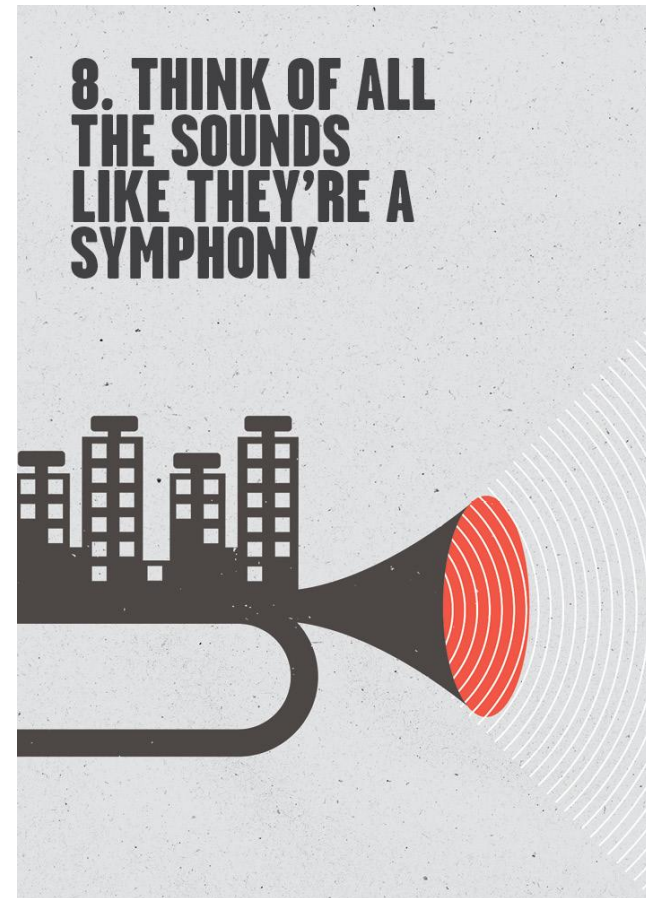


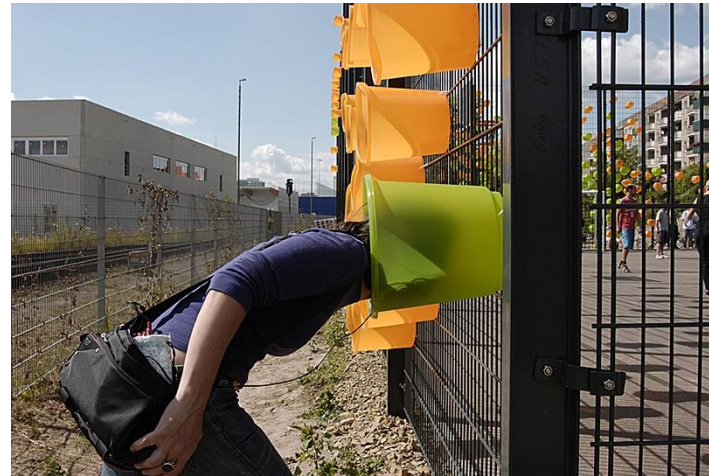


