and bring in money, is a productive worker*

*because she directly produces capital.<sup>21</sup>*

The same process of alienation has occurred in our vocal and musical lives, which were once rich in regional song, poetry and narrative, forming a rich ecology of organic musics. Then came that schizophonic moment when Edison invented the phonograph and two forces began to operate.

*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.<sup>22</sup>*

Contrary to Edison's wishes and predictions the phonograph was destined for purposes other than the serious business and archival direction that he intended. Instead of family vaults full of the voices of departed relatives the powerful agents of industrial capital seized upon the nascent technology transforming it rapidly and decisively into a vehicle for mass musical entertainment. This inexorable commercialisation had been previously rehearsed by the mass propagation of the sewing machine and then the bicycle, saturating domestic markets in rural areas as well as urban centres. Ironically it was Edison's partial deafness which severely limited his attention to music causing him to focus on the archival potential of sound recording technology and to discount other, more 'trivial' uses.



### ***Recording the World.***

When the Grim Reaper finally appeared in the guise of Ethnomusicologists hauling portable recording phonographs, the game was up. Once the traditional tunes were recorded the old folks could die in peace listening to the phonograph, the radio, the walkman and now the podcast. Ethnomusical material, sourced from all over the globe has reemerged as *World Music*, often beautiful hybrids of Eastern and Western, or Southern and Northern traditional melodies and lyrics but now played by professionals for our passive reception and enjoyment ~ we have traded creation for recreation.

This viewpoint could be accused of being overly pessimistic but the simple fact remains that in general very few of us can sing more than a line or two from our favourite songs, and communal singing is generally regarded as gauche in most urban circles, but is increasing in age care facilities as a means to combat Alzheimers. We can sing along to the prompts of the radio, jingles or karaoke but this merely identifies that what was once a natural and common property has been surrendered to the processes of Capital and resold to us in the form of privately owned commodities. Even our out of tune echo's reinforce the *earworms* implanted by commerce.

### ***Privatisation of the Commons - track 02.***

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

The transition from a public to a private mode of being can be charted in the gradual application of discipline to European audiences in a transition from unruly classical audiences, or rowdy

Elizabethan theatre goers, those one-penny *groundlings* who stood in the yard at the *Globe* eating drinking, shouting, answering back to soliloquies, to the obedient and passive audiences of today.

From the mid eighteenth century in northern Italy the encore was gradually banned, or shifted to the end of a performance, whilst Wagner's new opera house in Bayreuth which opened in 1876 enforced conditions of strict silence and darkness upon the audience. On one hand this can be read as honouring the creativity and commitment of the artist - on the other it speaks of cultural authoritarianism and the critical disempowerment of a new class of passive consumers - who to adopt a term from real-estate are engaged in the 'quiet enjoyment' of that for which they have paid.

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

Such immersion in the self; such selective listening, can be interpreted as a retreat from the shared, public soundspace, to be replaced by the embrace of an individualised and commodified aural experience. This development has strong parallels with the contemporary rise of political and economic tendencies that shun the collective and communal and valorise the individual and the privatised..

That the concept of aural privacy was until recently a rare situation, only achieved by spatial isolation (i.e. a conversation *in camera*) or with furtive behaviour (i.e. whispering) now strikes us as remarkable.

The internalisation of vocal narrative has an interesting precedent in the discovery of silent reading; for we overlook that before the 5th century the literate were also *ipso facto* 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.*<sup>23</sup>

To put this shift in behaviour into a contemporary perspective simply imagine a London Tube at peak hour with the entire carriage intoning articles from the Times, the Telegraph, SMS messages and Facebook trivia!

### **Telephony; locatedness and public speech.**

Whilst it goes without saying that technological forms of sound reproduction have had a powerful influence on the manner in which we experience sound in the public realm, we are less aware of the underlying transformations related to the spatial location, temporal displacement and the virtual elimination of provenance that mark recorded and transmitted audio.

