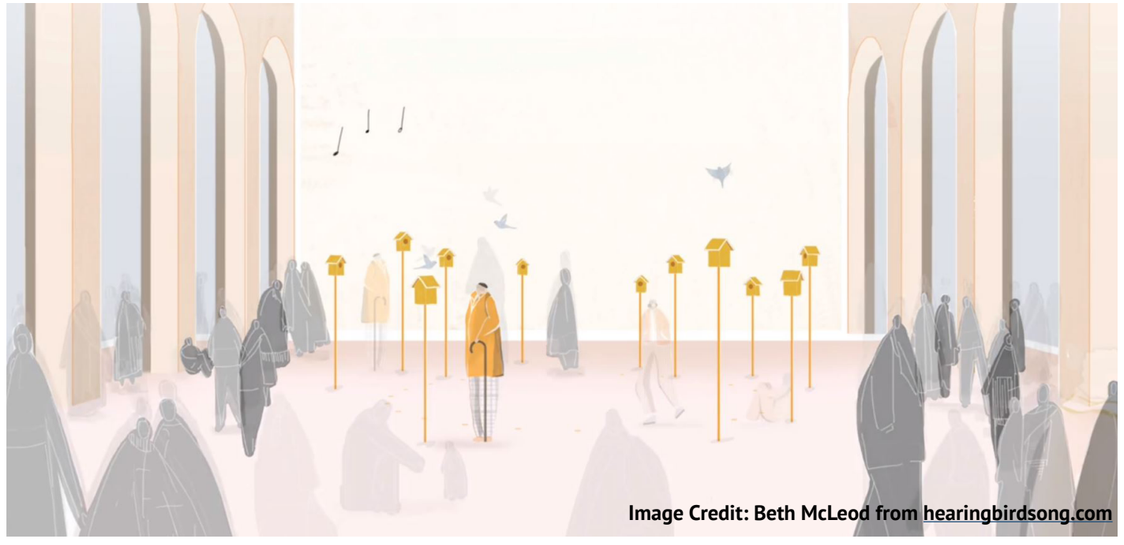


Image Credit: Beth McLeod from hearingbirdsong.com

Hearing Birdsong

By Tim Beatley

British architect Tom Woods, of the firm Woods Kennedy, found himself one of the few people in a co-designing workshop (referred to as the "sandpit") around hearing loss without a direct connection as a patient or audiology professional. He ended up successfully pitching an idea to the group that has now been funded and is beginning to take hold.

The essential idea was to utilize birdsong—something universally enjoyed—as a creative way to discern hearing loss. In the UK, as elsewhere, many who have experienced hearing loss have never been tested. And there is little wonder, given the typical process of going to an audiologist, putting on large headphones, fearful of what the results are likely to show. Woods thought about this in the case of his own Dad, and the "very negative message" such a process sends. What if, on the other hand, one's hearing loss might be more naturally discovered and diagnosed by the ability (or inability) to hear birdsong? Instead of an electronic tone, the use of birdsong, says Woods in an August 2019 interview, should help "to humanize this process." The emphasis can be more positive and optimistic—keeping or restoring one's hearing in order to enjoy the birdsong and other sounds we want to hear, what Woods calls an "aspirational message." That was the essential insight that lead to the Hearing Birdsong project.

And the need is considerable. Woods tells me that of the estimated 12 million people in the UK with hearing loss, the vast majority (9 million) are undiagnosed. Hearing loss is often slow to be recognized. "That point of self-diagnosis is coming much later," Woods says.

The songs of three British birds (Wren, Song Thrush, and Wood Pigeon) are used. They are projected from bird boxes, each "calibrated at a different frequency band" to help detect hearing loss. An installation consists of an array of six bird boxes of different colors, each with its own receiver and speaker, all coordinated through a laptop computer. The current version allows adjustments for background noise to create a sense of dynamic movement of birds in a room. Further work on the system (version 3.0) will allow the birdsong to be even more customizable and dynamic. More work will also be done to improve the diagnostic side: specifically, to create clear thresholds that, once crossed, allow for hearing loss detection.

While a softer approach to detecting hearing loss, the Hearing Birdsong installations are also themselves a form of art, and they have the potential to deliver beautiful and uplifting (and therapeutic) sounds to the interior spaces of buildings. The installation can be small and compact, something that could be taken to a school or set up in the lobby of an art gallery or a doctor's office.

So far, two installations have taken place with another three expected by the end of 2019. Woods and his team are working on further developing the system, and refining the software, and he can imagine even larger installations (perhaps even a room of 100 boxes or more).

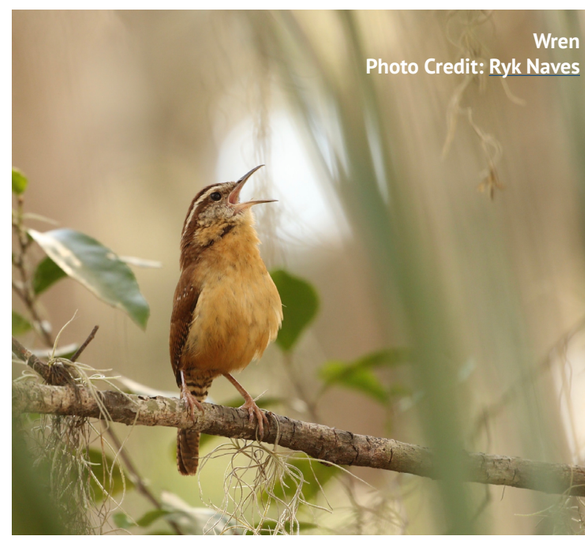
He and his team plan to take the boxes to schools and he hopes at some point the iconic symbol of the bird box will become recognizable as a place where one might be able to discreetly detect hearing loss.

The latest version of the box being developed, in partnership with the Dyson School of Design Engineering at Imperial College, will feature an even more sophisticated platform for diagnosis, including sound software that will, for instance, better adjust for the background sound conditions of the various places the boxes might be installed.

Woods describes the artistic and other humanly enjoyed benefits of birdsong as a kind of "parallel ambition." In addition to cleverly detecting hearing loss, there is little question that bringing such beautiful natural songs into the indoor spaces where we spend most of our time would be a profoundly beneficial outcome. Woods thinks of installations at The Turbine Hall at the Tate Gallery in London and wonders whether Hearing Birdsong could reach a similar audience to similar effect, in many cases visitors simply sitting down and letting the art wash over them. Wouldn't it be wonderful, he opines, if visitors are "tempted to just sit and enjoy half an hour of it, even if there is no diagnostic element."

Resources:

Hearing Birdsong. https://www.hearingbirdsong.com.



Wren
Photo Credit: Ryk Naves

Song Thrush
Photo Credit: Taco Meeuwsen