The coordinates of the monument intersected several time-space trajectories including the physical locations where pivotal moments of the various battles took place and the abstract ambience of their respective natural environments. Already when approaching the looming stone structure, the sound of ocean waves could be heard crashing against the rocks, eager to silence the vehicles that relentlessly encircled the monument so rudely without reverence. The uncanny dislocation of myself and these unreachable spaces was both thrilling and unsettling; it was a struggle to keep sense of where I was and what it meant. The observation deck provided long-range sensory devices allowing visitors to access life at the far reaches of the city as it continued along with its various tasks unaware of our remote invasion. I descended into the underground passage intersected with the depths of a mumbling waterway so present I found myself holding my breath. The composition of these experiences left me in such awe and contemplation that I lingered, ignoring the advice that if walked too slowly, I might actually drown…

The three distinct sound treatments in *Sound Island* (1994), a multi-tiered sound sculpture that occupied the L’Arc de Triomphe in Paris, situate it as a work that encapsulates the breadth of Bill Fontana’s *resoundings* – the relocation of sound from one site to embody another. The underground passages were concerned primarily with the aesthetics of unheard ambient music as experienced through its real-time sonic occupation by the English Channel. On the ground level, the face of the monument resounded to reflect the historical past and the cultural present through the forceful sound of ocean waves splashing against the Normandy Coast, transported in recollection of events past and in critique of environmental acoustic ecology. The observation deck attempted to satisfy Fontana’s long felt desire to ‘hear as far as the eye can see’ by transmitting real-time sonic information from sixteen different locations in Paris from cathedrals to cafes to their respective view points along the deck. All together, *Sound Island* networked a body of environmental ambient music whose musical power and sociological meaning was rendered by its juxtaposition with a new location.

Bill Fontana is a lover of sound. Sometimes he falls in love with a sound and then simply tries to find a new home for it. While his soundscapes readily lend themselves to formalist readings concerning the nature of sound, site, musicality and the act of listening, the uncanny phenomenology of the work can be further filtered to reveal several related experiential trajectories depictive of the contemporary socio-cultural landscape. I am particularly taken by those that actively move beyond the formal considerations and aesthetic appreciations of hidden sounds towards creating environments that serve as nodal points to alternate realities which, in turn, reveal hidden, forgotten, or ignored aspects of our social, cultural, and historical experience. By bringing ‘far away’ sounds ‘so close’, Fontana makes use of a speculative strategy in which by using the uncanny to distance perceivers from an expected experience, they are brought closer to their own reality.
A Web of Influences

With the advent and force of digitized culture, many of the worlds of the recent imaginary, particularly the technological speculations of science fiction have all but collapsed into reality. There is not much that we cannot imagine as being possible if describable by technology. It is not surprising that much of the contemporary vision has a parallel within the genre of speculative fiction.

The disjuncture and re-assignment of an expected sign/signifier relationship has long been one of a complex web of strategies utilized in science fiction to bring a reader closer to the workings of his or her own environment. Distancing produces attentiveness, and this attentiveness reveals meanings that relate to the reader’s own socio-cultural realities that may have otherwise been ignored or unknown. Author/critic Samuel Delany proposes science-fiction as a way of reading a text in light of the infinitely intersecting “web of influences” science fiction situates itself in, and consequently as a way of reflecting upon the actual world we live in. Delany deems that the focus of science fiction should be “the juncture between the object and the behavior it causes”.

Similarly, Bill Fontana’s resoundings propose ‘re-listening’ as a way of reading ambient sound – enacting concentrated and reflective listening in order to derive meaning from our socio-cultural environment, and he sets forth to produce sonic information networks to facilitate this process.

The creation and manipulation of floating signifiers within science fiction paralleled the emergence of the loosening of signs from signifiers and the general subjectivity of perception that began to occur during industrial modernization. While the disjuncture of the historically assumed perception/experience synthesis was facilitated by modernism and certainly by capitalism, it has come to depict the status quo for contemporary sensory ‘consumption’. Increasingly, perception is dislocated, mediated, and nothing is what it seems. In Suspensions of Perception, Jonathan Crary traces the evolution of rifts in the perceptual field:

For the last 100 years perceptual modalities have been and continue to be in a state of perpetual transformation...If vision can be said to have any enduring characteristic within the twentieth century, it is that it has no enduring features. Rather it is embedded in a pattern of adaptability to new technological relations, social configurations, and economic imperatives.