The schizophonic 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. Schizophonic audio therefore runs counter to the powerful and fundamental psychoacoustic linkages between the eye and the ear, that form the perceptual glue allowing us to instantly identify a sound with its source and location. This association of sound and

image is one of our most primitive survival mechanisms. By contrast the disassociation of sound from a palpable source is enshrined in the history of electroacoustic music as *acousmatiques* which probably will not guarantee the survival of the species!<sup>24</sup>

The original fixed landline (point to point) telephone represents one of the earliest experiences of sound wrenched from its source. Even so, the early telephone system still marked the geo-spatial location of those in dialogue, in that each correspondent associated the signal with both a personality and a physical surrounding and therefore to some extent, the telephonic act functioned as a sonic bridge between familiar sites. At each end of the line, it was possible to imagine the distant site, perhaps a parlour with overstuffed chairs and a mothers dress, or a formal wood panelled office and the smell of pipe tobacco. In this case the aural disjunction is spatial rather than temporal but to a degree this is ameliorated by the supplementary knowledge of the distant location or the correspondent. It is perhaps the preview of augmented reality.

Contemporary telephonic communication has become increasingly deterritorialised and deracinated. The mobile phone essentially promotes a 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 in the quiet carriage of a train!*

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 as 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 the phone companies claimed women would do!

Early telephone companies went to considerable lengths to reserve the device as a business machine, in some cases refusing to install them in private homes! Nineteenth Century telephone aficionados would be alarmed at the prosthetic application of Bluetooth headsets and the spectre of the glossolalic pedestrian frenziedly talking to invisible correspondents. Such people, once shunned as raving mad, are now reluctantly tolerated.

***Wirelessness, smallness and mobility.***

The transition from thermionic valves to the transistor and the subsequent miniaturisation of electronics redefined both the size and *ipso facto* the portability of audio devices. Radio and phonographic replay now could leave the home (and the power outlet) and head for the streets, the beach and the ghetto.

This assault on the sonic commons has two chronological (and to an extent psychological) phases; intrusive and implosive audio. The first of these audio modalities might be considered invasive or at least expressive and is exemplified by the ghetto blaster and its more muscular incarnation, the mega-bass lowrider vehicular sound systems. Whilst the old boy perched on a park bench with a transistor radio 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 functions to re-ritualise sound in public space and makes an unequivocal claim on cultural space - establishing a sonic turf and demarcating cultural, ethnic and class boundaries!

Ironically, in a marked contrast to the expressive nature of the ghetto-blaster, urban spaces have in the second phase, witnessed an implosion of audio-worlds, a recoil from an overload of urban stress, into the micro-acoustic-ecologies of the iPod and cell phone.

This centripetal tendency, initiated by the Walkman and now conferred upon the cell-phone nullifies the vis-à-vis of public sound space transforming the collective experience of the soundscape into a serial and unequivocal 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, the crowd and transitory geographical/spatial situations - transit spaces and public transport being the ideal nexus. The individual *audio-bubble* effect also extends to the monotony of the gym treadmill, the boredom of air travel and curiously to the delights of jogging.

To be optimistic we could embrace the freedom of choice that consumers enjoy within the free-market economies of music, 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 can now choose to assert and affirm our individuality by the esoteric nature of our playlists, even sharing them in generous acts that freely give that which is not legally ours via peer to peer networks.

This new technological terrain, where content is no longer embodied in a physical object of trade (a Record, C-tape, or CD) has forced the large music corporations to modify their underlying *red in tooth and claw* tendencies and adapt in order to staunch haemorrhaging profit margins. Monopoly capital now emulates peer to peer piracy in the form of affordable and musically inexhaustible subscription services - it makes economic sense to be an obedient listener!

### ***That which remains...Orphaned Sounds.***

For the eavesdropper the commuter train is an audio-world composed of fragments of a myriad private digital soundscapes. This public aural space is but a negative envelope composed of the weak and fractured signals that escape from earbuds and headphones. Transient BPM (beats per minute) signals just audible enough to attract the attention of the ear, but which in its hunt for

meaningful patterns, are quickly discarded as irrelevant and redundant. This micro-acoustic background noise is accompanied by a more robust counterpoint - the chorus of one-sided mobile phone conversations, which at least afford the bored eavesdropper the quasi-literary occupation of recreating the absent narratives.

Stepping out of the station late at night, a chance encounter with the hauntingly somatic riffs of a street saxophonist, playing to no-one in particular - the melody echoing off the station facade, each note ebbing and flowing until they fade into the distance. - suddenly all is forgiven and forgotten!

### ***ElectroMagneticPulse - another type of Commons.***

For millennia our kind has either been terrified or awed by the crash of thunder and the flash of lightening, but until the modern era we have been oblivious to the third powerful component, not apparent to our limited senses ~ the Electromagnetic pulse. Even when we had established a vague inkling that some further phenomena accompanied the *donner und blitz* it took decades before it was harnessed to drive the telegraph, telephone, phonograph and radio. By the time the electromagnetic forces were being put to work our world no longer operated in collective terms, the proprietary drive of Capital had restructured the world as a mosaic of commodity forms and this included the Electromagnetic Spectrum.

