

Echo and Narcissus and the contest for aural space.

Abstract.

In this article, I invite you to journey through the Sonic Commons, a resonant and contested geography that encompasses shared human sonic experiences, public, private, and those imagined through literature. 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 influence a listener's behaviour.

We will detour around the cacophony of the street riot and the strains of the protest song, steering clear of the shockwaves of direct conflict in order to explore the more subtle sonic disturbances affecting our daily life. Our course will examine the inexorable drive towards the privatization and technologization of the public sound realm and the consequent erosion of the sonic commons - but we shall also encounter strategies of adaptation and resistance.

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 the dematerialization. They will demonstrate how sound is detached from its source to be relayed, replayed and reassigned to serve other agencies. In this regard, the love-crossed pair serve as a warning — that our Sonic Commons, like Liberty and Democracy, only exist by dint of eternal vigilance.

Disembodiment: Echo and Narcissus.

*Narcissus now in his sixteenth year began,
Just turn'd of boy, and on the verge of man;
Many a friend the blooming youth caress'd,
Many a love-sick maid her flame confess'd:
Such was his pride, in vain the friend caress'd,
The love-sick maid in vain her flame confess'd.*

*Once, in the woods, as he pursu'd the chace,
The babbling Echo had descry'd his face;
She, who in others' words her silence breaks,
Nor speaks her self but when another speaks.
Echo was then a maid, of speech bereft,
Of wonted speech; for tho' her voice was left,
Juno a curse did on her tongue impose,
To sport with ev'ry sentence in the close.¹*

Echo and Narcissus, their stories forever intertwined since Ovid's retelling of the Greek myth which collides two forms of reflection; Echo the talkative nymph — *yet a chatterbox with no other use of speech than she has now; she could repeat only the last words out of many* — and Narcissus the vain youth who rejects the advances of the nymph and falls in love with his own reflection.

A curse placed upon Echo by Zeus limited her speech to mimic the last words of 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.



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

Echo's voice is a revenant, her pronouncements mere cuts, disjunctions and glitches that constitute an anti-communication — a truly *schizophonic*² speech, dislocated not only from her body but decoupled from discourse and meaning. In many respects, Echo's voice stands as a metaphor for the fate of biological and environmental sounds — Biophony and Geophony, displaced by Anthrophony and appropriated by the technologies of communication, recording and diffusion.

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

*For as his own bright image he survey'd,
He fell in love with the fantastick shade;*

He died at that spot, disconsolate, weeping as the nymph had done, his sobs repeated throughout the woods through the reverberations 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, Narcissus still obsessively sought his reflection in the turbid waters.

Consider the myth of Echo and Narcissus as analogous to the coupling of Audio-Vision³ with their entwined fates transformed by reflection and repetition — as embodied as the copy and its mass production — causing a transfer of meaning from a physical source to the symbolic. The couple struggle in an uneasy asymmetrical relationship that rapidly moves from the material world to the ethereal; both becoming isolated and alienated.

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.⁴

Whilst Marx may have identified alienation as a direct negative consequence of industrial capital and its dehumanizing work methods — with hindsight it may appear that alienation is not a simple by-product at all but one of Capital's principal objectives. From what might have initially seemed to be an unintended side effect, alienation can be recognized as a principal mechanism driving the desire-mill, the motor of commodity capitalism, by creating the existential vacuum that is centripetally filled by goods and services.

The universal ear — the listener as the 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.⁵*

Palaces and Castles are seats of power but their other function is symbolic rather than practical. In his short story *The King Listens*, Italo Calvino imagines a palace as an acoustic panopticon, a surveillance device, and his text image reprises the detailed architectural drawings of Athanasius Kircher, the seventeenth-century Jesuit polymath, who in his *Ars Magna Lucis et Umbrae* ⁶ described and illustrated architectural systems for both listening and communicating — the ability to gather information and send commands in secret. 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 Virilio in his book *Speed and Politics* and *The Aesthetics of Disappearance* ⁷. Traditional Spatio-temporal boundaries have been rendered obsolete by contemporary technology and surveillance which have become a rapidly expanding and ubiquitous practice. We are no longer surprised to learn of state or corporate-sponsored wiretapping, signals interception, acoustic-bugging and the robotic trawling of internet traffic; we unwittingly submit to the location tracking of our mobile phones and remote AI scanning of our facial features — the state and the multi-nationals have replaced the omniscient eyes and ears of god!

