



(Screenshot from BBC's "[Primary History: World War 2, The War Effort](#)")

Bells into Networks

Byron Peters

Bells — Cannons — Bells

Melt the bells,
melt the bells,
And when foes no more attack,
And the lightning cloud of war
Shall roll thunderless and far,
We shall melt the cannon back
Into bells.

— General P.G.T. Beauregard, "Melt the Bells"
(1862)^[1]

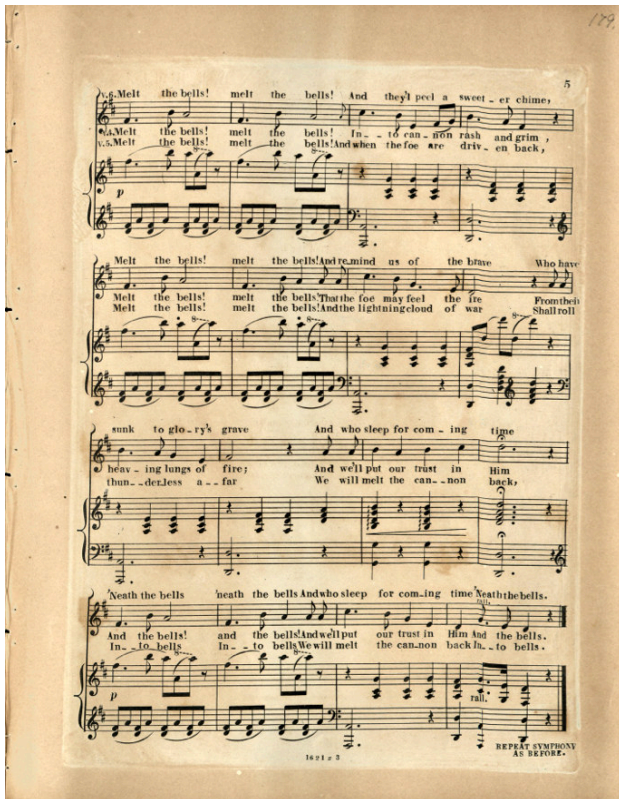
The thermostat is a data Hoover. The bank card, a transit pass. The sound system is a global emotional memory database. Eye-movement becomes a commodity bought and sold to produce more eye-movements. They say the future will hold DDoS attacks mounted from vast armies of interconnected fridges.^[2] The material relations between people become social relations between things, now post-produced, cut, optimized, tracked, and rented from a cloud.

Long before the rise of the networked extraction process termed 'the internet of things,' there was an extensive history of communicative objects becoming other communicative objects.^[3] In today's increasingly mandatory role-playing — where the networked individual becomes a mediated step in a supply chain of things — the bell becomes the cannon, and back again.

In this high-speed game of back-and-forth, objects risk becoming interchangeable, insofar as they

serve the same ultimate purpose. A life of convenience and efficiency resembles a surplus-serving Gesamtkunstwerk, united by capital accumulation, barely indecipherable in its parts. To quote Benjamin Bratton: vast genres of objects and users lose their specific identities, instead forming “the body of an accidental megastructure,” vertically arranged.

For those who seek to hold this vertical geography: space is information. To parse this, we could turn to McLuhan’s old adage — space is acoustic — when it, like sound, delivers a “discontinuous co-presence of everything.”^[4] Like capital, sound moves through walls. As with present-day networks, sound can permeate both listeners and bystanders with an ill-defined and tenacious geography. Of course, for space (‘acoustic,’ or otherwise) to be controlled, it need not require the amplifying effects of a digital environment.^[5]



(Sheet Music, “Melt the Bells”.)