Considered philosophically Electromagnetic phenomena constitute a Commons on a Cosmic scale of which our atmosphere may be considered a convenient (if local) analogue. We are immersed in both, neither can be effectively owned or contained, but the rights to inhabit and use the atmosphere and the electromagnetic spectrum as propagating media have been claimed (as if by force).

The electromagnetic spectrum has long ago been auctioned off to the highest bidder, be they the military, the Christian right or Murdoch (if indeed there is a difference) and the broadcast content, performance, recording and the transmission are also all regulated and commodified ~ there are scant loopholes in this simplex system.<sup>25</sup>

### ***Endangered Sounds and Endangered Species.***

As remarked, one reaction to social and economic disenfranchisement is that sound is used as a means of marking territory, of claiming a space. The push-back of the ghetto blaster, the low rider and the modified exhausts of Harley Davidson's all partake of this acoustic *Anschluss*, noisy individual attempts to resist the obedient muteness of the majority in the face of the corporate appropriation of our listening spaces and the commodification of our vocalisations and musics.

The *Endangered Sounds* project by Garth Paine<sup>26</sup> highlights the complex and often ridiculous attempts to carve off fragments of the auditory world into private ownership. It is not without irony that the issues of ownership of the atmosphere as the transmitting medium are not adequately addressed, neither are the effects of sonic modification caused by reflection, architectural propagation, or döppler taken into consideration.

“*Endangered Sounds* questions the legitimacy of privatising and protecting sounds that are released at random in public spaces. If I own a multi-million dollar penthouse in a city, and work night shifts, I have no recourse against the loud Harley Davidson or Australian Football League siren (both protected sounds) that wake me from my precious sleep both sounds are privately protected, making their recording, reproduction and broadcast illegal. Who has responsibility for these disturbances ~surely a level of corporate



responsibility should come with the mechanisms of private protection for financial gain afforded by the soundmarks?"<sup>27</sup>

Let us consider an entry from the Protected Sound Marks list ~ our old friend Tarzan.

Serial No:75326989

Registration No:2210506

Current Status: Applicant/Owner : Goods and/or Services: International Class: 28.

Registered:Edgar Rice Burroughs, Inc. toy action figures

Description ~ the sound of the famous Tarzan yell. The mark is a yell consisting of a series of approximately ten sounds, alternating between the chest and falsetto registers of the voice, as follow 1) a semi-long sound in the chest register, 2) a short sound up an interval of one octave plus a fifth from the preceding sound, 3) a short sound down a Major 3rd from the preceding sound, 4) a short sound up a Major 3rd from the preceding sound, 5) a long sound down one octave plus a Major 3rd from the preceding sound, 6) a short sound up one octave from the preceding sound, 7) a short sound up a Major 3rd from the preceding sound, 8) a short sound down a Major 3rd from the preceding sound, 9) a short sound up a Major 3rd from the preceding sound, 10) a long sound down an octave plus a fifth from the preceding sound.

It fills me with mirth to know that the monkeys screaming back at Tarzan as he swings through the jungle are in fact recordings of Australian Kookaburras - even more amusing is the patent description of an unadulterated Harley Davidson exhaust as *potato, potato, potato, potato*.

Narcissus gazes intently at his reflection vibrating in the polished chromework and Echo's attempts at jungle screams ricochet from the facades of main-street as they cruise self-consciously on the beast through a small nondescript town.

***And the Beasts of the Field...***

*He who fights the monster should be careful lest he thereby becomes a monster.*

*And if thou gaze long into an abyss, the abyss will gaze into thee.*<sup>28</sup>

The final note on audio stress concerns not the sardines packed into commuter trains but wildlife. Recent research has demonstrated that birds are singing louder and at higher pitches to communicate over the raised *noisefloor* of the city soundscape. As urban noise pollution is biased towards lower frequencies, the mechanical sounds of motors and air conditioners, birds respond in protest by shifting register above these frequencies. Urban areas tend to be more spatially open compared to dense woodland settings, where birds often favour lower pitched song to avoid signal reflection by foliage.