The Listening Self.

At a metaphoric level, Calvino's text acts as a metaphor for the unique and centralized subjective position that we all inhabit as individual listeners. Whilst Calvino posits the King at the epicentre, physiologically each of us has no option but to inhabit the centre of a vast and complex web of vibrations that form our sonic environment. Our sensorium demands this of us and of course, there is no better place to be, for we are at the sweet spot; indeed we are the sweet spot of a personal, mobile sonic realm. As R. M. Schaeffer explains in "I Have Never Seen a Sound."⁸

Auditory space is very different from visual space. We are always at the edge of visual space, looking in with the eye. But we are always at the centre of auditory space, listening out with the ear. Thus, visual awareness is not the same as aural awareness. Visual awareness faces forward. Aural awareness is centred. I am always at the heart of the sounding universe. ⁸

Our perception of the world is of course tightly framed and delimited by our senses, which form a type of Procrustes Bed ⁹ upon which all phenomena are forced to comply. This creates the illusion that our worldview is both comprehensive and exhaustive. The 'reality' that our senses perceive only a small portion of the vast electromagnetic spectrum which extends well beyond our perceptual hearth and home is, *ipso facto*, overlooked and perhaps is the foundation of our anthropomorphism. It follows that our subjective experience of the soundscape is total and constant — as it is impossible to conceive of an alternative and objective position or to experience, for example, a profound 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.*¹⁰

As motile organisms, we are neurologically predisposed to seek patterns in our surroundings. Pattern recognition is a core cognitive ability, vital to evolution and survival and is especially important in the human species. Pattern recognition affords us the capacity for prediction. In life, as in art, we take delight in the symmetries, growth patterns and morphologies of the natural world as through them we recognize our formation. This ability suggests that the soundscapes in which we are immersed appear as seamless, natural compositions, balanced and syncopated. However, most are in reality conglomerations of independent sounds. What we perceive as a structured and composed whole is generated by a vast array of largely unrelated sonic events, some intentional, but mostly accidental. These individual sonic sources are spatially and temporally displaced but ultimately, they converge upon our ears and are transformed into a unique, synthetic mix – a soundscape. To complicate matters; individual auditors within the soundscape form yet another spatial matrix and when the two are overlaid; the matrix of sound sources upon the matrix of listeners we create multiple sonic realities. Each auditor experiences the sonic environment as a subtly different version that depends on their relative position; their physiology as well as the focus of their attention, and their propensity to “listen” rather than simply “hear.” This is similar to the testimony of witnesses in a courtroom whose accounts of an event whilst generally similar have subtle differences based on their relative position.

Interpretation & misinterpretation.

Writing in mid-1930 the French psychoanalyst Jacques Lacan described three primary orders in the development of the Ego (the self) — the imaginary order of the mirror stage, the symbolic order of language and law, and the real order of drives — the somatic and unconscious impulses.

The encounter between Echo and Narcissus is star-crossed from the outset — Echo deprived, by her verbal passivity, of a complete sense of self, is driven toward the handsome youth, the Other who will complete her identity. Narcissus is the unattainable object of her desire (a Lacanian

objet petit) but he is trapped in Lacan's *Stade du Miroir* the 'libidinal relationship with the body image' that helps to develop the Ego in early childhood. He refuses all encounters with the Other in a frustrated search for his Ideal self, chasing his fugitive phantom image, which ultimately leads to his dissolution, ironically mirroring the fate of Echo. He dissolves into the earth, his reflection gradually fading; she evaporates into the atmosphere, her echoes attenuated.