Clearly, it is not only vision that has fallen into non-fixity, but so also has sound, as long experienced through the disembodiment of the voice and its ghost-like mediation into numerous simultaneous sites via broadcast mediums such as radio. While the inherent properties of sound cause it to wander away from the site of its origin, this quality was radically extended by the disjunctive functions inherent to analog broadcast mediums and the mobilization of recorded material. In the digitized environment, sites and sounds have been reduced to autonomous information units ready to be re-contextualized into an infinite number of forms and meanings, and distributed throughout a network of endless possibilities.

The purist’s creed of what constitutes science fiction mandates that a technology serve as the point of departure for speculation and social reflection. In today’s
environment, it is vital to consider the dislocation of information entities and their movement along networks as central to understanding today’s hyper-mediated socio-cultural environment.

Accessing and distributing information and the tenuous relation between the material and the immaterial is a prevalent theme throughout cyberpunk fiction that foreshadowed today’s information culture during the 1980s and began to manifest itself as reality in the 1990s when the World Wide Web hit popular culture. The notion of ‘the ghost in the machine’ took on a new, concrete identity as an ethereal lifeform who negotiates the labyrinths of digital networks, appearing at various nodes of perceptibility, often with a covert agenda. Whether node hopping through the digital landscape, or body hopping as consciousness, the disembodied presence appears as an anomaly that disrupts the functionality, or identity of the original site, and consequently, alters its essential meaning. We see this motif repeated throughout science fictions that take the information network and information/site hybridization as the point of departure for representing the cultures, social interactions, and perceptions of the contemporary post-modern society.

Fontana hacks into the secrets of hidden and inaccessible site/sound junctions in the real world, extracts sonic information, and distributes it through temporary networks to create new sound/site entities with, new identities and new meanings. Like a ghost in the machine, Fontana’s disembodied sounds take possession of the sites to which they are channeled, and in the most compelling of his projects, the sonic ghosts have something to say.

Sound has long been equated with the ‘ghostly’ given its inherent ethereal form and pervasive qualities. Though invisible and bodiless in origin, Fontana’s sounds are transformed once they exit his networks and enter the public sphere. They come to embody the physical sites to which they are directed, taking root into their new homes. The immense force with which the sounds occupy the space causes them to take on a visceral, physical quality; the bodiless becomes body. Fontana’s resoundings are consuming bodies that engulf the body of the listener and take possession of the site of its new coordinates, altering the perception-reality of both.

Within the structures of the contemporary cultural landscape, the disjunction of sound/site information and their re-associations are no longer anomalies but rather common practice. Fontana’s resoundings, however, manage to return the uncanny to an already deconstructed sensory environment. Perceiving a Fontana resounding, is an inquisitory experience. The perceptual uncanny nature of the nodes created by his sound/site juxtapositions lead to subtle crises of perceptual information. What is that sound?: the listener is placed in a state of pensive awe while engaging an active listening status. In the more poignant of Fontana’s soundscapes, the perceiver drifts from inquiring What is that sound? To What does that sound mean?

At the onset, the Fontana project does not take socio-cultural commentary as its primary objective. In fact, much of the work seems on the outset to have very little to relation to such a task at all. In the indirectness and subtlety of its criticality, the viewer is first given the pleasure of an intriguing and uncanny experience, placed at ease to contemplate its derivatives and consequences.
Junction: Marcel Duchamp and John Cage