The church bell is an example of what R. Murray Schafer calls the “Sacred Noise” — a sound unlike others wherein “its proprietor is licensed to make the loudest noise without censure.”^[6] The

bell unifies; it is an unbounded demarcation of culture and belief.^[7] In reference to the bells of Christianity and Islam, Schafer describes the bell as a marker of the universal, “enforcing the idea that there is no private space in God’s world.”^[8] Generally, as Christine Delphy has written on religious freedoms and exclusions, dominant universals (‘un universalisme si particulier’) often attempt to encompass the whole of humanity by only a part of humanity.^[9]

For much of the 20th century, the unifying ring of the proverbial church bell sounded more like Muzak. Branded the “security system of the 1970s,” Muzak, in its passive jouissance, re-energizes spaces, filling them to sensorial completion.^[10] Its gentle, repetitive throbbing not only mimics, but connects and re-delivers — as Jacques Attali would have it — the repetitive labour and mechanical reproduction that defines the paradigm of consumer goods. It is an omnipresent, yet sonically quiet battle cry for the ideologies of individualization and consumption.^[11] As with the bell, it tunes social space.

John Cage, in his proposal titled Silent Prayer from the 1940s, expressed a desire to sell canned silence to Muzak Co.^[12] It was arguably his first consideration of intentional silence, pre-dating 4’33” by almost a decade. But unlike the latter presentation within a sanctioned context of performance, Silent Prayer’s potentiality resembles a situationist detournement or a 1990s culture jamming exercise — the instrumentalization of canned silence, or silence as intervention.^[13] Cage’s silence is full: the bell becomes a sort of non-cannon, by the virtue of it being both purchased and empty.^[14]

‘Easy’ listening music need not always be so. It could be taken up for other means — we might think of how the smooth soprano works of Kenneth Gorelick (“Kenny G”) briefly became a symbol of dissent and freedom during the Hong Kong Umbrella Movement.^[15]



(Kenny G and Hong Kong Umbrella Movement. [Source](#).)

Perhaps we could imagine the tune “Going Home” (famously played at the closing time of shopping malls throughout China), as smooth jazz amplified at high volume: a weaponized soundtrack aimed towards advancing riot police. The bell becomes a cannon. After the Chinese government indirectly accused Gorelick of meddling in official Chinese affairs, his backpedaling included the deletion of Twitter photos, and the following statement: “I am not supporting the demonstrators as I don’t really know anything about the situation...”^[16] The cannon becomes a bell again.

The last stanza in Beaugregard’s 1862 song “Melt the Bells” describes the return to its original form as a productive, nationalistic remembrance: “Melt the bells, melt the bells, And they’ll peal a sweeter chime, And remind of all the brave, Who have sunk to glory’s grave...”^[17] In the return to peacetime, the reforging of violent objects often has a hopeful character, as symbolized in the biblical phrase “Swords into Ploughshares” — be it cited by young artists in war zones,^[18] installations at the Venice Biennale,^[19] rhetoric around drone demilitarization,^[20] nuclear disarmament groups,^[21] or even the recent book title of Ron Paul.^[22] But as the latter example might elucidate, the sword and ploughshare have a tendency to act as opposite symbols that structurally necessitate each other. Worse, the ploughshare might secretly act as its former self, now at home.

Guns — Fences — Guns



(World War Two, London, England, 7th July, 1940. Workmen removing the metal railings in the Mall around Marlborough House so it can be used as scrap for war purposes. Photo by Popperfoto/Getty Images.)

“For three years or so the squares lay open, and their sacred turf was trodden by the feet of working-class children, a sight to make divident-drawers gnash their false teeth. If that is theft, all I can say is, so much the better for theft.” — George Orwell, “As I Please,” 1943-1946^[23]