These perturbations in the negotiation between the imaginary and the real are recognized as *méconnaissance*, a misinterpretation in which the subject becomes alienated from itself and drifts into the imaginary. In this manner, Echo's sonic reflections are *mis parlées* (misspoken) and received by a listener as *mal entendu* (misheard) her utterances forming a re-ordering of the sonic reality.

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 Shelley's *Frankenstein* is taken aghast by his own reflection, glimpsed in a forest pool — *how was I terrified, when I viewed myself in a transparent pool*. This revelation sets the scene for the mayhem that unfolds as the alienated creature later wreaks his vengeance. The Monster's horrific outward appearance belies his intelligence which is demonstrated by his ability to learn quickly; moving away from the abject towards a human facility. Whilst hiding in a hovel that abuts a cottage he learns to speak solely by spying upon the family conversations within and teaches himself to read after finding three discarded books (Milton's *Paradise Lost*, Plutarch's *Lives* and Johann Wolfgang von Goethe *The Sorrows of Werter*) each volume reinforcing the Monster's sense of alienation, in particular *Paradise Lost* with its narrative of Satan's alienation from God, providing the creature with a powerful metaphor for his own identity.

In yet another tale drawn from Ovid's book of transformations (*Metamorphoses* Book 10) Pygmalion, a Cypriot sculptor who, for want of 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 not upon her outward form but on her voice and accent as the key to social transformation. Eliza's appearances are set aside, and it is the fruit of Doolittle's intensive elocution training with the phoneticist Henry Higgins that reverberates in people's minds. Blood, breeding and class are distilled in this Echo of English class stratification as Eliza reverses the Victorian dictum — for all intents and purposes she is *heard but not seen!*

Promethean-like narratives of life bestowed upon the inanimate flicker between fiction and reality and have proved especially effective when directed at the minds of young 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 frequently the primary vehicle and portal to the mind.



Figure 2. Manufacturing talking dolls at the Edison Labs at West Orange, New Jersey 1890.

In the 1890s the Edison lab produced its own mechanical homunculi, some 7,500 talking dolls that contained miniaturized Edison wax cylinder machines capable of reciting a range of nursery rhyme sound-tracks (of approximately twenty seconds 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, enunciating loudly into the mouth of the mechanical horn of the early Edison wax cylinder recorders as if Echo had recruited a band of wood-nymphs all afflicted with her curse of endless repetition.¹¹

Ultimately the dolls proved to be an economic flop, partly due to their physical awkwardness and mechanical fragility, but moreover, because to the general public, they proved to be 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 primitive automata, ascribing to them a level of sentience that today 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 brainwashing the malleable minds of toddlers. As a consequence, *Cayla* has been sentenced to destruction by the German Federal government.¹² 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 on the grounds of the Edison Laboratory.



Figure 3. Cayla dolls are interactive and hackable!

The innocuous image of a female toddler doll, the simulacrum of a child’s companion is here allied with the digital Echoes generated by search engines, the child who has fallen under the spell of the doll’s echo is caught in a pincer movement of dematerialization and is gradually imprisoned in a web of digital loneliness, where a homunculus replaces human contact and information replaces experience – a real-world manifestation of a Science-Fiction scenario. However, this technological capture of hearts and minds has been well-rehearsed in the preceding century.

The Listening Self and His Masters Voice.

Whilst idealized accounts of listening tend to adopt a neutral or physiological tone it is also evident that in many social contexts listening is colonized by and harnessed to 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. In this historic image, the relationship between dog and megaphone well characterises Edison's original intention that sound recording should be used exclusively as a sonic *memento mori*, forming an archive of the voices of long-deceased relatives. The original painting by the English artist Francis Barraud captures *Nipper* listening to the familiar voice of the dog's original master, the painter's brother Mark Barraud who had died. Francis had noted the particular attention *Nipper* paid to this *memento mori* — a case of Edison vindicated.



Fig.4. 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!

