



## These Soundscapes Turn National Statistics Into a Maze of Noise

Written by **KATHERINE TEMPLAR LEWIS**

October 1, 2014

There are few art galleries where you could walk in with your eyes closed to best appreciate the art. Yet visit the [Carroll/Fletcher gallery](http://www.carrollfletcher.com/) (<http://www.carrollfletcher.com/>) in London at the moment, and I'd suggest doing precisely that.

In the current exhibition *Obra Sonora*, Mexican-Canadian artist Rafael Lozano-Hemmer (<http://www.lozano-hemmer.com/index.php>), hailed by some as the "worlds most famous electronic artist"

(<http://www.theguardian.com/artanddesign/2010/sep/17/rafael-lozano-hemmer-recorders-exhibition>), has turned from his renowned interactive light installations to

acoustic works that take Big Data and crowd-sourced vocals as their raw material.

Lozano-Hemmer explained to me that he uses "speakers as pixels" to create his pieces. Tactically-placed speakers create immersive sonic environments where the visitor can experience whole data sets and interact with them to become part of the performance. Lozano-Hemmer told me that each experience "makes tangible statistics that are otherwise abstract. It breaks down the information into something concrete."

The largest work in the exhibit, *Pan Anthem*, uses multi-channel audio to this effect. Across the wall before me are hundreds of speakers, fixed by magnets. Each one, labelled by country, plays a different national anthem.



Installation view of *Pan Anthem* (2014) by Rafael Lozano-Hemmer. Image: Carroll/Fletcher

By moving their position, the speakers can be arranged to sonically represent and compare sets of national statistics, from GDP to percentage of women in parliament. It takes the giant datasets and turns them into an interactive soundscape with spatial parameters.

Currently, the chosen data set is national military spending per capita. At the far left of the room play anthems of countries without an army, such as Costa Rica and Switzerland. Move right, and the anthems of those with increasingly expensive armed forces become audible: India at a distance 2.5 meters further along the wall, Russia at 7 meters, and then, at the far right, the Star-Spangled Banner plays out alongside the anthems of Israel and the United Arab Emirates.

In Lozano-Hemmer's words, the "positional playback of anthems associated to the specific metrics creates an environment where you can see or rather hear data at a glance."

IS ENTRANCING, LIKE BEING CAUGHT IN A  
SONIC MAZE.

He pointed out that on the far wall, silenced speakers represented "countries that have either ceased to exist or are not yet created." Yugoslavia sits eerily beside Scotland and Quebec, all silent. "The piece may, can and must incorporate change," Lozano-Hemmer said.

And the anthems that are audible today only play in the presence of the visitor. As you walk through the room, you become part of the performance.

Lozano-Hemmer is keen to use this kind of audience participation in all his work. On entering *Voice Array*, visitors speak into an intercom. Their recording is added to the voices of thousands of past gallery visitors in a cumulative and crowdsourced work.





*Sphere Packing* (2014) by Rafael Lozano-Hemmer. Image: Carroll/Fletcher

Again in *Sphere Packing*, ([http://www.lozano-hemmer.com/sphere\\_packing.php](http://www.lozano-hemmer.com/sphere_packing.php)) the experience of the work is a personal journey. A series of 3D-printed spheres hang in a darkened room. Each one plays the entire works of a chosen composer, and the size of the sphere is directly proportionate to that composer's overall output.

As you move through the space, the entire musical oeuvre of composers from Mozart to Mahler are played through tiny speakers to create a total immersive soundscape particular to whichever position the visitor adopts. As I move closer to a ceramic ball (Mahler), a wall of sound becomes a series of string melodies and then suddenly turns into electronic bleeps as I turn toward a smaller silver globe (Stockhausen). It is entrancing, like being caught in a sonic maze.

His newest piece, *Fiducial Voice Beacons*, has been commissioned by London's Science Museum for permanent display in the New Information Gallery and will be unveiled on October 24.

It will consist of 40 "spatialized voicemails." Voicemail messages curated and crowd

sourced from the visiting public will be contained in 40 hanging chandeliers, which visitors will be able to locate via a specially designed augmented reality app.

Lozano-Hemmer told me he hopes his works will serve as a tool to help “slow communication in this fast paced world,” where technology can be isolating. He's certainly an artist to watch—or rather, to listen to carefully.