

Endangered Sounds

Silence as Sonic Exploration

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In early 2001, NASA announced they had captured an *echo of the Big Bang*!!¹

I have in my head an image of a wind beaten astronaut hanging out a porthole of a distant space ship, test tube in hand, swinging madly at arms length to capture a sample of the echo, an invisible artefact identifiable only by sophisticated sensors onboard. Once gathered, this sample is corked, labelled and safely archived. Of course this is a phantasmic vision, but it was my initial response, and stands as the inspiration for the Endangered Sounds project. Of course the Wilkinson Microwave Anisotropy Probe (WMAP) was a highly sophisticated, and un-manned probe, designed to measure cosmic background radiation:

Microwave radiation from two spots on the sky roughly 140° apart and feed it to 10 separate differential receivers that sit in an assembly directly underneath the optics. Large "elephant ear" radiators provide cooling for the sensitive amplifiers in the receiver assembly. The bottom half of the spacecraft provides the services necessary to carry out the mission including command and data collection electronics, attitude (pointing) control and determination, power services and a hydrazine propulsion system. The entire observatory is kept in continuous shade by a large deployable sun shield that also supports the solar panels.(NASA, 2001)

This NASA discovery caused me to think about all the sounds that have become extinct. In defining 'extinct' sounds one immediately starts collating a list of long forgotten sonic artefacts, the sound of milk bottles clinking, horses pulling carriages through the streets, the speaking of lost languages to name but a few, but, there is another less obvious category which deals with all the sounds that have been removed from the public domain through the securing of Sound Marks and Patents. The Endangered Sounds project started at this point, by seeking to define how many sounds had been define as Sound Marks, and what kind of sounds they were. In collaboration with Media Arts Lawyers in Melbourne, a list of Sound Marks in Australasia and the USA was collected and published on the project website² in 2003.

¹ http://map.gsfc.nasa.gov/m_mm/ob_tech1.html

² See <http://www.activatedspace.com/Installations/endangeredsounds/>

The *echo of the Big Bang* also caused me to think about ‘sonic residue’, the sounds that continuously surround us, which we subconsciously filter out. Selective hearing is an important human psychoacoustics skill, allowing us to focus on points of interest in the modern noise-ridden environment. But, selective hearing also means that we don’t often analyse or question the sounds that make up our aural environment (Schafer, 1986); we don’t question the introduction or removal of sounds from that environment (Schafer, 1993), and we don’t consider our right to control the aural environment, or the rights of others to influence the shared aural environment.

NASA explained the *echo of the Big Bang* as a detailed soup of noise that we hear all the time. It is the noise we hear when in a very quiet room, the ringing in the ears that like a maternal spirit, envelopes even the sound of our body operating; our breath, our heart beat, our eyes blinking...it is inescapable, but never consciously heard. It is a sound we can’t escape. Of course this is popular Science, because in actual fact the sonic memory is in the microwave bandwidth, well beyond the range of human hearing, but perhaps not beyond the hearing range of other animals that inhabit the earth, in which case, what do they hear?

I find the thought that this sonic imprint dates back to the very origin of our universe rather profound. It is fundamental to the vibration patterns of all perceivable matter.

Giant sound waves propagated through the blazing hot matter that filled the universe shortly after the big bang. These squeezed and stretched matter, heating the compressed regions and cooling the rarefied ones. Even though the universe has been expanding and cooling ever since, the sound waves have left their imprint as temperature variations on the of the afterglow of the big bang fireball, the so-called cosmic microwave background. (Chown, 2003)

So, is there no Silence? Murray Schafer(Schafer, 1986) mentions that:

In the past there were musted sanctuaries where anyone suffering from sound fatigue could go into retirement for recomposure of the psyche. It might be in the woods, or out at sea, or on a snowy mountainside in winter. One would look up at the starts or the soundless soaring of birdcraft and be at peace.

He has an unshakable commitment to humans having an inalienable right to stillness as part of an unwritten code of human rights. There is a great deal of anecdotal evidence that the sonic environment is an essential part of our experience of the word, and crucial to our health and wellbeing(Schafer, 1969). This is of course hardly news to any of us, we use our aural skills every day of our lives, depending on them for our survival. The readership of this journal are unlikely to be depending on their hearing skills in the same way that our distant ancestors might, to find food within the thick ground cover of a forest, or high up in the tree canopies, to avoid enemies or predict danger, but the sonic environment, although given less privilege in our modern world than the visual, is inarguably a major and concrete part of our life experience.