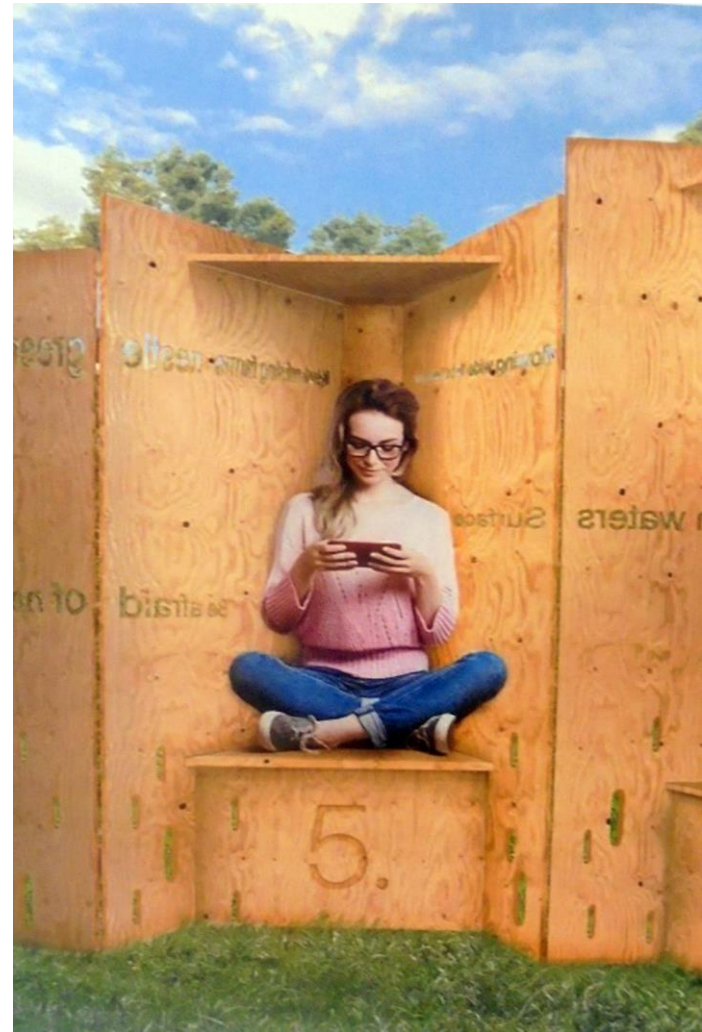
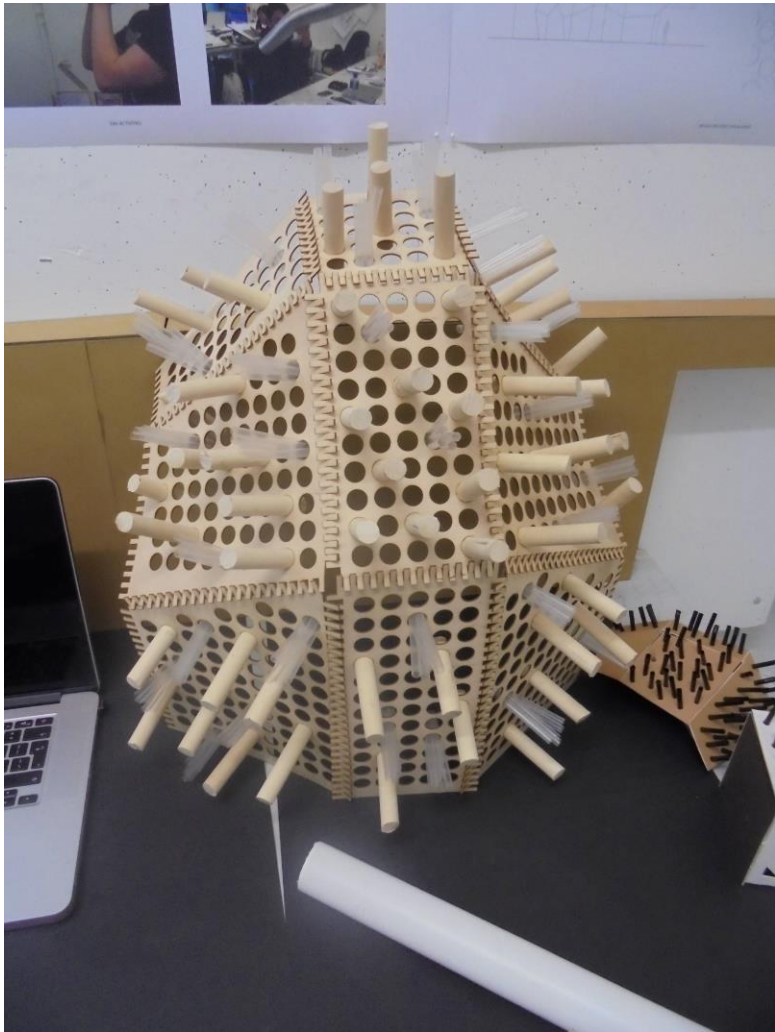
# Knowledge Exchange Seminar Series (KESS)