When asked about the influence of digital technology and networks on his work, Fontana remarks that when he began formulating his ideas in the mid-1970s, digital technology did not exist. As a composer at the time, he was driven by the aesthetic notion of the inherent musicality of sound in the environment, and by the desire to make this music manifest. Of particular interest was the desire to create systems that would reveal the compositions that existed naturally in the environment as a composite of juxtaposed ambient components that could otherwise not be heard from a single vantage point. Early examples of this included Kirribilli Wharf (1976) in which, simultaneously at 8 different locations, he recorded the percussive composed of rhythms created by water closing and opening the holes in pipes that descended into the water from a floating pier in the Sydney Harbor. By the late 1970s this exploration had evolved into the creation of musical information networks in order to explore the conceptual possibilities that could be yielded from explicitly manipulating sound/site relationships. While it is true that the digital information network did not exist as we know it today, by then, the analog cultural environment of media exchange and transportation had already drastically re-shaped perception (and production) into apt receptors for what was to come. The speculative strategies of science fiction were certainly not precedent, but rather one example amongst many art forms that had been simultaneously responding to the postmodern de-constructed perspective. Fontana readily found the subjectivity of perception an apt strategy for creation, and sought to explore the malleability of mind in relation to musicality. In lieu of writing musical compositions, he wanted to capture the magical moment of inspiration that occurred when he recognized music in ambient sounds. “When I became musical, all the sounds around me also became musical”. 

Simultaneously encountering the work of both Marcel Duchamp and John Cage, (and having been a student of the later), confirmed the young Fontana’s interest in environmental sounds as music and also that this pursuit had a definable place as art. Cage’s practice largely looked to formal and certainly practical expansions of sound and/as music. A change of mind-state or perceptual context was to occur within the mind of the listener that would allow any sound found in our surroundings to be perceived as music. The notion of ‘silence’ became recognized as non-existent; ambience (and the body itself) was full of sounds and they could be activated as music when ‘performed’ by an attentive ear. Duchamp lent Fontana his preoccupation with found objects and the assertion that the identity of an object is not fixed, but rather dependent upon the physical context in which it is placed and experienced. The meaning of any object changes when that object is placed in a new context, especially if that new context operates within a different set of power relations. Recognizing the contextual mutation of meaning reveals that meaning itself is subjective and dependent upon a complex working of personal and cultural perception mechanisms that collide as reading in the mind of the perceiver. In literary terms, a passage that reads, “the planet made an astonishing music that I’d never heard before” would conventionally be treated as a metaphor given the assumption that planets cannot actually make music. In the perceptual context of a science fiction reading, where ‘all things are possible’, one can imagine that the particular planet described was somehow able to make music. Intersecting this reading strategy with the views of
Cage, Duchamp, and Fontana, we understand that this planet does make music if we only listen and choose to perceive it as such.

Focusing on one aspect of a perceptual experience, causes it to be isolated and available to be intersected with an infinite number of other signs. Fontana understood that by extracting an ambient sound from one context, and placing it within a new context would have a fundamental impact on the meaning of the sound. Though the emphasis in his resounding strategy was placed upon aurality, his sounds are not to be read alone, but rather as a coupling between them and their new environment; a deconstruction of perception and creation of a transformed sound/site entity.

**Ethereal Objects, Space-Time Bodies**

Sounds leaving from  
Different places and forming  
Sounding  
A sculpture that lasts

Inherent to sound is the world of unseen and intangible ‘things’ moving invisibly over time. Fontana refers to his version of the ‘Duchampian object’ as ‘sound sculpture’, a seemingly contradiction in terms. The conventional art object conceptually fixes time onto a physical form in space, leaving the perceiver at liberty to extract subjective temporal references from it at will. Sound forces us to experience time on its own terms. While sound does occupy space, it is dynamic, seeking to move through and beyond it. ‘Sculpture’ as a term, gives us a solid reference for considering the dimensionality of something intangible; it provides a usable metaphor for contemplating immaterial form in space. It implies clear, definitive boundaries to a form whose boundaries are dependent upon the space that contains it, and the ear that hears it. Time is perhaps the strongest inherent boundary to sound.

In spite of decades of the deconstruction of conventional art forms, the art world still relishes the art object over all other forms. It affirms presence and feigns a time-defying stability. Sound, in its temporality, is an ever-fleeting presence, an experience suspended in a continual disappearance into memory. It is a visceral parallel to the fleeting nature of life itself. Historically, the popular imagination has long equated stasis with the eternal.