There has been much academic discourse around the issues of soundscape, the sounds that formulate the sonic environment we inhabit, weather the source is natural (a bird call, the wind whistling through a yacht mast or rustling the leaves, the sound of a brook or waves on the beach) or artificial, man-made(Attali, 1997). The artificial sounds formulate the majority of those we can bring to mind and often draw

pejorative comment. Attali was convinced that the very sonic representation of industry was a marker for a new economic rationale.

All sounds are ephemeral - they occur only for an instant, and are experienced more through our recollection than in the moment. This ephemerality leads to a lack of custodial awareness, nonchalance with regard to change, to degradation, an indifference to the rising intensity of noise and sonic interference in our environment. We all agree that a quiet country ambience - the brook, the bird call (no crows for me though), the bees and insects, crickets etc. - calms us, makes us feel connected to both ourselves and the earth, proffering up a holistic perhaps healing environment. A commercial industry has grown around packaging these soundscapes as meditation aids, transporting the experience of these peaceful rural experiences to the headphones of a commuting worker in Tokyo, London or New York, or the executive, the merchant banker driving home on the expressway, shedding the days tensions.

John Cage went into an anechoic chamber (a specially treated room where no sound travels) to explore the concept of silence. He heard two sounds, one low in frequency and one high.

When I described them to the engineer in charge, he informed me that the high one was my own nervous system in operation, the low one my blood circulating.

Cage concluded

There is no such thing as silence. Something is always happening that makes a sound.(Cage, 1968)

All sound consists of vibrations. These vibrations freely permeate the built environment, with little regard to its construction, or the desires of its inhabitants. The idea that sounds common in the public domain, may be contained, compartmentalised and owned is therefore a very dubious proposal. However, many sounds related to product branding and its associated marketing are being patented or protected through Sound Marks.

Examples of Sound Marks include

- the sound of the famous Tarzan yell (Edgar Rice Burroughs, Inc)
- the spoken letters “AT & T” (AT&T Corp.)
- the melody “Sweet Georgia Brown” (Harlem Globetrotters International, Inc.)
- a series of five musical notes written on the Treble clef in the key of C major (Deutsche Telekom AG)
- recorded sound of the liberty bell ringing (Bulletin Company)
- exhaust sound of Harley-Davidson motorcycles, produced by V-Twin (Harley-Davidson, Inc.)
- the sound of a thunderclap (Beacon Broadcasting Corporation)

In Australia, some examples are

- the words “Ah McCain” followed by a “ping” followed by the words "you've done it again". (McCain Foods (Aus.) P/L)
- the sound of the word Yahoo sung in a yodelling style (Yahoo! Inc)
- the AFL siren (Australian Football League)

It seems absurd to patent a phenomenon that can only exist in the public domain, and which propagates beyond its immediate surroundings into the greater public realm. Furthermore, these sounds are legally excluded from mechanical recording and reproduction, so even though they pass through a public medium, air, and of their own accord make their way to my microphone, I am not allowed to replay the captured sound image, as it simulates a privatised, protected sonic entity. This level of control is not even applied to public figures and celebrities in public spaces.

It could be argued that these Sound Marks simply provide the same protection afforded any musical or other artwork, design or through the copyright laws. However, the way in which they are distributed is highly controlled. A Harley Davidson may be ridden through virtually any community in any country at any time of the day. The resultant exhaust noise may be welcome or unwelcome, none the less it will intrude on the public domain in a way that is beyond the control of those present. Similarly with the right wind blowing, the AFL siren at any major football ground in Australia will travel well into the city. It will enter the private domain of city residencies as well as public space, and it does so as a protected entity that through its branding promotes its owner.

The question as to how these sounds can be defined, and sanctioned, when representing only a small entity in a greater aural environment requires exploration.

The recording of the *echo of the Big Bang* should ring some bells for us; the very sounds currently legally protected by the Sound Mark mechanism may also be recorded as echoes in thousands of years' time, part of the ephemeral lattice of past existence.