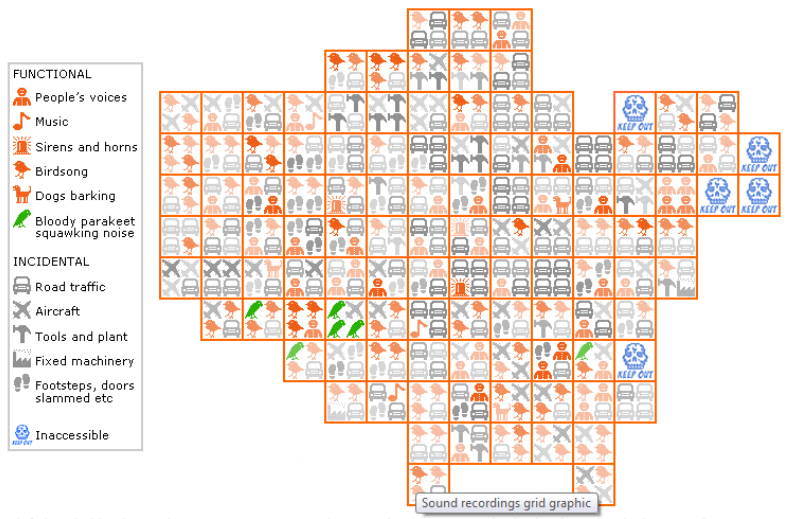
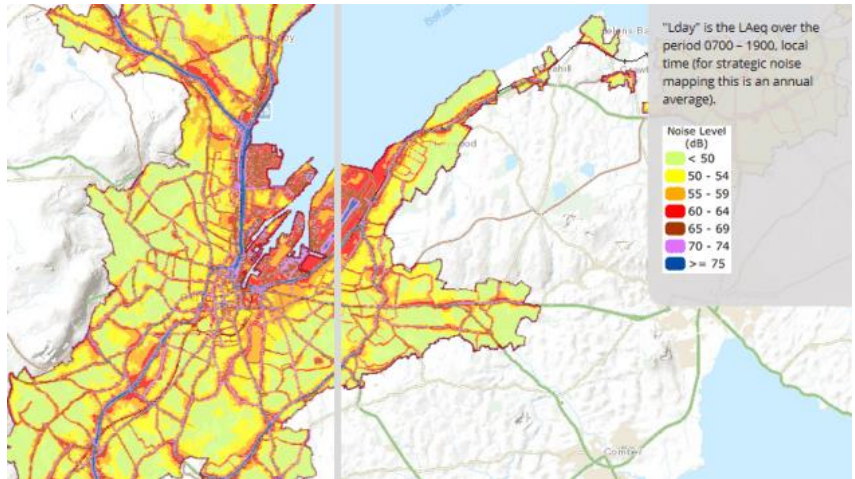
*...is a forum that encourages debate on a wide range of research findings, with the overall aim of promoting evidence-based policy and law-making within Northern Ireland*











# SOUND ANALYSIS EXAMPLE

Why is it important to consider sound? Several areas of the city are underused partly because of their poor acoustic quality. Here we show how a simple sound analysis can be carried out with the aim of better understanding an acoustic environment.

## ALBERTBRIDGE ROAD



The level of background noise on Albertbridge Road in Belfast is extremely high. Traffic noise masks pleasant sounds such as people chatting or leaves rustling. However, there are not many pleasant sounds even beneath the rumble of vehicles – why stop and have a conversation when you can't be heard? The acoustic environment of the Albertbridge Road is caught in a vicious cycle: it will not be more pleasant unless people contribute



more positive sounds, but as long as it is an unpleasant place in which to spend time, no new sounds will be created. Reducing traffic noise would quieten this space, but it would not necessarily make it more pleasant. What it really lacks is the **acoustic vibrancy of human activity**. Urban designers could catalyse this through creating **acoustically sheltered** places along the road in which people enjoy spending time.

### Albertbridge Road, 6PM, weekday

At the spot where the reading was taken, traffic noise overpowers any other potential sounds because the traffic is constantly speeding up or slowing down due to the traffic lights. It is therefore very difficult to have a conversation on the street.



**dB reading**  
60-75 with peaks at 78 with buses passing

**Conversations**  
Poor/reasonable

## 1 HEALTH AND WELL-BEING

For many cities, improving the health and well-being of citizens is a key consideration in future plans. In particular, many city planners want to promote physical activity through the careful design of streets, parks, residential areas, and workspaces. Simply put, the more active people are, the better their physical and mental health.

Sound can have an enormous impact on whether or not people feel at ease being 'out and about' in their cities. Streets and spaces which sound pleasant can promote physical activity and interaction with neighbours – both important measures for mental and physical health.

## BELFAST EXAMPLE NEWTOWNARDS ROAD



Belfast's Lower Newtownards Road is a well-used arterial route into the city. However, it struggles to maintain its role as a local high street due to a history of deprivation and political tensions. Belfast City Council has invested millions of pounds on environmental improvements under its *Renewing the Routes* scheme (2004-2016). Although this particular scheme was impactful and well received by local residents and businesses, pedestrian occupation of the street remains low.

While traffic noise masks existing pleasant sounds such as people chatting or birdsong, the variety of sounds beneath the din of traffic



is also very limited. There are few places along the pavement where people can move away from the road edge because it is so narrow, making this a particularly unpleasant pedestrian route. With nowhere to sit at a reasonable distance from such high levels of noise, both elderly and very young people could be discouraged from walking along Newtownards Road and will drive into the city instead. The acoustic environment and the walkability of a city are tightly interwoven: points of acoustic respite or acoustic interest along the road could encourage people to walk into the town centre along the Newtownards Road.

**Newtownards Road, 6:15PM, weekday**  
The spot where this reading was taken is on a pavement next to traffic that was stopping and starting due to traffic lights. Therefore the peaks of traffic noise were very loud compared to the relatively calm background noise level of 55 dB. This, combined with the close proximity to the moving traffic made the bursts of traffic noise particularly unpleasant.