Perhaps one of the most iconoclastic symbols of time in Western society is Big Ben in London. It stands like an architectural relic, seeming to belong more to history than to today’s urban landscape, but remains steadfast in reminding us that time is present, it is continuous, and that we are small within its plane. As a single bell chimes, the sound it emits rides time like a poetic refrain. Time, like sound, stops for no one. Each strike lingers and echoes throughout the city to its farthest reaches and readily fades away into the embracing ambience. Each strike is a moment of birth, life, and death. In both versions of *The Speeds of Time* (2004, 2008), Fontana miked this acoustic icon and extended its spatial capacity by transmitting the sound elsewhere in the city, but still within earshot of the original sound source, strengthening its force. In the 2008 version, sounds from the struck bell were sourced from Big Ben and as far away as the rooftop areas beyond Parliament square, producing an acoustic sound
map of that area of the city that include not only the strike, echo, and decay of the bells, but the other sonic life as well. By marking the spatial movement of a series of seemingly ‘singular’ sounds, he in fact reveals sound as a dynamic and flowing force whose waveforms create continuity as they resonate into the environment. As there is no ‘silence’, there is no singularity to sound, but rather a permeating body in acoustic collaboration with its environment.

Fontana’s soundscapes create nodal junctions that complicate the consideration of time on multiple levels. As much as sound is unfixed by nature, ambient sound seems to linger and hover in space; the persistence of its presence acts in defiance of time. Fontana’s ambience creates a sustained atmosphere, collapsing temporal boundaries into an eternal acoustic entity. There is no beginning, there is no end – just a living space of sound. The process of his real-time networking furthermore manipulates the time dimension. It simultaneously makes vivid the process of decay in the natural lifespan of a sound object and extends its life by furthering its reach. Fontana offers us sound that lasts.

Many of Fontana’s sound sources are ‘ghostly’ in their inability to be heard without mediation. In tapping into these sounds, and relocating them to the public sphere, he gives the sounds a body, a container in which to live and be heard. In the “Harmonic Bridge” (2006) project, Fontana attached a network of accelerometers to various points along the structure of the Millenium Bridge in London to capture the hidden sounds created by the structure when activated by the movement of bodies over its surface, and other ambient forces such as wind. The sound map was transmitted to the Turbine Hall in Tate Modern, a location the bridge naturally feeds into, yielding an acoustically compelling and conceptually haunting musical evidence of the movement of thousands of unseen bodies as well as the bridge’s resonance with the wind. The bridge itself is recognized as a body alive in interaction with its environment. Its acoustic life-force was accessed and made to embody the space of the Turbine hall so its secret existence could be known.

The notion of embodiment in Fontana’s extends itself beyond the mediation of a sound source to a new site to operate on many conceptual levels of simultaneous embodiment. In “Harmonic Bridge”, the acoustic micro-world of the bridge came to embody a singular new site. Simultaneously in other works, such as the early Kirribilli Wharf, and later in the Venice and San Francisco/Cologne works. Fontana actively seeks to mediate a listening experience that would allow the perceiving body to be in many locations at once. While science fiction still forecasts the bending of space and time to afford being in two places at once, as of yet, broadcast technology is the closet we get to being simultaneously present in multiple locations. For Fontana, there is an infinite amount of music that remains unheard because of the physical limitations of our bodies as well as the inherent time-space lifespan of a sound body. His works seek to make our bodies ethereal as to permit pervasive sensuality, and to make ethereal sounds embodied as to give them life; all becoming ghosts in the machines, haunting spaces to give new experience and to make hidden experience known.
The Secrets of Phantom Voices

*Invisible things are not necessarily not-there.*

Toni Morrison `Unspeakable Things Unspoken”