However, the rapid development of technology in the twentieth century has re-cast the image and the H.M.V. headline with powerful metaphoric overtones that suggest a more sinister *modus operandi* for subsequent broadcast media. The exponential acoustic horn doubles as both a musical instrument and the loudspeaker (megaphone) of political massed rallies and carries an entwined double message in which entertainment camouflages the voice of authority. 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.*¹³

Hitler, in the Manual of German Radio 1937.

The manipulation of broadcast media in times of conflict is well illustrated by the history of the Third Reich's industrial production and distribution of the *Volksempfänger* radios, developed by the engineer Otto Griessing at the request of the Nazi Propaganda Minister Joseph Goebbels. Distribution of these cheap and simple radio receivers which were designed to only pick up local German and Austria stations began in 1933 and continued until 1945 (although with ever-decreasing physical substance). Broadcasting in Germany was counterpointed by making listening to allied radio broadcasts a criminal offence from the start of World War II and in many occupied territories radio sets were confiscated and listening to any radio broadcast was made illegal. Albert Speer commented that "Hitler's dictatorship differed in one fundamental aspect from all its predecessors in history. His was the first dictatorship in the present period of modern technical development, a dictatorship which made the complete use of all technical means for domination of its own country. Through technical devices like the radio and loudspeaker, 80 million people were deprived of independent thought. It was thereby possible to subject them to the will of one man." An obsessive (and Narcissistic) monologue constantly echoing in the minds of the *Deutsches Volk*.

None of this was lost on George Orwell in his classic novel *1984* published just four years after the close of World War Two¹⁴. *Don't you see that the whole aim of Newspeak is to narrow the range of thought? In the end we shall make thoughtcrime literally impossible, because there will be no words in which to express it.* Ironically Orwell's *cri de cœur* now appears to function as a popular manual for societal manipulation and control as promulgated by social media and political spin-doctors.¹⁴

Sound and Architecture.

As Calvino suggests in "Under the Jaguar Sun", architecture is the site where we first encounter a profound transformation in our experience of sound. As a species, we evolved in the *half-space* of the savanna¹⁵ an open-air environment lacking the conditions that could create acoustic reflection and reverberation. By contrast the enclosed spaces and hard surfaces of architecture function to propagate and convolve direct sound to form reflections and reverberations. This is the work of *Echo* and the pre-technological origin of *Schizophonia*. It is within architecture that we realize 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 are fundamental; *primaeval*.

The uneven contest between the optical and the auditory is evident in the narrative of Plato's Cave¹⁶ which 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 the captives' sole means of interpreting reality but he overlooks the other perceptual cues; the crackle of burning wood and 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 centralized surveillance and 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. Knowledge of the ability of architecture to modify acoustics is however widespread in the ancient world. The Meso-American ziggurats and ballparks are structured to generate striking echoes that emphasise key elements of ritual events The talking Buddha statue of Sukhothai (Thailand) which contains a chamber for an enunciating monk, amplifies the power of the image by investing it with a living voice (in a manner reminiscent of the Wizard of Oz). The polyvalent structures of European Gothic cathedrals are calculated to generate massive reverberation times and thus deliver a powerful experience of omnipresence and immersion. These are all examples whereby architecture is intentionally employed to modify acoustics to create affective soundscapes that reinforce a hierarchy of power. As a corollary the sounds transformed by the physical and textural characteristics of architectonic space become a significant and inseparable factor in our perception and memory of, particular architectural spaces – as such the sound of a place mnemonically represents it.

Architecture, memory and the voice.

Human memory processes are mediated by, or indeed dependent upon, a physical sense of and orientation within space — our memory is structured around associative triggers, sensory experiences, odours, sounds and music but also physical structures, buildings, landscape and topography. Architecture has long been employed as the matrix within which mnemonic objects reside, specifically vocal communication. In “The Art of Memory”¹⁷ 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 visualizing an architectural interior, real or imaginary, the speaker might take a virtual walk — 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 memorizing 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.