As habitual Narcissists manner we overlook the ocean as a vast sound world. It was during the Cold War that US military sonar operators based in Bermuda, charged with identifying Russian submarines, initially identified and documented the singing of whales which eventually prompted the global debate about their sentience. *The Song of the Humpback Whale*, produced by the biologist Dr. Roger Payne was released as an L.P. Record in 1970 and subsequently re-released as a soundsheet in National Geographic's January 1979 edition, sold 10.5 million copies, making it the most popular commercial recording of all time. This soundtrack was the motive force which successfully turned public awareness against the cruelty and avarice of the Whaling Industry.

*The Song of the Humpback Whale* is currently whirling through the commons of outer space broadcasting from the *Voyager I* and *Voyager II* spacecraft for the delight and entertainment of all alien beings, but sadly the Sperm Whale oil still provides lubrication for spacecraft such as the Hubble telescope, cetacean DNA slowly evaporating into the Cosmos.

Whales are sonic beings that rely upon sophisticated long range acoustics for communication and navigation but such fine tuning both serves and imperils them. Immediately after the close of WWII the British equipped a postwar generation of Whale ships with re-cycled military submarine detection sonar to locate whales and then employed ultrasonic nets to entrap their prey.

The militarisation of the whale's sonic world continues with the contemporary legal battles concerning the US Military encroachment of the Deep Channel strata of the oceans, using them for mid and low frequency active sonar detection, but which have lethal consequences for whales. 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 fatalities.

However the final irony is surely reserved for the Japanese whalers, those factory ships are deploying a US military technology, LRAD arrays (Long Range Acoustic Devices) as sonic weapons against the anti-whaling activists onboard Sea Shepherd vessels, intended to cause nausea, distress and hearing damage amongst the activist crew, who thankfully resist and return to their protests.

## ***Conclusion.***

Sonar echoes fade into the deep blue and the military gaze like Narcissus without heeding the words of the sage - *And if thou gaze long into an abyss, the abyss will gaze into thee.*

“Has remaining silent now become a discreet form of assent, of connivance, in the age of the sonorization of images and all audio- visual icons? Have vocal machines’ powers of enunciation gone as far as the denunciation of silence, of a silence that has turned into MUTISM?”<sup>29</sup>

In his essay *La Procedure Silence* Virillio asks if our right to silence, to non-communication has been stripped away under threat of ideological misinterpretation. Which suggests that we have no option but to shout above the volume of the *noisefloor*, which is no longer a subtle background, but has mutated into an audiovisual Tsunami.

But the issue is not one of a competitive individual audibility (or visibility) but a fundamental crisis of ecology in which we face the destruction of our sonic-habitat and as a consequence social cohesiveness. Sadly we are complicit in the surrender of that which once constituted our commonwealth; only to see it dismembered, packaged and sold back in a form that we are assured will satisfy us.

Ensnared in the eternal non-time of myth, Narcissus reaches out but each time the image of his desire dissolves into a shimmering chaos - he continues to stare entranced but bewildered. Echo’s voice travels the aether to reverberate from all directions, a flow of disjointed messages, pleas, endearments and enticements - these voices seem so familiar - haven’t we heard this all before?

## Endnotes.

<sup>1</sup> A term coined by Schafer to denote a sound separated from its physical referent - for example any recording. Schafer, Raymond Murray (1977). *The Tuning of the World*. Random House Inc. ISBN 0394409663.

<sup>2</sup> Michel Chion, *Audio-Vision* 1990 which argues that sound film is a new form of perception which fuses sound with image rather than as distinct channels of communication.

<sup>3</sup> Since alienated labour: (1) alienates nature from man; and (2) alienates man from himself, from his own active function, his life activity; so it alienates him from the species.....For labour, life activity, productive life, now appear to man only as means for the satisfaction of a need, the need to maintain physical existence....In the type of life activity resides the whole character of a species, its species-character; and free, conscious activity is the species-character of human beings. ... Conscious life activity distinguishes man from the life activity of animals. (Marx, 1964, p. 16).

<sup>4</sup> Italo Calvino. *The King Listens* - (Under the Jaguar Sun).

<sup>5</sup> Athanasius Kircher *Ars Magna Lucis et Umbrae* 1646 (the Great Art of Light and Darkness).

<sup>6</sup> Paul Virillio *Vitesse et Politique*, 1977 Editions Galilee and *Esthétique de la Disparition*, 1980 Editions Balland

<sup>7</sup> Procrustes, a figure from Greek mythology possessed an iron bed upon which he invited his visitors to lie. The taller guests who proved too long for the bed were subject to amputation, whilst the shorter visitors were stretched until they fit nicely!