**dB reading**  
55 - 65 with peaks at 80 when buses pass

**Conversations**  
Poor/reasonable

**Predominant Sounds:**  
High speed traffic passing, chatter.

**Background Sounds:**  
Rustling tree, footsteps.





Preferred Options Paper  
Public Consultation Report  
July 2017

# Local Development Plan

## 2020-2035



[www.belfastcity.gov.uk/LDP](http://www.belfastcity.gov.uk/LDP)



# Your future city

## The Belfast Agenda



A draft for consultation



## Nine core planning principles:

**1 Health and Well-being**

**2 Connectivity**

3 Safety

**4 Vibrancy**

5 Tourism

6 Sustainable Economic Growth

**7 Shared Space**

8 Biodiversity

9 Placemaking





## Health and Well-being

*Sing City*, 2010

Annah M Kassen







to remain relatively accurate and seasonal. The more people vote for a particular spot, the higher its rating, the more likely the service will be to direct people toward it. In public locations, hot spots will be labeled by the 'hot spots trail,' further explained in that section.

Both members and non-members can plan circular or destination walks (a feature of the iPhone application) by entering their location and the amount of time they have available, next to the map. The map then links the most popular hotspots in that area to plan a route corresponding to the given amount of time.

#### iv. an ear test page

This is the section devoted to discovery and learning. Within it are games, quizzes, tutorials, mnemonics, photos, info and audio files to help users learn their British birdsongs. There is also an open source component where users can help one another by answering peer questions and contributing to discussions. It is colourful and fun but runs fairly deep in terms of how much birdsong a person can learn if they so choose.

When a member plays a game or completes a quiz, results are updated to the 'ear test' section of their profile page. This allows them to see their progress as they move through different levels.

#### v. DIY (Do It Yourself)

If users get frustrated by always having to walk by someone else's garden to hear a bird, this is the page to help them. Whether they have access to a bathroom window or concrete lot, this page is full of information that can turn any outdoor space into a bird magnet. Projects run from being very quick and easy, such as putting up a bird feeder, to quite complex, such as digging a proper pond. They can also be chosen according to what bird a user wants to attract. To assist in this decision, certain species with declining numbers, like sparrows and starlings in winter for example, will be featured with easy tips on how to help them survive the cold.



#### 2) SMART PHONE APP

To the user, the app is primarily a vehicle for taking a breather within their day.

As mentioned, when a new member joins the online community, the app can be downloaded for free. It is then automatically synchronised with that particular user's profile page. Relevant changes made on the profile are automatically updated to the app, and vice versa, to avoid a dispersing of information. It facilitates the process of finding somewhere peaceful, in any given neighbourhood, within a constrained amount of time.

If they choose to, users can set the birdsong alarm call as a reminder. When they respond to the alarm, they are automatically directed

to the "plan a walk" page. From here, all they have to do is enter exactly how much time they have available, and the app, using GPS locating, plans a route within this given window.

Like with the live map, walks are planned by connecting the most popular 'hot spots' in an area that other users have tagged. There are default hot spots throughout London for areas with low activity. Depending on the season or how often new hot spots are discovered, it is possible that a 20 minute route from one location could vary from one day to the next.

Once given a route, all the user has to do is follow it. If they choose to, they can tag other hot spots along the way, or even vote for the

ones they like by doing the same thing. Again, the GPS does all the work and again, the information is immediately updated to the website.

By zooming in to their location on the map, they can view a list of the birds one can expect to hear in that location, the most common appearing first. Like with the hot-spots, default lists would be provided in the beginning, in the hopes that increased user activity would allow access to real-time data updating.

Selecting the image beside the name rotates the screen and provides a brief description of the bird and its song. There is a large photo, and a few mp3 tracks to play. Users can use the tracks for reference or to play out loud, prompting birds to call back.

**Kim Majkut | 31 years**  
In-house designer for a kid's television company in central London. Recently opened a SingCity Profile page online. Has just eaten her lunch while working in front of the computer again, but today has programmed her phone to remind her to take a break, get some oxygen and focus on something different.



Hearing birdsong, she picks up her iPhone and enters that she has 15 minutes to spare. →

The app generates a 16 minute walk for her by linking several "hot spots" in the area.