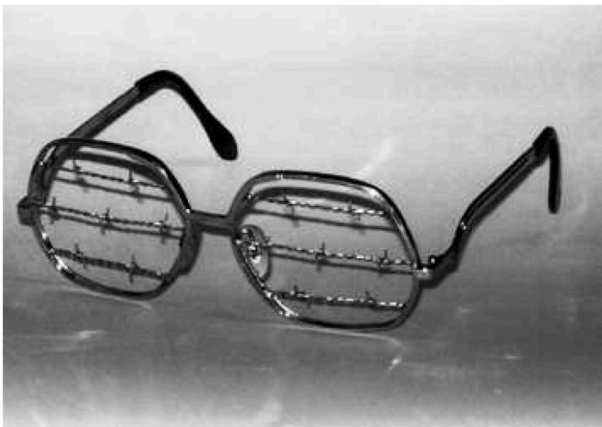
Today, a weary Londoner, faced with a locked iron fence enclosing an empty park, might run their hands along metal that had formerly been the muzzle of a booming weapon—material now quiet again as the protector of private property. During World War II, there was a great scrap metal drive — thousands of low-paid workers joined droves of patriotic volunteers^[24] in an unprecedented removal of fences, allegedly culminating in a collection of over one million tons by September 1944.^[25] The official national statements declared that the barriers were liquefied for the war effort: the fences were reconstituted as weapons and munitions. After the war, the excess weapons were melted back again, into fences.

The eye of the storm of private property, in the form of a nationalistic war-time commons, requires a common antagonist. One society’s ploughshare is another’s enclosure.

So the story goes. But many of the railings that were uprooted were never actually sent to war. Rumors and folk stories cite the possibility that

once the scrap drive gained popularity, it in itself was too good to scrap. What could be better for morale than removing the very physical divisions between people, especially if simultaneously performing a Keynesian make-work project? Some folk historians believe much of the metals ended up at the bottom of the Thames estuary, while others cite the excess wrought iron's role in the post-war economy. Another tale has the fences loaded up into bombers over France, as-is — replacements during munitions shortages near the end of the war.^[26]

Fences — Networks — Fences



(Itamar Harari, "Sharp Sight", 2002.)

The initial colonization process of North America was one of controlling space, but often without firm boundaries. The introduction of the barbed wire fence — an object of "territorial expansion and settlement, regional and international conflicts, incarceration and extermination" — played a crucial role in the architecture for the violent demarcation of the continent.^[27] By 1880, popularized through its unprecedented ability to contain cattle, yearly sales of barbed wire in North America reached 80.5 million pounds.^[28] It cut through migratory patterns of all pre-existing animals, securing a divide between nature and civilization that would endure the coming settlement. And, most significantly, the barbed wire fence was one of many violent apparatuses of destruction against the movements and ways of life of those who had populated the land for millennia.

As it cut across the territories of indigenous peoples, in addition to settlers who idealized the notion of the 'open range,' it was a controversial technology, to say the least. Bands of fence-cutting cowboys, for instance, gathered late at night, sabotaging the lines that infringed on their perceived rights to the land. But for our purposes, in this discussion of objects playing roles of other objects, there is another story at play. The fence has played a significant, or at least ironic, part in the creation of contemporary networks.

Not long after the invention of the telephone, it was to become an indispensable tool for rural colonial cooperatives. At the time, however, there was an absence of insulated copper wiring, and the capability to install such an infrastructure. But there was already a network of wires strating the continent and open ranges: with the use of make-shift portable batteries, the first widely used telephones in North America were the very barbed wire fences that defined the boundaries between the old and the new ways of life. Radio owners would play news updates on these networks, and those with phonographs would even use the fences to broadcast music. These "talking wires" connected thousands of farmers between until the 1920s.^[29]

Modulation and Tuning



(William Hogarth, "The Enraged Musician", 1741.)

"Enclosures are molds, distinct castings, but

controls are a modulation, like a self-deforming cast that will continuously change from one moment to the other, or like a sieve whose mesh will transmute from point to point." — Gilles Deleuze, *Postscript on the Societies of Control*, 1990^[30]

"Mr. Crotchet's article reveals a humanist with a keen interest in public education. He wants to tune the soundscape, not pulverize it into submission. We might say that he wants to compose the sounds of the street, not by aristocratic decree, but by giving the sound makers something like music lessons so that their sound making will suffer less from cross-talk, cancellation, and redundancy — in short it might become more harmonic." — R. Murray Schafer, *Voices of Tyranny, Temples of Silence*, 1993^[31]

Much like the proto-internet, the Whole Earth Catalogue,^[32] and early virtual communities in the 1960s and 70s, the beginnings of telecommunication technology have roots within rural life. In this context, some will consider transforming the fence wire into a communication device to be a resourceful and positive opposite to its function as a barrier. To quote historian David B. Sicilia, "what kept crops and animals apart helped bring people together."^[33] But considering the violent, divisive history of barbed wire, who are these people left over? They are evidently inside the colonial compounds built on the destruction of previous ways of life, where the new technologies of participation and togetherness thrive.