<sup>8</sup> Caliban in *The Tempest* by William Shakespeare.

<sup>9</sup> There is however solid evidence that demonstrates the sharing of both frequency and temporal domains in nature to permit intra-species communication in noisy ecologies.

<sup>10</sup> A large number of these girls are continually doing this work. Each one has a stall to herself, and the jangle produced by a number of girls simultaneously repeating "Mary had a little lamb," "Jack and Jill," "Little Bo-peep," and other interesting stories is beyond description. These sounds united with the sounds of the phonographs themselves when reproducing the stories make a veritable pandemonium. Eighteen women are supposed to have been hired for this work, and cost estimates suggest that they received something on the order of a couple cents per record.

"Edison's Phonographic Doll," *Scientific American* 62 (April 26, 1890), 263

<sup>11</sup> In February 2017 the German Federal Network Agency notified parents that they were obliged to "destroy" any Cayla Dolls in their possession as it constituted a concealed espionage device violating the German Telecommunications Act.[2][11] The agency also considers the Bluetooth device as insecure, allowing connections to Cayla's speaker and microphone within a 10m radius.

<sup>12</sup> Rebecca Solnit, *Wanderlust*, 2000.

<sup>13</sup> Hitler in the *Manual of German Radio* 1937.

<sup>14</sup> Half-Space ~ a term for the hemispherical space that sound is propagated in an outdoor context with no objects to reflect the sound apart from the ground plane.

<sup>15</sup> Plato, *The Republic* 514a - 520a

<sup>16</sup> Francis Yate, *The Art of Memory*, University of Chicago Press, 1966.

<sup>17</sup> cf. the authors own research with the *SonicLandscapes* project and the *AudioNomad Research Group*, developing location sensitive, interactive sonic maps creating Augmented Audio Realities (AAR). This is a system which allows an auditor to experience ambient/local sounds whilst simultaneously overlaying these with additional audio information. Virtual Audio Reality (VAR) 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 in VAR 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 virtual 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) and is thus idea for manifesting intangible heritage or environmental data.

<sup>18</sup> *The Sound of Music* 1965.

<sup>19</sup> It is more difficult for sonic-pilgrims to track down the *misé en scene* for Dr Zhivago, as Boris Pasternak's 1965 book was banned in Russia and so the romantic winter scenes for the popular cinema version had to be filmed in a variety of locations including Finland, Canada and Portugal. The popularity of the original novel is largely based upon the success of the film which ironically has given rise to literary "Pasternak" tours in the Urals.

<sup>20</sup> In a still more embryonic state is our recognition of the evils of the commons in matters of pleasure. There is almost no restriction on the propagation of sound waves in the public medium. The shopping public is assaulted with mindless music, without its consent. Our government is paying out billions of dollars to create supersonic transport which will disturb 50,000 people for every one person who is whisked from coast to coast 3 hours faster. Advertisers muddy the airwaves of radio and television and pollute the view of travellers. We are a long way from outlawing the commons in matters of pleasure. Is this because our Puritan inheritance makes us view pleasure as something of a sin and pain (that is, the pollution of advertising) as the sign of virtue? *The Tragedy of the Commons* by Garrett Hardin, 1968 Published in *Science*, December 13, 1968.

<sup>21</sup> Karl Marx, *Das Kapital*.

<sup>22</sup> Edison in an 1878 interview with the *Washington Post*, conducted at the Smithsonian in Washington DC during his visit to demonstrate his invention, the phonograph.

<sup>23</sup> St. Augustine of Hippo, *Confessions* a series of thirteen autobiographical texts written between AD 397 and AD 398.

<sup>24</sup> Acousmatics (from the Greek Akousma: what is heard) has its origins with the teaching of Pythagoras who concealed himself behind a veil so that his students could concentrate. It refers to electroacoustic music rendered by speakers and projected into the auditorium without the visual attributes of performers or instruments.

<sup>25</sup> Simplex ~ a one way broadcast system (eg Television).

<sup>26</sup> Garth Paine ~ Australian sound artist and composer (<http://www.activatedspace.com/installations/endangeredounds>).

<sup>27</sup> From the Endangered Sounds website.

<sup>28</sup> Frederick Nietzsche,, Beyond Good and Evil.

<sup>29</sup> Paul Virillio, La Procedure Silence 2000 Editions Galilee.