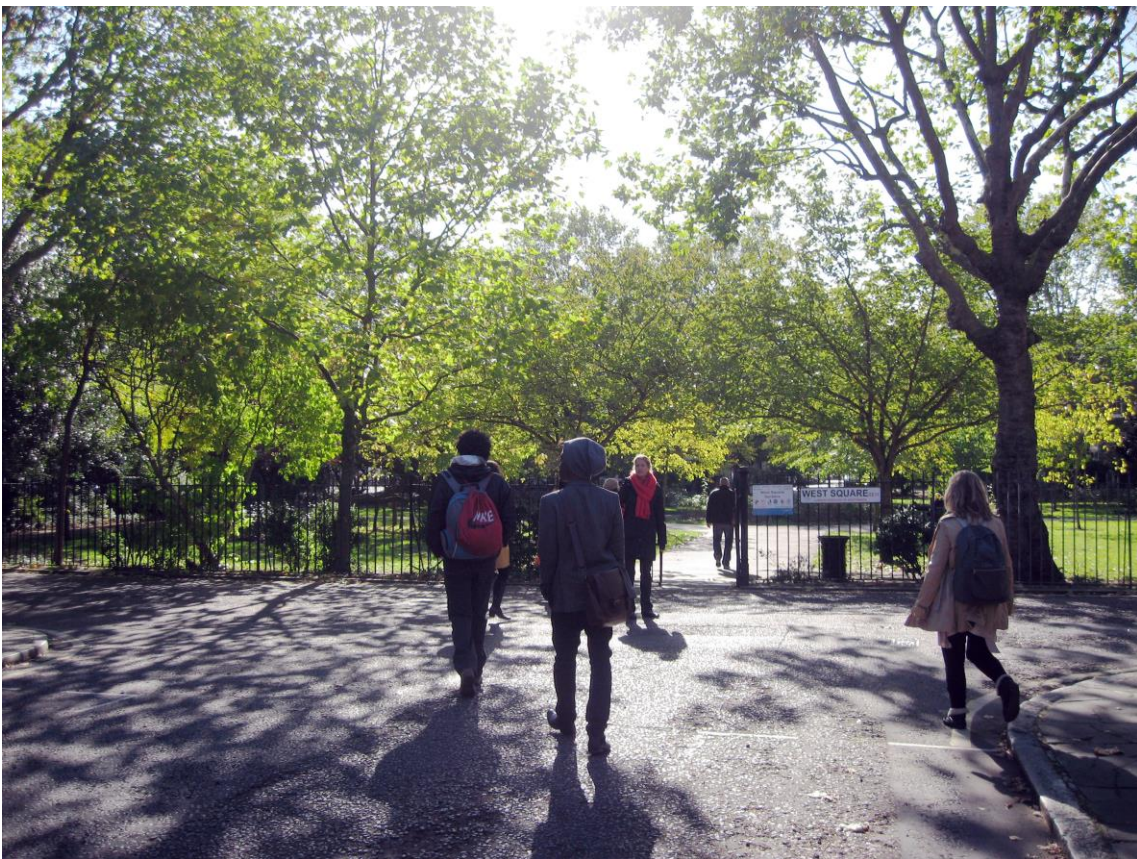
She tags someone's garden as a green spot and the coordinates are uploaded to a live map. →

In a park, she zooms in on the map and sees what birds are commonly heard there.



Selecting one of them, she plays the song and a blackbird calls back. She selects "heard it." →

Back at the office, she logs her walk and sees the "rundown" newly added to her profile.