From a different vantage point, Schafer speaks of a "tuning" of "noise" that is in apparent opposition to the enforcement model of controlling urban and industrial sounds. Rather than the truncheon, the law (or the fence), the metaphor of "music lessons" becomes a moniker for an ideal future sociality. In fact, Schafer aptly points out that the physical wall often betrays its very purpose: "The glazed windows of the eighteenth century may have actually increased urban noise by attempting to shut it out."^[34] Boundaries and physical markers of private property create divisions and unrest, unless they are to masquerade as licensing or ethereal objects of convenience. When playing the role of networking technology, the fence may have a greater resilience: the enclosures of primitive accumulation become the ongoing encapsulation of subjectivity.^[35] The transformation from barrier

to network is exemplary of the transition between disciplinary societies and what Deleuze famously termed "societies of control," the biopolitical spaces of networked co-production towards self-motivated servitude.^[36]

Even the sonic architecture of Muzak has moved through a similar transformation. As Steve Goodman describes, Muzak Co. transitioned from "the surveillance of stimulus progression that constituted an early form of sonic discipline ... to the horizontality of background, atmospheric control in quantum modulation that no longer needs to correct individual action directly."^[37]

Today, in the relative absence of Muzak in virtual spaces, atmospheric control is a Silicon Valley inverse rendition of Silent Prayer: the silence and noise patterns of data, not as an intervention into the soundscape, but rather as something vacuumed up in the form of information commodities. Rather than being sold by the individual for the experience of the crowd, it is extracted from the crowd and sold by the individual.

This is not to say there is some sort of pure 'post-fence, pure-data' immateriality at play — but rather to speak to the contingency of the bell, the fence, and the network. The fence, when absent from one society while literally falling from the sky upon another, is irreconcilably caught in its role of enclosure, war, and incarceration. The optimized electrical fences of the cloud require the physical confines of the sites of data centers, resource extraction, and cheap labour. The freedom from that which resides on the other side of the barrier facilitates the reproduction of the status quo within the barrier — negative liberty meets positive liberty in the compound.

[1] From William Gilmore Simms, *War Poetry of the South*. (Applewood Books: Bedford, MA, 1867), 234.

[2] For example, see Justin McGuirk, "Honeywell, I'm Home! The Internet of Things and the New Domestic Landscape," *e-flux journal*, no. 64 (April 2015).

[3] Léon Theremin's departure from the invention of electronic instruments and work on spy technology has been cited as one origin of the internet of things. The first RFID tag ever developed was a surveillance device known as "the thing," designed by Theremin in 1945. It was an eavesdropping device that served as spying microphone. See Smail Tedjini, Etienne Perret, Arnaud Vena, Darine Kaddour, "Mastering the Electromagnetic Signature of Chipless RFID Tags," *Chipless and Conventional Radio Frequency Identification: Systems for Ubiquitous Tagging*, ed. Nemaï Chandra Karmakar (IGI Global, Hershey, PA, 2012), 146-147.

[4] Marshall McLuhan, Letter, December 16, 1974, in Gary Genosko, *Marshall McLuhan: Theoretical Elaborations*, Volume 2 (Routledge: New York, 2005).

[5] It could, for example, form what Keller Easterling has deemed "an internet of things without the internet." See Keller Easterling, "An Internet of Things," *e-flux journal*, no. 31 (January 2012).

[6] R. Murray Schafer, *Voices of Tyranny, Temples of Silence*. (Arcana Editions: Indian River, Ontario, 1993), 35.

[7] More generally, the properties of centralized, sanctioned public sounds can resemble the imperialist dreams built into Silicon Valley platforms: both dominant sounds and the tools of the so-called 'sharing economy' tend to pre-script space without fixed boundaries, all under the rubric of inclusive culture.