Sound bodies can be seen as ‘living entities’ whose life systems, realities, and logics are intrinsically intertwined with those of our own in a symbiotic relationship involving presence, time, experience and memory. The metaphor of the ‘ghost’ is not unknown to the world of sound. There is, of course the obvious relationship to invisible and pervasive presence inherent to sound, but many sound artists such as Carsten Nicolai have taken the notion so literally as to utilize methods of capturing paranormal activity in the production of sound works. Though Fontana is not actively ‘looking for ghosts’, by revealing sounds unknown, or reactivating those forgotten, ignored, or simple inaccessible, he mediates a social acoustic haunting that spans from formal aesthetics to socio-cultural and historical experience. In Avery Gordon’s examination of the ‘ghostly’ as a metaphor for examining sociological phenomena she writes, “Haunting is one of the most important places where meaning – comprehension – and force intersect.”¹¹ Fontana’s interest in the new meanings that can be created in ‘resounding’ environments, manifests itself in hauntings that employ the force of the uncanny to reveal hidden truths and forge new understandings.

While in most of Fontana’s resoundings, the ‘ghostly’ is enacted as an aesthetic experience of re-embodied sound, “Distant Trains” (1984) is a work that poignantly brings forth acoustic haunting as a sociological phenomena that activates collective memory.

When visiting the ruins of the former Anhalter Bahnhof train station in Berlin, Fontana recalls the unsettled feeling of historical presence he experienced:

> The first time I visited the Anhalter Bahnhof, the empty field behind the shattered facade seemed strangely quiet, as if haunted by the sounds of trains and people. This ‘acoustic haunting’ was so vivid that I decided to design a sound sculpture that would suggest the same experience to anyone passing through the site.¹²

The ‘silence’ Fontana recalls was filled with ambient noise of present activity in the surroundings, but also full of the hidden or forgotten noise of the former train station. As a concentrated listener, Fontana was able to hear the music of the present and past collide within him. His desire became to give the existing acoustic phantoms a stronger life force so as to be experienced by anyone who passed through the site. The result was a sound sculpture in which the sound from Germany’s most active train station, Köln Hauptbahnhof – then the most active in Europe, was played from a series of speakers buried within the ground of the ruins.

When the work was realized, the Berlin wall was still standing as a marker of the historical and political thread that united Berlin’s past with its present and split the city in half. Conflict was ever so present in the city, yet had become well blended into background of most of the inhabitants’ daily lives. Train stations enabled the physical movement of people from one place to another, but in Berlin, it also represented the political restriction of people’s movement. The term
"Geisterbahnhöfe", or “ghost stations” came to describe the infamous stations in the east where trains went straight through without stopping in order to prevent East Berliners from escaping to the West. The conceptual image of the train had also become historically tainted by the transportation of millions of men, women, and children to their deaths in the years preceding and during World War II, until 1945 when the Anhalter Bahnhof terminus was destroyed beyond use.

“Distant Trains” created a time portal that connected the past with a repressed collective memory that lingered as only a whisper in the present. The displacement of the acoustic body in physical space opened a channel through time-space along which both the sound and that of the listener would travel. The work had a strong emotional impact on those who experienced it, especially those who were old enough to have lived through the war. It was a catalyst for remembering, and consequently for a visceral re-experiencing the past and a closer examination of the present. The sound body that came to occupy the Anhalter Bahnhof was a ghost asking to be heard; one had only to listen and reflect.

If haunting describes how that which appears to be not there is often a seething presence, acting on and often meddling with taken-for-granted realities, the ghost is just the sign, or the empirical evidence if you like, that tells you a haunting is taking place. The ghost is not simply a dead or missing person, but a social figure, and investigating it can lead to that dense site where history and subjectivity make social life. …Being haunted draws us affectively, sometimes against our will and always a bit magically, into the structure of feeling of a reality we come to experience, not as cold knowledge, but as transformative recognition.13

“Distant Trains” ultimately speaks of the ‘the disappeared’, those rendered silent; the attempt to erase a people forever from existence. So uncanny a rendering of the story, yet so beautiful it is in its subtle, indirect tongue, as seeming to express its own humility at the truths it unveils. The relationship between what we hear and what we know is often unsettling.

