



# Objective Sound

## Bill Fontana

### Musical Sculpture

### sounds lasting and leaving

### forming and sounding

### a sculpture that lasts

— Marcel Duchamp, from notes on the Large Glass

This new sound sculpture commissioned by Western Bridge in Seattle represents a return and reinvestigation of ideas that were the starting point of my artistic path.

My first sound sculptures, created in the early 1970s, involved taking found objects with interesting resonant qualities—large bottles, cylinders, tubing—and using them as listening devices. The objects were set outdoors in a noisy environment, often on the roof of a building, and small microphones were placed inside of each object, transmitting its sound to an indoor gallery space. Excited by the acoustic energy of the surrounding noise field, these objects filtered this dynamic noise with harmonics and resonances, creating a musical shadow of the environment. I was fascinated by the possibilities of using live ambient sound to achieve a musical and sculptural result through to the late 1970s. This work culminated in an exhibition in 1978 at the National Gallery of Victoria in Melbourne, Australia. The projects from this period were collectively called Sound Sculpture with Resonators.

This was an important starting point for expansive acoustic investigations of the urban and natural environment. For my eight channel sound sculpture Kirribilli Wharf I placed microphones inside the openings of eight vertical cylindrical holes in a floating concrete ferry wharf in Sydney Harbor. Each microphone heard the movements of the sea at the bottom ends of the holes, which rhythmically closed when the wave action became intense, producing low-frequency compression waves. Because the waves were moving, these percussive tones cascaded between the eight channels of sound. When heard from eight loudspeakers, this created a sculptural sound map of the waves. For the National Gallery of Victoria in Melbourne in 1978, I installed small microphones inside hollow steel pillars in Flinders Train Station, across the Yarra River from the museum. The deep resonances of the columns reverberated with the acoustic energy of the trains, which was transmitted back to the museum. The piece was last installed as an 8-channel recorded sound sculpture at the Whitney Museum of American Art in 1985.

My interest in the urban and natural environment as a living source of musical information has only grown in the more than 30 years since these early projects. It has developed not as an evolution in which a new idea throws out a previous one, but is more like a tree with deep roots and many branches. Using sound sculptures to listen to places in the world that have musical qualities, I could turn the "music going on all the time around us" into art.

These early works, and the more than thirty years of sound sculptures that followed, all involved relocating live sounds to an environment or situation that was one step removed from the source, at some distance from and not directly visible from where the sounds were experienced.

For my 2006 Harmonic Bridge project at the Tate Modern, I attached accelerometers to the cables and structural steel of Norman Foster's nearby Millennium Bridge. These devices pick up internal vibrations, allowing them to be made audible. Not visible but audible in the resonant acoustics of this cathedral-like industrial space, the presence of the sound sculpture became the apparent sound of the building, as the Millennium Bridge responded to wind, weather, people and ambient sounds that were picked up and echoed within its structure. The presence of the live, relocated sound had a magical abstractness: pure sound becomes a sculptural medium, with a great power to transform our perceptions of space. Harmonic Bridge made extensive use of accelerometers to explore the great range of sounds that were produced by entering the inner world of a structure. This project, so fresh in my experience, greatly influenced my response to Western Bridge.

When I first came to Seattle in the summer of 2006 to develop my project for Western Bridge, I was given the opportunity to imagine activating the entire building with sound. I first thought of putting microphones in many interesting locations in the Seattle environment and transmitting the live sounds to fill the gallery spaces.

My accommodations during this period were in the upstairs bedroom of Western Bridge, so I had the opportunity to live in the building and get to know the surrounding environment. I explored this landscape on foot with sound recording equipment and became increasingly interested in the frequently occurring sounds of train whistles from the nearby railroad crossings, and the low flying aircraft going to Seatac and Boeing Field. I also became interested in a nearby industrial surplus yard called Pacific Industrial Supply.

Visiting this surplus yard, I began placing small microphones and accelerometers inside of and on to various objects. I became fascinated with how they filtered the ambient soundscape of the Duwamish Industrial Area of Seattle. I began to buy some of these objects and set them up in a black box video gallery at Western Bridge. I took recordings I made of the outside ambient sound and played them in this space. Inside of each object I placed either a small microphone or accelerometer and began to carefully study, measure and record the acoustic responses of these objects to the outside sounds. I became convinced that the most interesting way to realize this sound sculpture would be to set live microphones on the roof of the building and place this collection of industrial artifacts in a room together so they could simultaneously monitor (listen to) the ambient sound from outside. Loudspeakers placed in each of the rooms of Western Bridge allow each room to become the sound of one of these objects. Over the course of an hour, the objects will slowly shift acoustic positions in the building. At first a room is an I-Beam, then a buoy, then a bottle, then a pipe.

This collection of objects is isolated from visitors and the other gallery spaces in a sealed room, much like musicians in a recording studio. The objects are visible through a window and are framed by this view, forming a kind of strange still life. This orchestra of surplus industrial artifacts has given them a new life as listening devices, playing and transforming the live sounds from outside.

— Bill Fontana, May 2007



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