## Connectivity

### *Light Neville Street, 2009*

Bauman Lyons Architects

Hans Peter Kuhn, Sound Artist

Ove Arup, Sound and Lighting Engineers

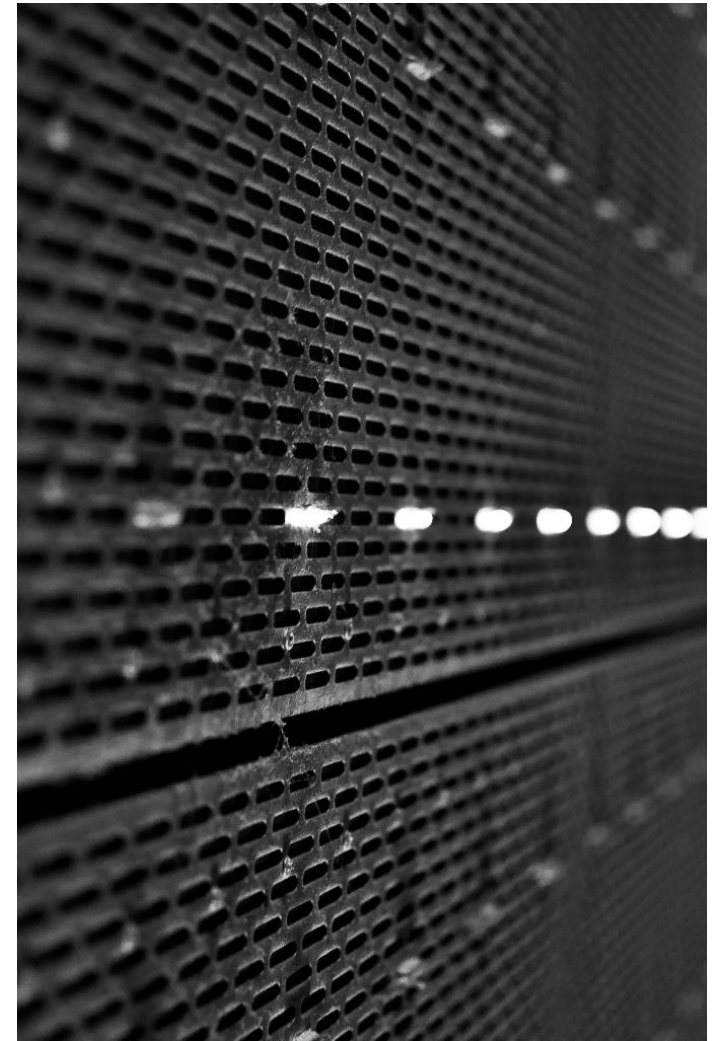
Media and Arts Partnership













## Vibrancy

*Impulse*, 2015-2016

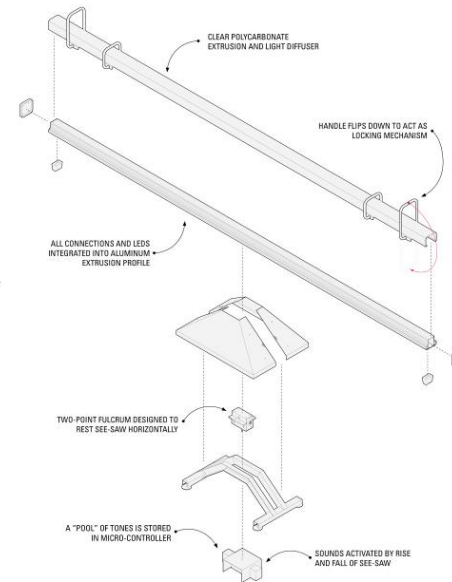
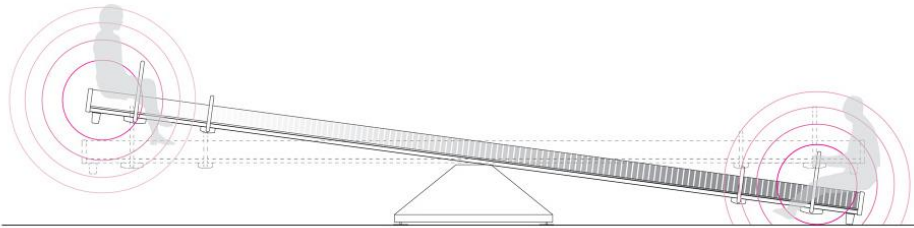
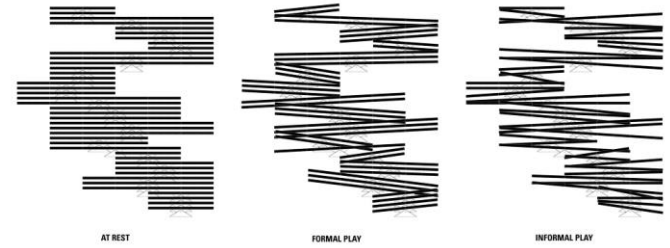
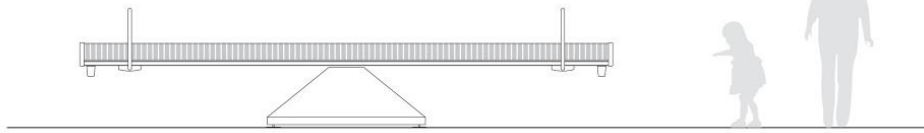
Lateral Office, Architects