Sound is intricately woven with memory and Fontana’s acoustic haunting makes this even more manifest. Even in “Sound Island”, whose resoundings may appear as simple iron at the onset, does the sonic apparition seem coupled with a message. Reinforcing the almost forgotten identity of a monument erected to honor lives lost in battle, speak the shore sounds of the Normandy Coast, the location of WWII D-Day invasion. New meanings often start with the remembering of things past.

Acoustic Ecology

Fontana’s resoundings certainly satisfy and intersect the Duchampian and Cagian postmodern trajectories, but in today’s hyper-audio/visual environment also strike resonance with the Futurist re-positioning of ‘noise’ as music in reflection of the modern industrial society. Futurism was fascinated with the rapid and manifest changes in society brought forth by industrialism. The world was full of new sounds – the noise of the machine, and these sounds were seen as a direct reflection upon the society that created them. In Fontana’s treatment of sound objects as autonomous and
transportable ‘free association’ entities, he similarly began to forge connections between postmodern subjectivity and the radical expansion and industrialization of visual and auditory culture. *Resounding* seems to affirm that people are still not listening or are perhaps unable to given the contemporary paradigm of sensory overload and subsequent desensitization.

The experiential anomaly of “Sound Island”, while voicing historical, is also firmly rooted in the phenomenology of hyper-mediated culture. The sounds of waves against the shore were so powerful in force, and so matched in acoustic harmony with the ‘white noise’ of the traffic circling the monument, that one was immersed in the illusion that the cars were silent. Fontana’s ability to use sound to transform perception utilized the daily unconscious efforts required to mask out undesirable sounds from the urban environment - self-imposed deafness. The *resounding* of the monument site emphasized the usual ‘noise’ emitted from the city’s busiest traffic circle and transformed passive hearing into active listening; the ‘noise’ that would be suppressed, seemed to have disappeared. When the anomaly disappeared, for those who had experienced it, so did the ease of ignoring the acoustic pollution that had returned.

Listening has fallen into the cultural logic of late capitalism as today’s social landscape demands that we switch attention rapidly from one thing to another.\(^4\) Attention is to be spread across a vast plane, distraction is to be expected, and there is much we simply need to ignore. In animating the environment as an altered life form, Fontana furthermore expresses a desire to confront the acoustic implications of contemporary industrial and media culture and consider what active roles sound design can play in addressing the issues of hyperaudibility. How can we be expected to listen when there is so much we need to tune out, and even less we would remember?

Fontana’s acoustic ecology puts the mediated bodies of micro and distant worlds in conversation with the sociological and reveals that the ghost in the machine is in fact a social figure we should listen to.

\[I \text{ tried to find the rhythm of the world where I used to live... But I was haunted by the idea that I remembered her wrong.}\]

\*Solaris*  

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\(^1\) Description of “Sound Island” rendered as a science fiction text by the author.  
\(^2\) Conversation with Bill Fontana at NOTAM “Soundscape in Art” symposium, Oslo, 8 April 2010.  
\(^3\) The strategy applies the broader literary category of ‘speculative fiction’ as well. ‘Science fiction’ will be referenced in this text because of its relationship to technology and Fontana’s emphasis on the mediation of sounds using ‘acoustic information networks’.  
\(^5\) Ibid.  
\(^7\) Bill Fontana, “Music Information Networks”, Available at: [http://www.resoundings.org/Pages/musical%20networks.html](http://www.resoundings.org/Pages/musical%20networks.html) [Accessed 2 April 2010].  
\(^8\) Bill Fontana, “Reoundings”, Available at: [http://www.resoundings.org/Pages/Resoundings.html](http://www.resoundings.org/Pages/Resoundings.html) [Accessed 2 April 2010].
As a colorful literary example, Dante described both heaven and hell as states of suspension. The later presents a frozen realm in which the beating of the wings of the ice-encased beast produced a rhythm so fast that it was barely discernable as movement at all. In the former, paradise offers eternity locked in the bliss of a singular vision. Both realms are awesome negations of time itself. In sound, we are immersed in time and confronted with the fleeting dynamism of life itself.