Versions of the Memory Palace are reprised in contemporary location-aware audio technologies which 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 tagged to virtual coordinates.¹⁸

Recent neurological research¹⁹ has found that geographic location is a central feature in the processing of memory, managed by the hippocampus, which employs a complex network of place, grid and border cells to spatially situate memories. Thus, our sense of place, of space infused with meaning, is a product of the deep neuronal structures within our brain; performing an analogical linkage between real-world loci and our internal physio-electro-chemical spatial coding.

Therefore it is unsurprising that in traditional cultures where the forms and textures of the landscape are understood as sentient, meaning is inscribed directly into geographical space — as a living palimpsest of cultural memory. In Australian society, the concept of the *Songline* (a term widely coined but little understood beyond Indigenous communities) is an example in which country is *sung-up* in a re-tracing of the ancestor spirits that created the land and its inhabitants. In cultures where there is no differentiation between the spiritual and quotient, these *Dreaming Tracks* can be navigated by singing the song cycles in-situ re-creating and thus maintaining the connection between topography and the creation stories in a network across the continent – a vast and ancient Memory Palace activated by sound, voice and dance.

Genius Loci — Sounds and Place.

Sounds and their relationship with place form a complex matrix of meaning. Sounds are neither neutral, pervasive nor necessarily geographically mobile; one of the principal tools of the discipline of Acoustic Ecology is the identification of *Keynote* sounds which represent the sonic *Genius Loci* (or spirit of place) which are deeply enmeshed in the environment. As distinct from the culturally embedded *Songline* the *Keynote* sound does not necessarily contain an inherent human narrative but is a direct acoustic product of an environment; one that is habitual, identifiable and persistent. As such *Keynote* sounds constitute an aural fingerprint of a location forming a baseline acoustic memory object, much like the collocation of spoken word with the imaginary architectural spaces of *Ars Memoria*.

A Commonwealth of Sound; Silence is Golden.

We are set to traverse the Sonic Commons, a contested geography crisscrossed by unwanted noise, soothed by sweet airs and where we will perhaps find refuge in silence.

*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 popular 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. However, this is a misunderstanding — the Commons were never conceived as a free-for-all no man's land, but were a carefully and collectively managed resource providing sustenance to the 'Commoners' – a physical zone set apart from the dominant economic centre; tolerated for pragmatic reasons by the Imperium (Church, Lord and King) as a zone of marginal economic value for, albeit regulated, collective use. In effect the Commons functioned as an economic safety valve, affording a subsistence to the poor. However, the status of the Commons was rapidly eroded in the Anglo-Saxon world by the introduction of the Enclosure Movement which privatized farming and dismantled the system of 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. The 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 a physical or environmental site but rather as culturally shared and free assets, supported by collective and collaborative action. The essential characteristic remains in that they are non-commodifiable and non-commercial but nevertheless productive assets. Our collective amnesia regarding the historical destruction of the commons and the public rights associated with them is analysed by Garrett Harding in his "Tragedy of The Commons" where he states:

"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 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?"²⁰

I can breathe freely now the rain has gone.

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

The atmosphere, and likewise its chemical partner the ocean, are under increasing stress which manifests negatively in the health of the biosphere. As a direct consequence, the acoustic environments that most of us inhabit are suffering powerful forms of erosion and depletion. No longer can we by default, experience the small and dynamic sound of natural biological systems as they are blanketed under the 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 which are deeply embedded in our psyche are the casualties of this acoustic species loss. Whilst the destruction of the physical commons is clearly apparent in the loss of public access to open space (due to urbanisation and privatisation) the losses of the aural commons are characterised by the encroachment of anthropogenic noise upon the biological sounds of the environment (including direct human speech) are much less apparent. In his address "Silence is a Commons" published in 1983 Ivan Illich argues that direct human speech constitutes a fundamental commons which is being degraded by the increasing mediation of machines:

"Just as the commons of space are vulnerable, and can be destroyed by the motorization of traffic, so the commons of speech are vulnerable, and can easily be destroyed by the encroachment of modern means of communication. The issue which I propose for discussion should therefore be clear: how to counter the encroachment of new, electronic devices and systems upon commons that are more subtle and more intimate to our being than either grassland or roads — commons that are at least as valuable as silence. Silence, according to western and eastern traditions alike, is necessary for the emergence of persons. It is taken from us by machines that ape people. We could easily be made increasingly dependent on machines for speaking and thinking, as we are already dependent on machines for moving. Such a transformation of the environment from a commons to a productive resource constitutes the most fundamental form of environmental degradation".²¹

Ten years later this thematic is taken up by Ursula Franklin in her address to the First International Conference on Acoustic Ecology in 1993 "Silence and the Notion of the

Commons.”²² Franklin reiterates Illich’s fears that the mechanical and electronic are displacing the fundamental vis-à-vis and the imaginative space so necessary for creative development: “And in many cases, the silence is not taken on voluntarily. This is the form of forced silence that I am afraid of. It is not only the silence of the padded cell, the silence of solitary confinement, but it is also the silencing that comes when there is the megaphone, the boombox, the PA system, and any variation in which sound and voices are silenced so that a planned event can take place. Silence is being taken out of common availability”.

Franklin also introduces the concept that silence is a vital *a priori* condition for enabling creativity and spontaneous action:

...a silence that is an enabling condition, that opens up the possibility of unprogrammed, unplanned and unprogrammable happenings...

The depletion of common ground, of the possibility of an authentic vis-à-vis, is echoed in the writings of Rebecca Solnit...*we are experiencing the dematerialization of everyday life principally via the forces of suburbanization and automobilization...*²³ which points to the atomisation of community life and the collapse of the social contract. Much in the same manner Paul Virilio, in his serial analysis of the global effects of speed and telematics, has developed a critique which suggests that geopolitical boundaries are dissolved by the speed of electronic communications, such that political and democratic processes are robbed of the time they need to function as they once did in the vocal democracy of the Agora and Pnyx of ancient Greece. Both Illich and Franklin share the view that the vis-à-vis provides a context for creativity, spontaneity and the conditions for a dialectic process; conditions that we appear to have largely sacrificed by adopting the echo chambers of electronic communication and passive consumption as opposed to active contribution.

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.*²⁴

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 complex ecology of organic music. As previously stated, alienation can be interpreted not simply as a side effect of Capital and the mass-production of commodity goods, but as a fundamental strategy tasked with creating an existential void to be (temporarily) assuaged by the goods it produces. The strategy of consumer pacification is clearly outlined by Max Horkheimer and Theodor Adorno in their 1947 work

“Dialectic of Enlightenment”²⁵ in particular the chapter "The Enlightenment as the deception of the masses" which recognises the *Kulturindustrie* as part of the standard industrial *modus operandi* and as such is inimical to the *ars gratia artis* of so-called “authentic culture.”

The watershed for voice and music is that *schitzophonic* 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 tongue-less, 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.*²⁶

Contrary to Edison’s wishes and predictions, the phonograph was destined for purposes other than the serious business and archival usage 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. Such inexorable mass-market distribution had been previously rehearsed by the propagation of the sewing machine and subsequently the bicycle, both items 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 failing to recognize the enormous potential for ‘trivial’ uses. After establishing the viability of the phonograph Edison turned his attention to the electric light bulb, leaving other players to steer the future of audio recording; the genie was out of the bottle.

Conclusion.

In his essay *La Procedure Silence* Paul Virilio asks if our right to silence, to non-communication has been stripped away under threat of ideological misinterpretation, suggesting that we have no option but to shout above the volume of the noise floor, which is no longer a subtle background, but has mutated into an audio-visual Tsunami.