Mitchell Akiyama, Sound Artist







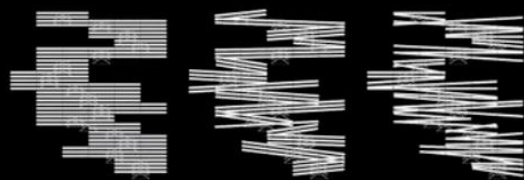




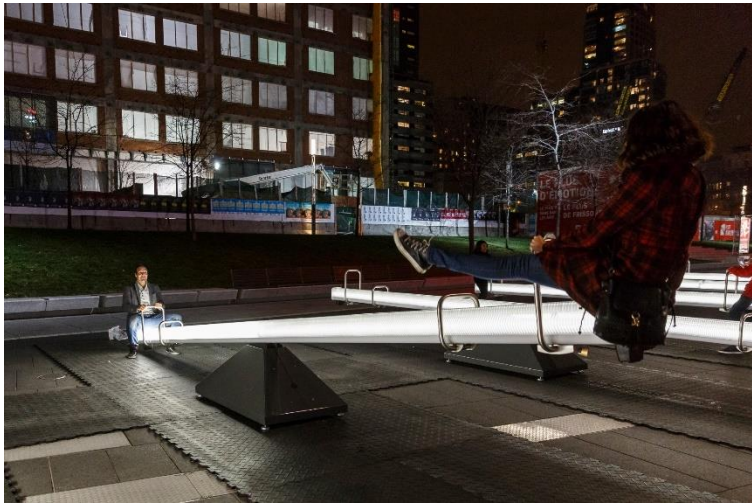




# IMPULSE



Assembly



## Tourism

***Zadar Sea Organ*, 2005**

Nikola Bašić, architect

Vladimir Andročec , sea hydraulics consultant

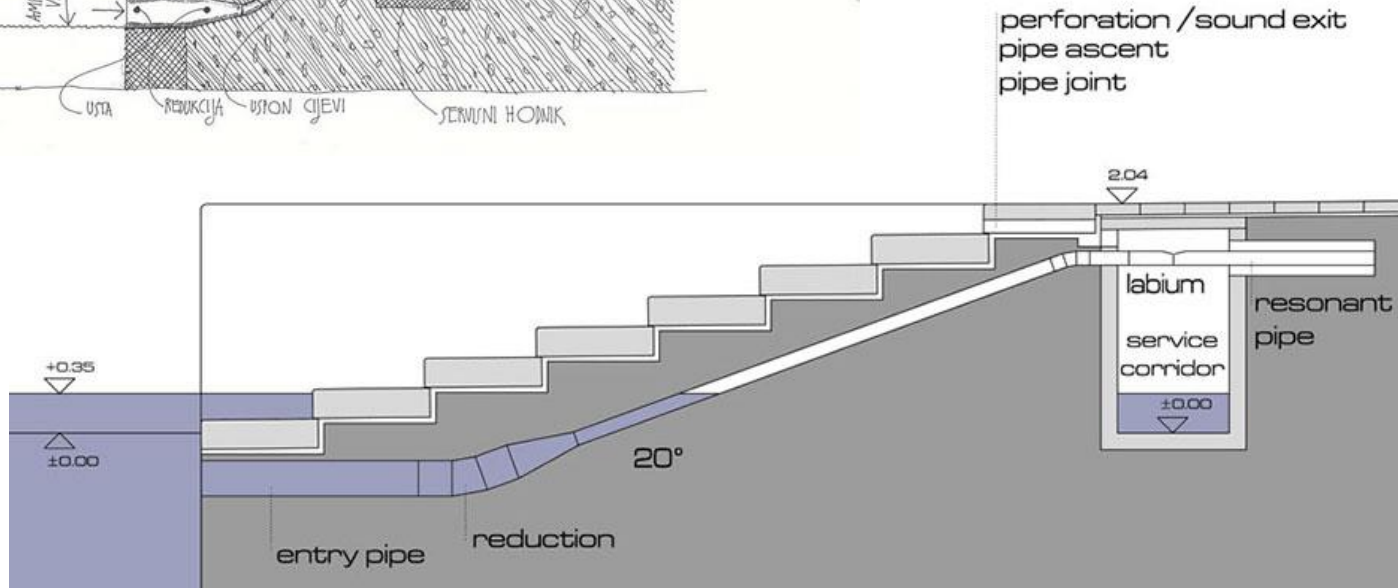
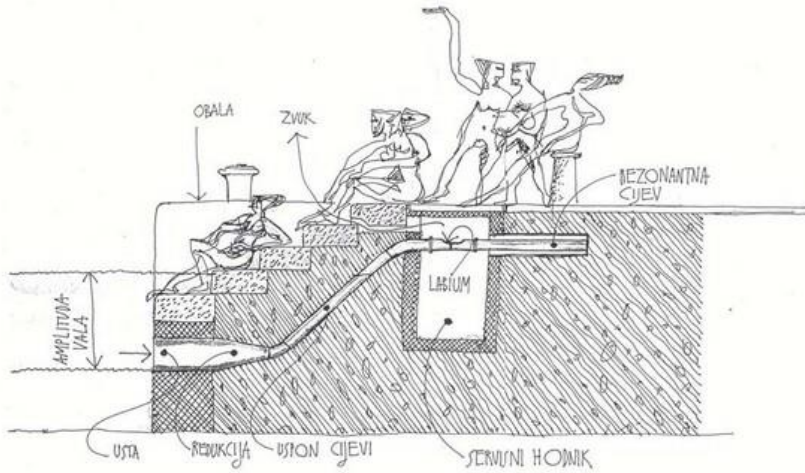
Goran Ježina, pipe maker