We should be asking ourselves how then the sounds we release into the environment attribute to the degradation of the sonic environment that Murray Schafer sees as so important to our psyche. Are we generating an increasingly complex silence (Cage, 1968)? Are the sounds collecting into a timbral lattice that will become more and more intense, making it increasingly hard to find the peace and quiet that Schafer sees as part of an unwritten code of human rights?

Experiencing Sound

In line with these questions, and as the Endangered Sounds project is examining the importance of the freedom of sound, its cultural, geographical and architectural influences; its increasing privatisation, and the lack of contemplation around the long term effects of this trend, I would like to put forward a couple of thoughts and personal references about sonic experience.

When watching the film *Russian Ark* recently, in a scene in which a formal diplomatic ceremony is taking place – there is a ceremony, where the long hall is lined on each side by 3 rows of soldiers resplendently dressed in formal regalia. On what was an invisible signal to me, they all drew their swords - one synchronized

metallic swish rung out through the reverberant, marble, granite lined hall - this is not a sound I hear in my everyday life. It may not have been a sound familiar to the commoners of the Russian society, in fact it may have been familiar only to a certain strata of Russian elite - perhaps even for them it was associated with a particular season of formal events, part of a larger context and almost certainly not cause for particular comment within their ranks.

Another interesting reference appears in the children's book, *The Phantom Tollbooth* (Juster, 1962), in which a small boy Milo, with his companions Tock (a dog with a large clock on his back) and the Humbug experience a number of sonic environments on their journey, from a market where you purchase the words you want to use, which after some meddling closes down, removing speech from the local inhabitants, to an experience in the Valley of Sight, where they encounter an enormous orchestra, a sonic generator of the colour in the world. The orchestra is conducted by the great Chroma, who says

But what pleasure to lead my violins in a serenade of spring green or hear my trumpets blare out the blue sea and then watch the oboes tint it all in warm yellow sunshine. And rainbows are best of all – and blazing neon signs, and taxicabs with stripes, and the soft, muted tones of a foggy day. We play then all. (Juster, 1962)

They pass on through the Valley of Sight to the Valley of Sound, in the foothills of the Mountains of Ignorance, just north of Expectation. Here in the Valley of Sound, the over zealous creation of noise as a cure-all by Kakofonous A. Dischord, Dr of Dissonance had brought about a gathering of all sounds so that the valley fell silent. When they drive into the valley they can't initially tell what has changed, but then Milo,

... suddenly he realized what it was, for Tock was no longer ticking and the Humbug, although happily singing, was doing so in complete silence. The wind no longer rustled the leaves, the car no longer squeaked, and the insects no longer buzzed in the fields. Not the slightest thing could be heard, and it felt as if, in some mysterious way, a switch had been thrown and all the sound in the world had been turned off at the same instant. (Juster, 1962)

The reason why this silence had befallen the valley points to some interesting corollaries with this investigation into the privatising of sounds through Sound Marks:

At a place not far from here, ... where the echoes used to gather and the winds came to rest, there is a great stone fortress, and in it lives the Sound-Keeper, who rules this land. When the old kind Wisdom drove the demons into the distant mountains, he appointed her guardian of all sounds and noises, past and present, and future.

For years she ruled as a wise and beloved monarch, each morning at sunrise releasing the day's new sounds, to be borne by the winds through the kingdom, and each night at moonset gathering in the old sounds, to be catalogued and filed in the vast storage vaults below. (Juster, 1962)

The scribe providing this explanation (for his speech falls silent), goes on to explain how more and more people came to settle in the valley and,

brought with them new ways and new sounds... But everyone was too busy with the things that had to be done that they scarcely had time to listen at all. And, as you know, a sound which is not heard disappears for ever and is not to be found again.... Then Dr Dischord appeared in the valley ... and promised to cure everyone... [but] he cured everybody of everything but noise. The sound-Keeper became furious. She chased him from the valley for ever and then issued the following decree:

FROM THIS DAY FORWARD THE VALLEY OF SOUND SHALL BE SILENT. SINCE SOUND IS NO LONGER APPRECIATED, I HEREBY ABOLISH IT. PLEASE RETURN ALL UNUSED AMOUNTS TO THE FORTRESS IMMEDIATELY. (Ibid)

If we think about the medium of transmission for these sounds, we realise a few salient facts:

1. The air carries all sounds
2. There is no way to isolate one sound from another - to protect some people or environments from particular sounds or deliver specific sounds to individuals (with the exception of headphones of course)
3. This common carrier, the air is public property - it moves globally and is not therefore controlled by national or factional boundaries
4. The producers of sound are not bound by caveats on the use of the air, and
5. Discussion and laws relating to noise pollution look at the symptom, the noise and not at the carrier, the air.