[8] Schafer, 33.

[9] For Delphy, recent anti-Muslim sentiment in France is often expressed in the declaration that "religious freedom is a matter of 'conscience'; and since your conscience is shut away within your brain, whatever's within it must never come out." See "'Religion: a private affair?' A rebuttal of a commonplace idea by Christine Delphy." <http://www.versobooks.com/blogs/1858-religion-a-private-affair-a-rebuttal-of-a-commonplace-idea-by-christine-delphy>

[10] Jaques Attali, *Noise: The Political Economy of Music* (University of Minnesota Press: Minneapolis, 2014), 8.

[11] *Ibid*, 112.

[12] See John Cage, "A Composer's Confessions," lecture delivered at Vassar College (February 1948).

[13] One might compare this proposal to *Air de Paris*, Marcel Duchamp's bottled air. See Douglas Kahn, "John Cage: Silence and Silencing," *The Musical Quarterly*, Vol. 81, No. 4 (Winter, 1997), pp. 556-598.

[14] A more recent example of a non-cannon cannon: there is a radio station in the Philippines which, twenty four hours a day, seven days a week, broadcasts a light, white noise. It's called Pampers ZZZ 99.1 FM, a brain-baby of the #1 Diaper company worldwide. It's a commercial without content, a sleep-aid service for restless babies and their mothers, a 25 million strong network of biopolitical sonic diapers. The radio becomes a white-noise machine, and becomes reprise from the industrial sonic landscape.

[15] For example, see "[Kenny G angers China with Hong Kong protest visit](#)" in The Telegraph, 23 October 2014.

[16] For example, see "[Hong Kong protests: Anger after Kenny G tweets then deletes](#)" in BBC News, 23 October 2014.

[17] Simms, 234.

[18] For example, see Jolyon Mitchell, "[Swords into Ploughshares, Arms into Art](#)", TEDx, University of Edinburgh, 2015.

[19] Specifically, Iraqi-Kurdish artist Hiwa K's project The Bell at Okwui Enwezor's exhibition All the World's Futures at the 2015 Venice Biennale. The project came out of Hiwa's encounter with a man named only as Nazhad, whose Iraq foundry melts down the waste of war. See: <http://theartnewspaper.com/features/hiwa-k-for-whom-the-bell-tolls>.

[20] For example, see <http://ploughshares.ca/tag/drones/>

[21] For example, see <https://transformnowplowshares.wordpress.com/>.

[22] For example, see "[Review of Ron Paul's New Book Swords into Ploughshares](#)", The New American, 27 July 2015.

[23] George Orwell, Sonia Orwell, and Ian Angus, George Orwell: As I please, 1943-1946 (David R. Godine: 2000), 208.

[24] Even [BBC's Children's Hour](#) ran a scrap-collecting competition. The winners collected nine tons of scrap.

[25] For example, see <http://www.londongardenstrust.org/features/railings3.htm>.

[26] Ibid.

[27] Quote from Alan Krell, The Devil's Rope: A Cultural History (Reaktion: London, 2002), 9.

[28] David B. Sicilia, "[How the west was wired.](#)" Inc.com, 3 June 2016.

[29] Ibid.

[30] Gilles Deleuze, "Postscript on the Societies of Control," October, Vol. 59 (Winter, 1992), 4.

[31] Schafer, 103.

[32] See Fred Turner, "Where the Counterculture Met the New Economy: WELL and the origins of Virtual Community," Technology and Culture, Volume 46 (July 2005), 485-512.

[33] Sicilia.

[34] Schafer, 71.

[35] Data societies have long struggled with the right mix of physical barriers and surveillance. As Elliot Vredenburg has stated, both the ideologies of Silicon Valley and Stalinism share the insatiable appetite to collect data, while simultaneously suffering from the paralyzing effects of having collected too much.

[36] Deleuze, 3-7.

[37] Steve Goodman, *Sonic Warfare: Sound, Affect, and the Ecology of Fear* (MIT Press: MA, 2010), 144.