Assembly

Knowledge Exchange Seminar Series (KESS)





## Economic Growth

### Forgotten Songs

Michael Hill, Artist

Richard Major, Senior Research Scientist

Fred van Gessel, Field Recordings

Lightwell, Audio System Design and Programming

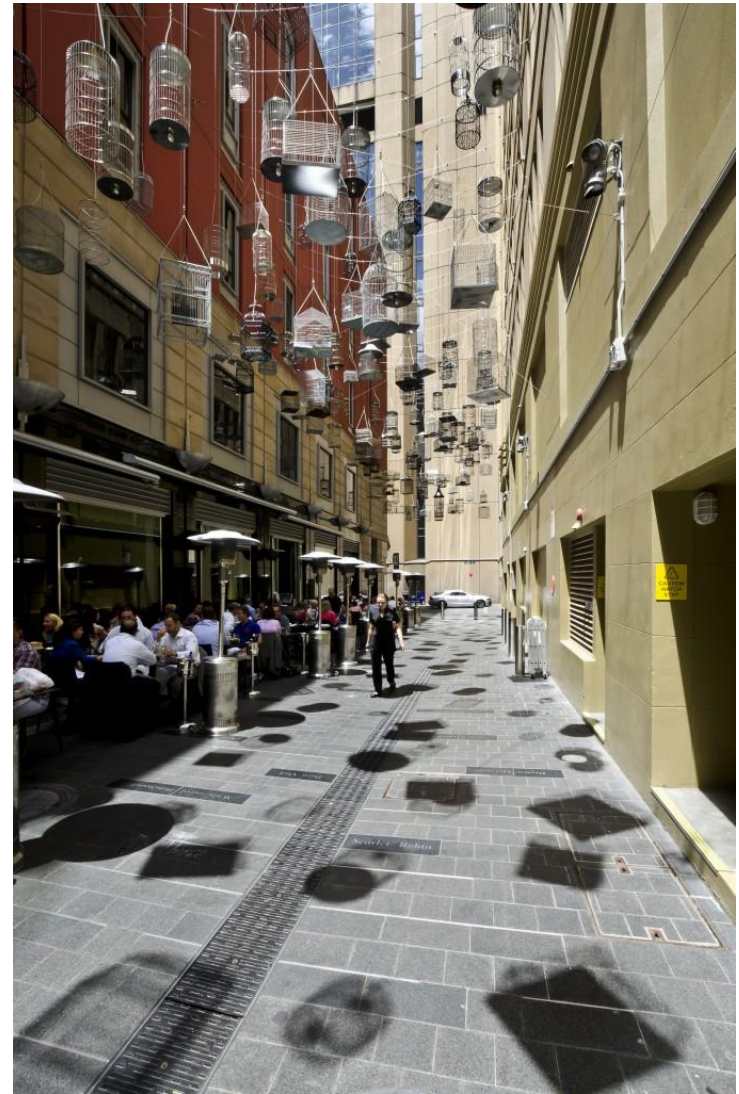
Freeman Ryan Design, Graphic Design

Aspect Studio, Landscape Architecture









## Shared Space

***Voice Tunnel***, 2013

Rafael Lozano-Hemmer, Sound Artist













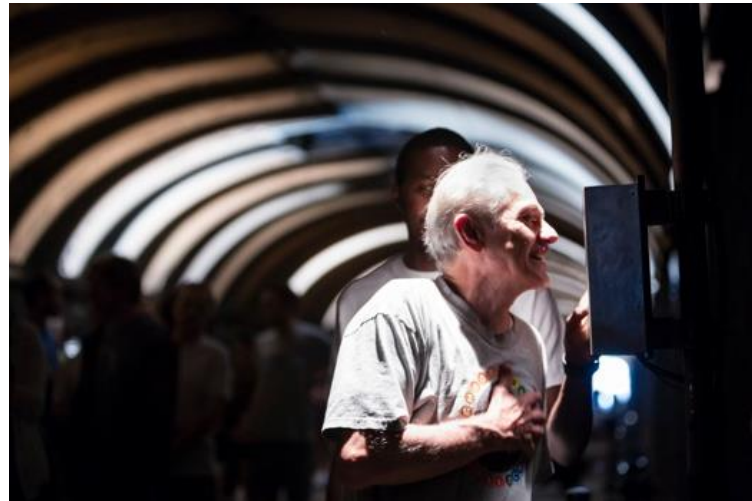
creatorsproject

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## Knowledge Exchange Seminar Series (KESS)

*...is a forum that encourages debate on a wide range of research findings, with the overall aim of promoting evidence-based policy and law-making within Northern Ireland*