The above considerations brings up interesting questions with regard to the concept of privatised sonic entities – this conundrum forms the central point of interrogation in the Endangered Sounds Project.

Investigation Process – Methodology

The Endangered Sound project includes three forms of symbolism, and involves an international cast of volunteers in its creation. It currently includes:

1. A web portal listing all the Sound marks listed in Australasia and the USA, and negotiations are underway to expand that to include the EU.
2. A collection of Sound Marks in specimen tubes with caps and labels gathered internationally by people who volunteer to *collect* samples of Sound Marks in their environment.
3. A number of glass vacuum desiccator vessels containing a small loud speaker and sound reproduction chip suspended in a vacuum, reproducing Sound Marks in the vacuum, notionally breaking the law, but as sound will not travel in a vacuum the gallery visitors will not hear the sound – what then is the jurisdiction of the Sound Mark?
4. A register of sounds that have become extinct in the last decade.

All these aspects of the Endangered Sounds project are here at BEAP, and I encourage people to add to the file index of extinct sounds, to search the web listings of Sound Marks and volunteer to collect Sound Marks in their local environment, and submit them for exhibition. Volunteers are sent a specimen tube and cap and label, asked to place the open specimen tube close to the sound source, thereby capturing the sound event in documentation and the air through which it travelled.

Conclusion

So, how does all this fit into a Biennale for Electronic Arts?

The Sound-Keeper from the Valley of Sound, apart from having a passion for collecting, understands the need to keep sonic sources identifiable and unique, she comments:

If we didn't collect them... the air would be full of old sounds and noises bouncing around and bumping into things. It would be terribly confusing, because you'd never know whether you were listening to old ones or a new one.

The collection, storing and transmission of sound has become a major industry. If we examine the growth of the industry surrounding Sound Marks and Patents, we realise it is directly linked to the invention and increasing prevalence of means of recording, reproduction and broadcast/transmission of sound.

Distribution mechanisms for realtime sound have grown almost virus like internationally. With the aid of an internet connection, we can listen to any street corner in almost any part of the developed world, seven days a week twenty-four hours a day. In fact, we could create new hybrid soundscapes consisting of hundreds of streetscapes for around the world in this very room,

a transposition of the sonic signature of numerous distant environments onto another, a kind of cross-synthesis, a convolution of time, space and identity. The development of electronic means of sound recording, reproduction and transmission has allowed a cross-pollination of sonic environments to a degree never before imaginable. It goes beyond the audiophile recording of the distant and never visited land to the realtime transposition of momentary, everyday events, not the rarefied recording of a quiet dawn or dusk, the prepared and protected sonic artefact, where the sound recordist like the photographer waits for the right moment to capture the idealised artefact, but a casual, ad hoc sonic signature constructed from a complex of the landscape, the architecture and the cultural activity of each site.

What does this mean? It seems to point to a reduction in the authenticity and uniqueness of these sonic encounters, a kind of commodification of the very sonic tapestry in which we are immersed throughout life, the very sonic tapestry illuminated by the NASA's *echo of the Big Bang*.

Coming back to the specifics of the Sound Mark, we can see that sound diffusion has taken on a whole additional layer of meaning, and yet, the registering of Sound Marks essentially privatises a sound, elevating it to a protected sonic artefact that can be released by its owners without control, in any part of the globe. The Endangered Sounds project fundamentally seeks to ask questions about why there are no controls? Why is there no responsibility attached to these privatised sonic artefacts or their retainers?

Please join me in contemplating these points and engage in the project by volunteering to collect Sound Marks in your local environment, and registering sounds in the Lost Sound index.

Finally, I would like to thank NASA for the recording of the *echo of the Big Bang*, the inspiration for the journey of enquiry and discovery.

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