*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?*³⁴

But the issue is not one of competitive individual audibility (or visibility) but a fundamental crisis of ecology in which we face the destruction of our environment and as a consequence both

our sonic habitat and social cohesiveness. Sadly, we have been complicit in the gradual 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 — as the BBC “Dr Who” series would have it — *Resistance is futile*.³⁵

A riposte that counters the meme is *Resistance is fertile*. In psychoacoustics, there is an axis that runs between *passive hearing* and *active listening* — where although the sound environment may be identical the process of perception is suppressed in the former and radically enhanced in the latter. Listening, like many other acquired skills demand the investment of energy and time and the benefits are directly proportional to the effort. To listen in the active mode is to re-balance the passive/active fulcrum affording a degree of control over a chaotic and technologized soundscape by providing the ear with a critical, discerning and often sensual perspective.

Narcissus reaches out to caress the image of his desire but each time it dissolves into shimmering chaos; he continues to stare entranced but bewildered. Echo’s voice travels through the forest to reverberate from all directions, a flow of disjointed messages, pleas, endearments and enticements. Our guides are trapped in the eternal non-time of myth, doomed to endlessly repeat actions that ensnare them in loops of arrested development — thankfully we do have a choice and are free to learn from their fate, to choose to break the cycles of passive reception and obedient audition – to speak clearly and directly and to listen deeply.

Endnotes.

- 1 Ovid, *Metamorphosis*, Book 3. Translated, Sir Samuel Garth, John Dryden, et al
2. A term coined by Schafer to denote a sound separated from its physical referent - for example, any recording. Schafer, Raymond Murray, *The Tuning of the World* 1977 Random House Inc. ISBN 0394409663.
3. Michel Chion, *Audio-Vision*, 1990 argues that sound film is a new form of perception which fuses sound with image rather than as distinct channels of communication.
4. Karl Marx, *Das Kapital*, 1st published 1867.
5. Italo Calvino, *The King Listens* in *Under the Jaguar Sun*, Vintage, London 1993.
6. Athanasius Kircher, *Ars Magna Lucis et Umbrae* (the Great Art of Light and Darkness) 1646.
7. Paul Virilio, *Vitesse et Politique*, Editions Galilee, 1977.
8. Schafer R. M. *I have never seen a sound*, *Canadian Acoustics*, 37(3), 32-34. 2009.
9. 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!
10. William Shakespeare (Caliban) in *The Tempest* 1610.
11. 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

12. 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 insecure, allowing connections to Cayla's speaker and microphone within a 10m radius.

13. Adolf Hitler, *The Manual of German Radio*, 1937.

14. George Orwell, 1984, Secker and Warburg, UK. 1949.

15. Half-Space ~ a term for the hemispherical space where sound is propagated in an outdoor context with no objects to reflect the sound apart from the ground plane.

16. Plato, *The Republic* 514a - 520a

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

18. cf. the author's 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 ideal for manifesting intangible heritage or environmental data.

19. Julija Krupic, Marius Bauza, Stephen Burton, John O'Keefe, *Framing the grid: effect of boundaries on grid cells and navigation*, *J Physiol* 594.22 (2016) pp 6489–6499

20. Garrett Hardin, *The Tragedy of the Commons*, published in *Science*, December 13, 1968.

21. Ivan Illich, *Silence is a Commons*, *The CoEVOLUTION Quarterly* Winter 1983.

22. Ursula Franklin, *Silence and the Notion of the Commons*, *The Soundscape Newsletter* 07., January 1994.

23. Rebecca Solnit, *Wanderlust*, Penguin, 2000.

24. Karl Marx, *Das Kapital*, 1867.

25. Max Horkheimer and Theodor Adorno, *Dialectic of Enlightenment*, Querido Verlag 1947.

26. Edison in an 1878 interview with the Washington Post, was conducted at the Smithsonian in Washington DC during his visit to demonstrate his invention, the phonograph.
27. Paul Virilio, *La Procedure Silence*, Editions Galilee, 2000.
28. The “Resistance is Futile” meme was coined by *The Master*, a Time Lord in the BBC Doctor Who series season 14, episode 9, "The Deadly Assassin", October 1976).

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